Annual Scientific Meeting 2013

Changes in Healthcare and the Effects on Medical Education

Abstracts and conference papers
2013 Annual Scientific meeting
Changes in Healthcare and the Effects on Medical Education 10-12th July
Edinburgh Napier University, Sighthill Campus, Edinburgh, UK

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General Information

Welcome to Edinburgh & the 2013 ASM.

Registration Desk
Conference registration will take place alphabetically at Sighthill campus in the registration room to the right of the main entrance. The registration area will be manned at all times during the conference.

Name badges
These will be issued at the registration desk. Please return them to the registration area after the conference.

Posters Boards
Posters will be displayed in LRC (level 5) for the duration of the ASM. The Poster Session is scheduled for Thursday 11th July between 9-10.30am. Poster authors will be on hand to answer questions about their work during this session. An index of posters along with the full abstracts are presented on this memory stick.

ePosters
We are pleased to showcase ePosters for the first time at the ASM. The eposters will be presented in separate parallel sessions on level 3 on Wednesday 10th July from 2-4.30pm and Thursday 11th July from 9-10.30am.

Parallel session presenters
A speakers preview room has been set up on level 2. If you are presenting within the parallel sessions please go to this room the morning you are presenting with your USB stick and upload your presentation. It will then be filtered to the correct room by AV technicians. Please name your presentation: day/time/room/surname.

Workshops
Please attend the workshops or concurrent sessions that you selected to attend at registration stage.

Exhibitors
A variety of exhibitors will be situated in the Atrium. The exhibition will remain open for the duration of the conference.

Catering & refreshment breaks
Lunches and refreshments will be served in the Atrium (ground floor) each day. There is also a Starbucks counter where you can purchase drinks. Tea/coffee will be offered continuously in the registration room and also in the LRC (level 5) where the poster boards are situated.

Message/Notice Board
A message/notice board will be positioned in the foyer.
Wifi access
Wi-fi is available throughout the venue using a unique individual Wifi code that you will be given at registration. Please keep this code in a safe place and use it each day of the conference. We do ask that you turn your devices off when in plenaries and sessions to avoid continuous downloading of emails etc.

Evaluation
Delegates will be emailed a direct link to an online conference evaluation form after the event. We value your comments and feedback and by participating in the evaluation you will be entered into a draw for a free conference place for the 2014 ASM in Brighton.

Taxis
Local taxi companies: 0131 229 2468 & 0131 228 1211

Social Events
Welcome Reception
Join us at the Welcome Reception on Wednesday 10th July from 7pm – 9pm. The event will be held at Dovecot Studios, Infirmary Street, Edinburgh. Canapés and drinks will be served.

Annual Dinner
The Annual Dinner will be held at The Assembly Rooms on George Street, Edinburgh, on Thursday 11th July. Pre-dinner drinks will be served from 7.30pm with dinner at 8pm. There is no seating plan at the Annual Dinner (apart from the top table) so if you have paid for a ticket, please feel free to sit where you wish.

Dietary Requirements (for the Annual Dinner only)
If you have booked to attend the Annual Dinner and have notified us of a specific dietary requirement, please let your table waiter know once seated.

Luggage/cloaks room
Level 3, room 11

Quiet/prayer room
Level 3, room 12

Programme changes
Any room changes or withdrawn presentations will be noted on the notice board in the foyer area.

Emergencies
In the event of an emergency please contact a member of ASME staff. From Tuesday 9th July – Friday 12 July, ASME can be contacted on 07504 035 421.
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<td>Registration &amp; arrival refreshments</td>
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<td>9.30 – 11.30</td>
<td><strong>Workshops</strong>&lt;br&gt;1. Mind, Body &amp; Spirit – teaching spiritual care to medical students&lt;br&gt;2. Helping medical students develop their information management skills within the consultation&lt;br&gt;3. Painting the picture to fit the frame: the potential for professional regulation to become a driver for medical education&lt;br&gt;4. Sexuality matters: how to run a workshop to improve the understanding and experience of LGBT patients within the healthcare system&lt;br&gt;5. The RUH teaching checklist: why, when and how to use it&lt;br&gt;6. Teaching in the clinical environment: from clinical chaos to educational excellence&lt;br&gt;7. Using free open access medical education (#FOAMed) to develop and support communities of learners for lifelong learning&lt;br&gt;8. Exploring depression amongst undergraduate medical students&lt;br&gt;9. Exploring a new paradigm for achieving shared decision-making in clinical practice – ‘skilled helping’&lt;br&gt;10. So, how can I get involved with medical education as a student&lt;br&gt;11. Presenting skills for new presenters - a personal development opportunity for the novice presenter</td>
<td>Level 2&lt;br&gt;room 3&lt;br&gt;room 8&lt;br&gt;room 10&lt;br&gt;room 13&lt;br&gt;room 14&lt;br&gt;room 4&lt;br&gt;room 12&lt;br&gt;room 7&lt;br&gt;room 11&lt;br&gt;Level 3, room 4</td>
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<td>11.30 – 12.00</td>
<td>Refreshments, viewing of exhibits &amp; posters</td>
<td>Atrium &amp; LRC (level 5)</td>
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<td>11.30 – 12.00</td>
<td>JASME Orientation - a guide on how to get the most out of the ASM for Junior/student Doctors</td>
<td>Lecture Theatre 2</td>
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<td>12.00</td>
<td>Welcome: Sir Graeme Catto, ASME President</td>
<td>Lecture Theatre 1</td>
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<td>12.05 – 12.30</td>
<td>The Lord Cohen Lecture&lt;br&gt;Charles Friedman, Professor and Director of the Health Informatics Program, University of Michigan, USA</td>
<td>Lecture Theatre 1</td>
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<td>12.30 – 1.25</td>
<td>Lunch &amp; viewing of exhibits &amp; posters</td>
<td>Atrium &amp; LRC (level 5)</td>
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<td>1.30 – 1.55</td>
<td>New Researcher Award 2013&lt;br&gt;How can I improve my practice as a University Lecturer in the development and delivery of a distance learning module in a post graduate diploma in clinical education?&lt;br&gt;Dr Laura Delgaty, Lecturer, School of Medical Sciences Education Development, Newcastle University</td>
<td>Lecture Theatre 1</td>
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<td>2.00 – 4.00</td>
<td>Educator Development Group&lt;br&gt;‘Speed dating’ session</td>
<td>Level 3, Room 4</td>
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<td>ASME Council Meeting</td>
<td>Level 3, Room 5</td>
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<td>7.00 – 9.00</td>
<td>Welcome Reception&lt;br&gt;Refreshments and canapés</td>
<td>Dovecot Studios&lt;br&gt;Infirmary Street Edinburgh&lt;br&gt;Supported by Wiley-Blackwell</td>
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<td>9 - 10.30</td>
<td><strong>Educator Development Group</strong></td>
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<td>What's Hot in Learning and Teaching Innovations in Medical Education?</td>
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<td>Session Chair: Professor Gill Doody, EDG Chair</td>
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<td>9 - 10.30</td>
<td><strong>Extended ERG meeting</strong></td>
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<td>9 – 10.30</td>
<td><strong>TASME meeting – Trainees at ASME</strong></td>
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<td>9 – 10.30</td>
<td><strong>TEL meeting – Technology enhanced learning</strong></td>
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<td><strong>Psychometrics meeting</strong></td>
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<td>9 -10.30</td>
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<td><strong>Workshops</strong></td>
<td>Level 2</td>
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<td>1. Education for sustainable healthcare - national consultation on learning outcomes project</td>
<td>room 12</td>
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<td>2. Widening participation: access to medical school for all?</td>
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<td>4. Helping undergraduate medical students to improve their clinical reasoning in the direct patient encounter – skills for tutors</td>
<td>room 11</td>
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<td>5. Dim, describe &amp; draw! An innovative method of teaching interpretation of skeletal radiographs</td>
<td>room 14</td>
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<td>6. Student narratives as a learning tool</td>
<td>room 10</td>
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<td>7. Patient &amp; public involvement (PPI) in health and social care education: what works, why, and where are the gaps?</td>
<td>room 8</td>
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<td>8. Spotting and Supporting Trainees with Difficulties</td>
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<td>9. JASME - Setting up a research project in medical education</td>
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<td>10. JASME - Teaching toolkit</td>
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<td>11 – 12.00</td>
<td><strong>Institutional Members Forum</strong></td>
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<td>Presentation of The ASME Gold Medal 2013</td>
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<td>Professors Richard and Sylvia Cruess, Centre for Medical Education at McGill University, Canada</td>
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<td></td>
<td>Question and Answer session</td>
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<td><strong>Session Chair:</strong> Professor Patsy Stark, ASME Director of Strategic Development</td>
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<td>2.40 – 5.00</td>
<td><strong>Parallel sessions including the ERG Themed Research &amp; TEL session</strong></td>
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<td><strong>ASME AGM - open to ASME members &amp; others who wish to attend</strong></td>
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<td>8.00 – 11.00</td>
<td><strong>Annual Dinner</strong></td>
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<td>Pre-dinner drinks at 7.30pm</td>
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<td>9 – 11.00</td>
<td><strong>Workshops</strong></td>
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<td>1.</td>
<td>iCan : How and why to use tablet computers in healthcare education</td>
<td>room 3</td>
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<td>2.</td>
<td>Leading service improvement: Learning to be a leader through practice-based inquiry</td>
<td>room 4</td>
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<td>3.</td>
<td>Core public health for tomorrow’s doctors: who, what, why, where, when, how?</td>
<td>room 8</td>
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<td>4.</td>
<td>Creation of ethical, legal &amp; professional virtual patients</td>
<td>room 11</td>
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<td>5.</td>
<td>Sharing experiences of establishing and embedding e-Learning modules on prescribing principles into the curriculum</td>
<td>room 13</td>
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<td>6.</td>
<td>Assessing doctors’ competences at the end of training - the entrance 'not an Exit'</td>
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<td>7.</td>
<td>Medical educators as curriculum leaders: a CoP approach to medical education</td>
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<td>8.</td>
<td>Achieving vertical curriculum design using changes in medical imaging and anatomy</td>
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<td>9.</td>
<td>Medical educators’ beliefs: their role in effective teaching and remediation</td>
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<td>9 – 11.00</td>
<td><strong>Writing for publication Journal Clinic (by appointment, places limited)</strong></td>
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<td>Stephen Chapman, University of Leeds</td>
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<td>Anatomy in Medical Education: Perceptions of Undergraduate Medical Students</td>
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<td><strong>Session Chair: Dr Vincent Cooper, JASME Liaison Lead</strong></td>
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<td>11.50 – 11.55</td>
<td><strong>Announcement of EDG Travelling Fellowship Award Winners &amp; Announcement of poster prize winner(s)</strong></td>
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<td>11.55 – 12.00</td>
<td><strong>Announcement of winners of the Journal Travelling Fellowships 2013, Silver Quill award 2013, Impact award 2013, The Henry Walton award &amp; The Critics Choice award</strong></td>
<td>Lecture Theatre 1</td>
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<td><strong>Session Chairs: Kevin Eva, Editor, Medical Education and Professor Jennifer Cleland, Associate Editor, The Clinical Teacher</strong></td>
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<td>12.05 – 1.05</td>
<td><strong>Parallel sessions</strong></td>
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<td>Changes in healthcare delivery derived from changes in healthcare deliverers</td>
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<td></td>
<td><strong>Kevin Eva - Editor, Medical Education</strong></td>
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<td><strong>Session Chair: Sir Graeme Catto, ASME President</strong></td>
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<tr>
<td>1.40</td>
<td><strong>Take away lunch and close of conference</strong></td>
<td>Atrium</td>
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<td>2.00 – 4.00</td>
<td><strong>TASME meeting &amp; elections for new TASME Committee 2013-14</strong></td>
<td>Level 3, room 5</td>
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<td><strong>Journal Board of Management and Strategy Meeting</strong></td>
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<td><strong>Closed meeting</strong></td>
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Main Speaker Biosketches
Charles Friedman joined the University of Michigan in September of 2011 as Professor of Information and Public Health, and Director of the new Michigan health informatics program. This appointment follows 8 years with the U.S. federal government, prior to which Dr. Friedman served for 26 years as a faculty member and administrator in two schools of medicine. Throughout his career, Dr. Friedman’s primary academic interests have intertwined biomedical informatics and the education of health professionals.

Most recently, Dr. Friedman held executive positions at the Office of the National Coordinator for Health IT (ONC) in the U.S. Department of Health and Human Services: from 2007 to 2009 as Deputy National Coordinator and from 2009 to 2011 as ONC’s Chief Scientific Officer. While at ONC, Friedman oversaw a diverse portfolio of nationwide activities that included early steps toward development of a “Learning Health System”, education of the nation’s health IT workforce, health IT research activities, evaluation of ONC’s programs, and international cooperation for eHealth. He was the lead author of the first national health IT strategic plan which was released in June of 2008, and led the development of an EU-US Memorandum of Understanding on eHealth.

From 2003 to 2006 Dr. Friedman was Senior Scholar at the National Library of Medicine where he oversaw NLM’s training and bioinformatics grant portfolios, and played a prominent role in developing the National Centers for Biomedical Computing. From 2006 to 2007, he served as an Associate Director and Chief Information Officer of the National Heart, Lung and Blood Institute.

Prior to his work in the government, from 1996 to 2003, Dr. Friedman was Professor of Medicine, Associate Vice Chancellor for Biomedical Informatics, and Founding Director of the Center for Biomedical Informatics at the University of Pittsburgh. He served from 1977 to 1996 in a range of faculty and administrative roles in the School of Medicine at the University of North Carolina at Chapel Hill. He directed the Office of Educational Development, and served as Assistant Dean for Medical Education and Medical Informatics.

Dr. Friedman is an elected fellow and past president of the American College of Medical Informatics, and an Associate Editor of the Journal of the American Medical Informatics Association. He was the 2011 recipient of the Donald Detmer award for policy innovation in biomedical informatics. He is co-author of a textbook on Evaluation Methods for Biomedical Informatics. He was founding chair of the Group on information Resources of the Association of American Medical Colleges, and also chair of the AAMC’s Group on Educational Affairs.
Professor Richard L. Cruess graduated with a Bachelor of Arts from Princeton in 1951 and an MD from Columbia University in 1955. He is Professor of Orthopedic Surgery and a Member of the Centre for Medical Education at McGill University. An orthopedic surgeon, he served as Chair of Orthopedics (1976-1981), directing a basic science laboratory and publishing extensively in the field. He was Dean of the Faculty of Medicine at McGill University from 1981 to 1995. He was President of the Canadian Orthopedic Association (1977-1978), the American Orthopedic Research Society (1975-1976), and the Association of Canadian Medical Colleges (1992-1994). He is an Officer of The Order of Canada and of L’Ordre National du Québec. Since 1995, with his wife Dr. Sylvia Cruess, he has taught and carried out independent research on professionalism in medicine. They have published widely on the subject and been invited speakers at universities, hospitals, and professional organizations throughout the world. In 2010 McGill University established the Richard and Sylvia Cruess Chair in Medical Education.

Professor Sylvia R. Cruess graduated from Vassar College with a Bachelor of Arts in 1951 and an MD from Columbia University in 1955. She is an Endocrinologist, Professor of Medicine, and a Member of the Centre for Medical Education at McGill University. She previously served as Director of the Metabolic Day Centre (1968-1978) and as Medical Director of the Royal Victoria Hospital (1978-1995) in Montreal. She was a Member of the Deschamps Commission on Conduct of Research on Humans in Establishments.
Presidents Award recipient

Katharine Boursicot BSc MBBS MRCPG MAHPE NTF is a Reader in Medical Education at St George’s, University of London, where she is Head of Assessment. Prior to moving to SGUL, she held the post of Senior Lecturer in Medical Education and Head of Assessment at Barts and the London, QMUL. She also spent 3 years as Associate Dean for Assessment at the University of Cambridge School of Clinical Medicine.

She graduated with a degree in Medicine from the Medical College of St Bartholomew's Hospital and a BSc in Anatomy from King's College, London, and spent 18 years as an Obstetrician Gynaecologist. After completing a Masters in Education at the Institute of Education in London, she moved full-time into medical education.

She has advised nationally and internationally on the development of programmes of assessment and the implementation of OSCEs in undergraduate medicine, dentistry and veterinary medicine. She has been a consultant on assessment to a number of Royal Medical Colleges in the UK as well as the General Medical Council's Performance Procedures and PLAB. Currently, she is a QABME Visitor and a member of the Medical Schools Council Assessment Board.

She was the Association for the Study of Medical Education (ASME) Treasurer for six years and the Chair of the Board of Management of ASME’s journals, Medical Education and The Clinical Teacher, for 5 years.

Her main research interests are in standard setting, the assessment of clinical competence and professionalism and she has published widely on standard setting, OSCEs and equity and diversity issues in medicine.
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<td><strong>Clinical Skills</strong></td>
<td>The Role of Feedback in Technical Skills Acquisition: Investigating the Efficacy of Video Assisted Feedback&lt;br&gt; Craig Nesbitt</td>
<td>The UK Endovascular Trainee (UKETS): A Novel Collaborative Training Group. Promoting Patient Safety Through Basic Endovascular Skills Training&lt;br&gt; Alyson Williamson</td>
<td>Use of simulation to support junior doctors with learning needs&lt;br&gt; Juveria Siddiqui</td>
<td>The use of otological simulation in medical undergraduates: can generic skills be acquired from a specific surgical model?&lt;br&gt; Craig Nesbitt</td>
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<td><strong>Teaching &amp; Learning</strong></td>
<td>An Evaluation of Student Assistantships; the Peninsula Medical School Experience&lt;br&gt; Hisham Khalil</td>
<td>Remediation of At-Risk Medical Students: Theory in Action&lt;br&gt; Kailani Winston</td>
<td>Investigating students' perceptions of professionalism&lt;br&gt; Caroline Robertshaw</td>
<td>Exploring students' motivations for undertaking the Following My Footsteps' programme – a novel approach to teaching in undergraduate paediatrics&lt;br&gt; Jo Horsburgh</td>
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<td><strong>Teaching &amp; Learning</strong></td>
<td>Getting away with murder… A novel way to introduce mental illness and its symptoms to 2nd year medical students&lt;br&gt; Benjamin Lomas</td>
<td>Medical student prescribing in the workplace (pre-prescribing): Implementation and evaluation update&lt;br&gt; Sam Smith</td>
<td>Linking workplace and workshop activity: Teacher education courses for doctors in postgraduate training&lt;br&gt; Victoria Brook - Dr Rachel Robinson</td>
<td>Building Tomorrow’s Doctors: A Paediatric approach to Student Assistantships&lt;br&gt; Alastair Revolta</td>
</tr>
<tr>
<td><strong>Undergraduate Education</strong></td>
<td>Does introducing Basic Life Support (BLS) and simulation training improve third year medical students' confidence in learning from acutely unwell patients?&lt;br&gt; Deborah Mann</td>
<td>Final year medical students: are they ready for ‘allow natural death’ decisions?&lt;br&gt; Deborah Mann</td>
<td>What are the barriers that discourage third and fifth year medical students from seeing sick patients? Do they differ for foundation year 2 doctors?&lt;br&gt; Deborah Mann</td>
<td>Which patients do third year medical students avoid?&lt;br&gt; Deborah Mann</td>
</tr>
<tr>
<td><strong>Undergraduate Education</strong></td>
<td>Feedback on Clinical Attachments in Medicine in a Tertiary Care NHS Hospital&lt;br&gt; Philippa Toscani</td>
<td>Simulation for Foundation Year Survival Skills (SIMFYSS) - Using simulation to teach medical undergraduates to care for elderly inpatients before entering the UK Foundation Programme&lt;br&gt; George Meeks</td>
<td>Good prescribing practice requires practice prescribing: Incorporating mock prescribing into final year medical student clerking portfolios&lt;br&gt; Ailie Strachan</td>
<td>Who said anatomy is boring&lt;br&gt; Ashley Dennis</td>
</tr>
<tr>
<td><strong>Postgraduate Education</strong></td>
<td>Medical Trainees’ lived experience of leadership and followership in the interprofessional workplace learning environment&lt;br&gt; Liis Gordon</td>
<td>“If it was monkeys in the zoo, there’s one person who’s very much … the alpha male”: A metaphorical analysis of medical trainees’ talk about leadership and followership&lt;br&gt; Liis Gordon</td>
<td>Mentoring for Severn Deanery Obstetric and Gynaecology Trainees&lt;br&gt; Cressida Bond</td>
<td>Understanding foundation trainees’ experiences of the new supervised learning events&lt;br&gt; Ashley Dennis</td>
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<tr>
<td><strong>Postgraduate Education (6) &amp; Widening Access to Medicine (1)</strong></td>
<td>Methodological Quality of Studies Evaluating Lay Person Intimate Examination Training&lt;br&gt; Sophie Miyawaki</td>
<td>Assessing Foundation Doctors’ knowledge of ionising radiation from common radiological investigations: audit and re-audit&lt;br&gt; Jennifer Stevens</td>
<td>By incorporating the education of medical students and trainees in outpatient clinics, is the patient experience enhanced and their quality of care&lt;br&gt; Maria Stade</td>
<td>Exploration of Foundation doctors concepts of mentoring in a near-peer mentoring scheme&lt;br&gt; Lynn Monrouxe</td>
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<td>2.00-2.20pm</td>
<td>Assessment</td>
<td>Alistair Revolta Jennifer Johnston</td>
<td>Level 2, Rm 12</td>
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<tr>
<td>2.20-2.40pm</td>
<td>The view from the other side: reframing OSCEs through standardised patients' experience as raters</td>
<td>Jennifer Johnston</td>
<td>Level 2, Rm 12</td>
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<tr>
<td>2.40-3.00pm</td>
<td>The role of the Internet in teaching communication skills to medical students</td>
<td>Muhammad Imran Omar</td>
<td>Level 2, Rm 12</td>
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<tr>
<td>3.00-3.20pm</td>
<td>Prescribing Skills Assessment (PSA): A national online assessment of prescribing-related skills and knowledge</td>
<td>Simon Maxwell</td>
<td>Level 2, Rm 12</td>
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<tr>
<td>2.00-2.20pm</td>
<td>Basic Science Teaching/Education (4); Basic Science Teaching (1); Curriculum Planning (2)</td>
<td>Kevin McConville Sophie Rintoul-Hoad</td>
<td>Level 2, Rm 13</td>
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<tr>
<td>2.20-2.40pm</td>
<td>Team Based Learning (TBL) for Medical Students (Incorporating TBL into a medical school undergraduate curriculum)</td>
<td>Kevin McConville</td>
<td>Level 2, Rm 13</td>
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<td>2.40-3.00pm</td>
<td>Learning through making: The use of anatomical model building in undergraduate anatomy education</td>
<td>Sophie Rintoul-Hoad</td>
<td>Level 2, Rm 13</td>
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<tr>
<td>3.00-3.20pm</td>
<td>A review of the factors influencing the transition from student to junior doctor</td>
<td>Cameron Alexander</td>
<td>Level 2, Rm 13</td>
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<tr>
<td>2.00-2.20pm</td>
<td>Career Decision Making (1); Selection (6)</td>
<td>Jen Geldard Ed Clapham</td>
<td>Level 2, Rm 14</td>
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<tr>
<td>2.20-2.40pm</td>
<td>Career preferences in new-entrant and exiting medical students in Scotland</td>
<td>Jen Geldard Ed Clapham</td>
<td>Level 2, Rm 14</td>
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<tr>
<td>2.40-3.00pm</td>
<td>What makes an 'ideal' medical school entrant? The views of academics, clinicians, laypersons and current medical students involved in the admissions process.</td>
<td>Celia Taylor Michael Chan</td>
<td>Level 2, Rm 14</td>
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<td>3.00-3.20pm</td>
<td>Evaluation of the Birmingham Multiple Mini Interview (MMI) for medical student selection</td>
<td>Celia Taylor Michael Chan</td>
<td>Level 2, Rm 14</td>
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<tr>
<td>10th July 2013, 2.00pm - 3.20pm</td>
<td>Does experience of public performance relate to students' results in the OSCE examination?</td>
<td>Celia Taylor Michael Chan</td>
<td>Level 2, Rm 14</td>
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<td>3.20-3.40pm</td>
<td>Satellite Centre Provision of the Surgical Skills for Students Course: Results of a 1 year pilot study</td>
<td>Level 2, Rm 3</td>
<td>Philippa Tostevin</td>
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<td>Developing Undergraduate Surgical Skills, what a difference a day makes</td>
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<td>Philippa Tostevin</td>
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<td>Using patterns of error in acute care to inform educational strategies</td>
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<td>Vicky Talenira</td>
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<td>3.20-3.40pm</td>
<td>What are the drivers and barriers to students accepting a web-based virtual patient technology?</td>
<td>Level 2, Rm 4</td>
<td>Stephen Corry</td>
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<td>Exploring medical student clinical learning behaviours - should we be redirecting our resources?</td>
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<td>Georgina Margotta</td>
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<td>Learning in teams to work in teams - Integrated teaching in general practice</td>
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<td>John Buckley</td>
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<td>3.20-3.40pm</td>
<td>The natural progression of peer assisted learning: peer led education</td>
<td>Level 2, Rm 5</td>
<td>Laura Smith</td>
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<td>An Analysis of the Effectiveness of Tutor-Supported Academic Discussion Forums for Medical Students using Telecommunication Technology</td>
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<td>Nicola Charlotte Taylor</td>
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<td>The ideal student assistantship: responsibility under supervision</td>
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<td>Alexander Fullbrook</td>
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<td>3.20-3.40pm</td>
<td>Final year medical students' attitudes and knowledge about handover: can they be improved by teaching using methods applied by other high risk industries?</td>
<td>Level 2, Rm 7</td>
<td>Adam Youssef</td>
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<td>Does therapeutics teaching by pharmacists improve prescribing competencies and confidence? Is this enhanced when teaching is ward-based rather than in the class room?</td>
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<td>Adam Youssef</td>
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<td>Spirituality and Health Education and Research: A National Survey of Academic Leaders in UK</td>
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<td>Avril Culatto</td>
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<td>3.20-3.40pm</td>
<td>&quot;I Can See You’re Angry&quot;: The use of actor reported ‘anger scores’ as an aid to debrief in a challenging communication scenario</td>
<td>Level 2, Rm 8</td>
<td>James Fisher</td>
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<td>Undergraduate medical students as both learners and curriculum developers: evaluation of a support framework</td>
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<td>Dominic Alder</td>
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<td>Implementing Quality Improvement At Bristol Medical School</td>
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<td>Rory Houston</td>
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<td>3.20-3.40pm</td>
<td>The Katherine Twinning Research Network: Time to collaborate</td>
<td>Level 2, Rm 10</td>
<td>Elaine Leung</td>
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<td>Using qualitative research and patient safety to review revise and reinvent the regional Foundation Doctor Induction training programme: an exploration of lessons learnt</td>
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<td>Sonia Joseph</td>
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<td>An education in public speaking should be given to every doctor</td>
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<td>Tom Hansen</td>
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<td>3.20-3.40pm</td>
<td>Foundation Survival Skills: Using in-hours time to bridge the gap in F1 out of hours experience – A follow up</td>
<td>Level 2, Rm 11</td>
<td>Jonathan Hacon</td>
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<td>Investigation of the use of Multi Source Feedback (MSF) as a work based assessment tool in one deanship</td>
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<td>Jeremy Brown</td>
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<td>Dare to Doctor: Lessons learnt from an Access to Medicine Summer School</td>
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<td>Damian Williams</td>
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| 3.20-3.40pm| Validating the assessment of otolaryngology trainees using Clinical Evaluation Exercise  
Zaid Awad |
| 3.40-4.00pm| Does Direct Observation of Procedural Skills reflect trainee’s progress in Otolaryngology?  
Zaid Awad |
| 4.00-4.20pm| What group size constitutes a small group for teaching clinical communication?  
Muhammad Imran Omar |
| 3.20-3.40pm| Factors which influence the career choices of medical students  
Adrian Hastings |
| 4.00-4.20pm| Psychosocial Paediatric Training in Iraq: Perspectives of Trainers and Students  
Abdulkareem Al-Obaidi |
| 3.20-3.40pm| Investigating the acceptability of Multiple-Mini Interviews (MMIs) at Dundee  
Mark J Rodgerson |
| 4.00-4.20pm| The Performance of MMIs in the UK context: 4 Years of Experience in Dundee  
Adrian Husband |
| 3.40-4.00pm| Recruitment and retention into obstetrics and gynaecology: what are the influencing factors and how have they changed?  
Jane Curti |
### Thursday 11th July 2013, 2.40pm - 4.00pm

#### Theme & Room

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>2.40-3.00pm</td>
<td>Are the birds still tweeting? Or is there a better way of delivering medical education by social media?</td>
<td>Level 2, Rm 3</td>
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<tr>
<td>3.00-3.20pm</td>
<td>Virtual Interactive Teaching and Learning For Doctors (VITAL)</td>
<td>Rebeca Igboke</td>
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<tr>
<td>3.20-3.40pm</td>
<td>Using Twitter to teach Public Health to undergraduate medical students - #fluscenario</td>
<td>Eleanor Hollingsday</td>
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<tr>
<td>3.40-4.00pm</td>
<td>Use of smartphones amongst final year medical students on clinical attachments: practice, perceptions and impact</td>
<td>Debbie Allday</td>
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<tr>
<td>2.40-3.00pm</td>
<td>Medical Student Use of Intended Learning Outcomes to Support Student Learning</td>
<td>Level 2, Rm 4</td>
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<tr>
<td>3.00-3.20pm</td>
<td>Impact of Extended Student Assistantships (ESA) at Great Western Hospital, Swindon</td>
<td>Amy Hawkins</td>
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<tr>
<td>3.20-3.40pm</td>
<td>An acute medicine ‘stream’ in final year medical student teaching</td>
<td>Amy Hawkins</td>
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<tr>
<td>3.40-4.00pm</td>
<td>How should virtual patients be designed for medical undergraduates? A multi-centre, randomised factorial study</td>
<td>James Balman</td>
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<tr>
<td>2.40-3.00pm</td>
<td>Interactive Medical Educational Tutorial (IMET) – An innovative teaching method proves its popularity and effectiveness</td>
<td>Level 2, Rm 5</td>
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<tr>
<td>3.00-3.20pm</td>
<td>Promoting integration and transfer of concepts in Problem Based Learning (PBL): the evolution of an Eight Step PBL process</td>
<td>Hilary Neve</td>
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<tr>
<td>3.20-3.40pm</td>
<td>ELEPHANT criteria: Do they make teaching more worthwhile, as well as more fun?</td>
<td>Michelle Keane</td>
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<td>3.40-4.00pm</td>
<td>Does a student resource improve knowledge about caesarean</td>
<td>Cressida Bond</td>
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<tr>
<td>2.40-3.00pm</td>
<td>Exploring undergraduate anxieties about teaching before and after a one week compulsory teaching course</td>
<td>Level 2, Rm 7</td>
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<tr>
<td>3.00-3.20pm</td>
<td>A qualitative exploration of the approaches to learning employed by medical students for knowledge based assessments</td>
<td>Charanikumal Singh Thandi</td>
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<tr>
<td>3.20-3.40pm</td>
<td>An Exploration of the Student Experience of Early Patient Contact: Comparing Primary Care and Hospital settings</td>
<td>Eleanor Mary Clark</td>
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<tr>
<td>3.40-4.00pm</td>
<td>The limitations, difficulties and barriers faced by medical students in choosing and attaining a specialty training post</td>
<td>Joycple Muthichlegol</td>
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<tr>
<td>2.40-3.00pm</td>
<td>Assessment of the effectiveness of undergraduate pain education at the University of Southampton’s Faculty of Medicine in preparing students for clinical placements</td>
<td>Level 2, Rm 8</td>
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<td>3.00-3.20pm</td>
<td>Simulated Prescribing: Now they are doctors</td>
<td>Victoria Taylor</td>
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<tr>
<td>3.20-3.40pm</td>
<td>Peer Assisted Learning in undergraduate paediatric training</td>
<td>Alice Thomas / John Ho</td>
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<tr>
<td>3.40-4.00pm</td>
<td>Students’ perceptions of the purpose and use of an electronic portfolio</td>
<td>Sindhu Naidu and Rosie Bleicher</td>
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<tr>
<td>2.40-3.00pm</td>
<td>ARCP debrief as an intervention to improve quality of Foundation Programme e-portfolio evidence for future ARCP assessment</td>
<td>Level 2, Rm 9</td>
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<tr>
<td>3.00-3.20pm</td>
<td>Socialisation and enculturation – how we educate for transitions in medicine</td>
<td>Wendy A. Watson</td>
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<td>3.20-3.40pm</td>
<td>Intimate Examination Training in Women’s Health: A Meta-Analysis</td>
<td>Aaron Braddy</td>
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<td>3.40-4.00pm</td>
<td>A study investigating differences in delivery and structure of Academic Foundation Programmes in Medical Education across the UK</td>
<td>Sophie Roberts</td>
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<tr>
<td>2.40-3.00pm</td>
<td>A unique evaluation approach to examine and enhance effectiveness of a Leadership and Management Training Programme (LaMP) for Medical Specialty Trainees in NHS Scotland</td>
<td>Level 2, Rm 10</td>
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<td>3.00-3.20pm</td>
<td>Developing and Using the Edinburgh Feedback Inventory</td>
<td>David Hope</td>
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<td>3.20-3.40pm</td>
<td>Student led “mock” clinical assessment successfully prepares medical students for their first OSCE</td>
<td>Matthew Livesey</td>
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<td>3.40-4.00pm</td>
<td>The level playing field: the impact of assessment practice on professional development</td>
<td>Gerry Gerrity</td>
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<td>2.40-3.00pm</td>
<td>IMED</td>
<td>Priorities for Medical Education Research Across Scotland</td>
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<td>European consensus on the Bachelor of Medicine: report of the MEDINE2 Bologna First Cycle study</td>
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<td>Can electives be more responsible?</td>
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<td>2.40-3.00pm</td>
<td>A&amp;H</td>
<td>The integration of a skills log, e-portfolio and mentoring in building medical student professionalism</td>
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<td>Film Club: Using Hollywood in Education</td>
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<td>Literature and Doctoring: Medical Humanities Using a Seminar Format</td>
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<td>2.40-3.00pm</td>
<td>NTS</td>
<td>Utilising Computer Games to Train Future Doctors: Pilot Study On A Multiuser Interactive Online Resuscitation Simulation Game – Will it give us safer doctors?</td>
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<td>NTSS</td>
<td>Social Engineering in a Technological Environment</td>
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<td>2.40-3.00pm</td>
<td>SJE</td>
<td>Connectin students in Somaliland and the UK: Two years’ Peer-to-Peer Psychiatry e-learning</td>
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<td>In undergraduate medical education, does Problem Based Learning cause students to experience increased levels of stress, in comparison to a traditional lecture-based course?</td>
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<td>2.40-3.00pm</td>
<td>MEE</td>
<td>To what extent and in what ways is the family medicine consultation similar to or different from British general practice, in English language consultations in Bangalore, India?</td>
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<td>Critical reflection: lessons learned from a communication skills OSCE</td>
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<td>Share the load: Shared decision making and the student curriculum – a pilot study</td>
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<td>ERG</td>
<td>Characterising medical students’ learning during immersive simulations</td>
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<td>Developing workplace-based learning initiatives to improve foundation doctor’s antimicrobial prescribing: a narrative interview study</td>
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**Awards**

- Sir John Ellis Student Prize 2012 Winner: Sir John Ellis Student Prize 2013 Runner Up
- Sir John Ellis Student Prize 2013 Winner: International Travelling Fellowship 2012
- Sir John Ellis Student Prize 2013 Runner Up: International Travelling Fellowship 2013
- International Medical Education Travelling Fellowship 2012: The Clinical Teacher Travelling Fellowship 2012
- The Clinical Teacher Travelling Fellowship 2012: Henry Walton Journal Prize
- International Travelling Fellowship 2012: New Researcher Award 2013 Runner Up
- International Travelling Fellowship 2013: Psychiatry teaching in the Foundation Programme
- Sir John Ellis Student Prize 2012 Winner: An exploration of students’ experiences of professionalism and identity negotiation, on both sides of the pond
- Sir John Ellis Student Prize 2013 Runner Up: Developing leadership and management skills in Medical Education – lessons from an ASME Travel Fellowship
- International Travelling Fellowship 2012: Developing leadership and management skills in Medical Education – lessons from an ASME Travel Fellowship
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<tr>
<td><strong>How Can Smartphone Technology Aid Undergraduate Medical Student Education?</strong></td>
<td>Prepare for the PSA: An e-Learning Tutorial for Final-Year Medical Students</td>
<td>Mobile technology supporting transition: benefits and challenges in using ‘just in time’ information resources in the workplace</td>
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<td>Michael Harrison</td>
<td>Finneas Catling</td>
<td>Rebecca Dimond</td>
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<td><strong>Evaluation of Teaching Medical Students How to Take Blood Cultures</strong></td>
<td>The role and importance of self-regulation of emotion in medical students</td>
<td>At Sea with Disability! A typology of transformational learning engendered in medical undergraduates working and living alongside disabled persons in a bounded maritime environment</td>
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<td>Georgia Woodfield</td>
<td>Demian Whiting</td>
<td>Trevor Thompson &amp; Catherine Lamont-Robinson</td>
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<td><strong>Self-regulated Learning in Physical Examination Skills Development in the Later Years of an Undergraduate Medical Course</strong></td>
<td>Acute care simulation training for undergraduates – is it undervalued?</td>
<td>Exploring Preparation for Practice through Bourdieu’s Theory of Practice</td>
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<td>Paul Docherty</td>
<td>Georgina Torlot</td>
<td>Sarbjit Singh</td>
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<tr>
<td><strong>Does teaching hand hygiene through participation in audit improve students’ competence and compliance in hand washing in the workplace?</strong></td>
<td>What influences how accurately students self-evaluate their performance in an OSCE scenario?</td>
<td>A video reflexivity study of feedback in a clinical skills environment</td>
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<td>Joyce Muhschlegel</td>
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<td>Lynn Urquhart</td>
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<td><strong>Heterogeneity of medical student experiences during clinical</strong></td>
<td>Promoting the use of evidence-based resources to undergraduate medical students</td>
<td>How do medical students become teachers?</td>
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<td>Michael Brown</td>
<td>Elliot Reed</td>
<td>Anupa Shah</td>
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<td><strong>The Second Generation and their Degrees of Difference</strong></td>
<td>Investigating clinicians’ perceptions of the severity of medical error</td>
<td>Illuminating education issues linked to clinical protocol training using High-Fidelity Patient Simulation</td>
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<td>Lesley Pugsley</td>
<td>Maree Arsaniou</td>
<td>Majid Anwar</td>
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ASME Awards
Connecting students in Somaliland and the UK: Two years’ Peer-to-Peer Psychiatry e-learning

R Keynejad

R Keynejad, Graduate/Professional Entry Programme (GPEP) MBBS, King’s College London

Introduction

Somaliland is a self-declared independent state in northern Somalia. There are only two public inpatient psychiatric units in the country and no psychiatrists working in the public sector. King’s Tropical Health and Education Trust Somaliland Partnership (KTSP) works to strengthen the healthcare system and improve access to care through partnership between Somaliland and King’s College Hospital, UK.

The proportion of UK medical students applying for speciality training in psychiatry continues to decline. KCL Psychiatry Society seeks to remedy student apathy towards psychiatry by delivering a programme of free events. MedicineAfrica is a telemedicine portal based on a social network structure which facilitates online case-based tutorials in real time. Peer teaching has well-documented benefits, including increased knowledge, clinical and communication skills, time management, confidence and taking responsibility.

Online peer-to-peer study offers students a more diverse education and increases access to education resources worldwide. A recent literature review found that new medical education technologies for psychiatry teaching are not well-studied and require partnership approaches to integrate them into curricula. E-learning methods are increasingly popular but remain under-investigated.

There is growing emphasis on global health in medical education, exemplified by Tomorrow’s Doctors. Given recessionary budget cuts and the recruitment crisis in psychiatry, innovative, cost-effective technologies that stimulate medical student interest in international mental health are increasingly important to educators and clinicians worldwide.

This essay describes the two year development of a project sharing knowledge and experiences between medical students in Somaliland and the UK, for psychiatry education and cross-cultural exchange. There are no documented reports of psychiatry education of this kind. The utility and feasibility of online instant messenger peer-to-peer exchange for education in psychiatry between cultures is assessed and logistical challenges outlined.

Method

After a successful pilot in 2009-10, twenty-four medical students at King’s College London were paired with twenty-four students at Hargeisa and Amoud University Medical Schools, Somaliland, through a partnership between KCL Psychiatry Society and KTSP. This was coordinated by one student mental health representative in Hargeisa and one KCL Psychiatry Society committee member in London. All students volunteered to participate in response to email communications and lecture announcements advertising the partnership. It was named Aqoon, meaning knowledge in Somali.

Students met for one hour, every two weeks, using an online instant messenger service on the website, MedicineAfrica. Each pair aimed to meet ten times, to discuss pre-decided psychiatric topics. Students received suggested themes for discussion including cultural perspectives and stigma, affective disorders, substance misuse and psychosis.
Participants completed an initial, final and post-meeting questionnaires using the website, SurveyMonkey. Consent to completion of anonymised questionnaires for use in evaluation and research was an explicit feature of the Terms of Reference to which all students signed up before beginning, with ethical approval from King’s College London Ethics Committee.

**Results**
Participants completed 98 questionnaires after meetings, with mean duration one hour and twenty-three minutes. Students rated the partnership positively, with average ratings of session enjoyment 4.23 out of a possible 5, academic helpfulness 3.48 out of 5 and interest 4.14 out of 5.

32 students completed the final survey after completing Aqoon. They gained psychiatry knowledge (63%), understanding of cross-cultural psychiatry (41%) and treatment (19%), friendship (34%), insight into a different culture and resource environment (25%) and different beliefs about mental illness (19%). The commonest reason for not completing the programme was finding mutually suitable times problematic (69%). Unpredictable internet connection and computer access affected some (44%), while some participants from both sides failed to respond to emails (25%).

Participants suggested improvements including ensuring that recruited students made realistic commitment to Aqoon (31%). Some needed to better respect meeting times and punctuality (16%), while others requested specific matching of psychiatry education levels between pairs (16%). Aqoon proved popular, with 16% independently requesting Aqoon for other Medicine topics.

**Discussion**
This essay describes the two year implementation and outcomes of a project pairing medical students in Somaliland and the UK, for psychiatry education and cross-cultural exchange. Evaluation revealed consistent ratings of high enjoyment and interest and moderate ratings of academic helpfulness and high retrospective ratings of psychiatry learning. The proportion of students who would consider a career in psychiatry increased from 64 to 84%.

Even students not completing Aqoon rated it highly and would recommend it to a friend. This cost-effective intervention, solely employing existing resources, revealed genuine scope for wider use in medical education that is mutually, cross-culturally beneficial. Such innovations can address challenges to university teaching, such as the need to raise the profile of global and mental health, despite budget cuts.

This partnership stimulated interest in psychiatry by encouraging participants to consider mental illness outside the standard medical education environment, making use of a unique e-learning format. Aqoon expands the scope of the Tropical Health Education Trust’s KTSP health link beyond qualified clinicians, to the medical professionals of the future.

**STATEMENT OF ASSISTANCE AND SUPERVISION**
The work described in this essay was performed through the King’s THET (Tropical Health Education Trust) Somaliland Partnership and KCL Psychiatry Society, of which I was president in 2009-10. I founded the Aqoon pilot and subsequent partnership and coordinated its implementation at KCL and evaluation for two years. I could not have done this without the work of my fellow mental health representatives at Hargeisa University Medical School, Jibril Handuleh (2009-10) and Gudon Adem (2010-11), both now doctors. We were supervised in these roles by consultant psychiatrist and KTSP lead, Dr Susie Whitwell of the Maudsley Hospital. Support from Medicine Africa came from Dr Alexander Finlayson and Dr Simon Little. Some of the Introduction was assisted by Dr Faisal Ali. The writing, analysis and work of this essay is my own.
In undergraduate medical education, does Problem Based Learning cause students to experience increased levels of stress, in comparison to a traditional lecture-based course?

S Winfield

S Winfield, University of Liverpool

Background
Increasing numbers of UK medical schools are adopting Problem Based Learning curricula in favour of traditional lectures. The aim of this study was to systematically review the effects of both learning strategies, on the undergraduate experience of stress.

Method
SCOPUS and OVIDSP (MEDLINE) databases were searched to obtain relevant articles for critical appraisal. Keywords entered included those relating to types of educational delivery and those relating to ‘stress’. Additional inclusion/exclusion criteria were utilised to further refine the search.

Results
Five studies\(^1\)\(^,\)\(^2\)\(^,\)\(^3\)\(^,\)\(^4\)\(^,\)\(^5\) were retrieved that met the inclusion criteria. A list of ‘quality assessment criteria’ was used to choose two studies for in-depth analysis. Students studying through Problem Based Learning experienced increased levels of uncertainty regarding the expectations of the faculty and the adequacy of the course. ‘Non-PBL’ students experienced heightened feelings of isolation and anonymity when compared with students from the PBL medical school.

Conclusion
Stressors in undergraduate medical education are similar for both PBL and ‘non-PBL’ courses but are experienced to differing degrees by students. Medical schools must ensure they know, and respond to, the views of students, to minimise the impact of stressors and help students to cope effectively.

References
Developing leadership and management skills in Medical Education – lessons from an ASME Travel Fellowship

S Yardley

S Yardley, Primary Care and Health Sciences, Keele University, Staffordshire, ST55BG

Background
Each year ASME invites members to apply for international travel fellowships. In this paper I discuss the value of these fellowships, using the example of my 2012 leadership and management internship in the Department of Educational Development and Research, School of Health Professions, Maastricht University. Key elements contributing to success will be identified alongside resultant outputs and impact.

Fellowship objectives
To develop an international perspective on successful strategies, structures and functions for medical education research groups; debate opportunities for innovation in medical education research including balancing strategic / themed research programmes with new ideas and responsive working to changing external contexts; further understanding of key skills needed for research leadership and successful research collaborations, and; expand ideas for career development.

Results
The fellowship resulted in several outputs: (1) development of a Masters level workshop in qualitative research methods; (2) co-presenting a research seminar; (3) acceptance of a collaborative conference symposium; (4) developing a local education research group with an agreed vision, strategy, research themes, aims and action plan in my own University, and; (5) expanding my network of ‘critical friends’. Positive impacts occurred with respect to my personal development of management and leadership skills, research activities, local organisational development and ideas for further debate and discussion in the wider medical education community.

Discussion and conclusions
In addition to the financial support received from ASME it was essential to have support from my research institution and clinical employer to ensure my personal development learning could be effectively embedded on return from the fellowship. Other key elements included the provision of named academic and administrative support prior to and inclusion in research group activities and during my time in Maastricht. It may seem that the fellowship raised as many questions as it answered. This is, however, a positive outcome. To draw a simple analogy with the Green Cross Code: there is little point learning to stop, look and listen before you cross the road unless you know which roads you want to cross, how and why. Travel fellowships can provide educators with a mixture of concrete outputs and developmental thinking (stopping, looking and listening) to further pursue my interests and continue my work (which roads to cross, how and why) in the field of Medical Education. I am grateful to ASME for such provision.
Background and Purpose
This project was part of the ASME international travel fellowship 2013. This study aims to compare and contrast medical students’ perceptions of professionalism and professional identity formation within two different healthcare settings, the UK (NHS) and the USA (private) through collaboration with the Mayo Medical School. Medical students’ perceptions of professionalism and how students grapple with their personal and professional identities have previously been explored within the UK context. This identity negotiation causes students to resent the scrutiny to which they are subjected to, especially with regard to their professionalism. It is common for many people to face increasingly contradictory demands on their personal lives as a result of their differing contexts, personal and professional identities.

Methodology
This is a qualitative research project undertaken at the Mayo Medical School and Clinic. Focus groups were conducted at the Mayo Medical School (USA) and Durham University (UK) in order to explore the following with medical students and residents/ foundation doctors:

- What are their perceptions of professionalism and its relevance to them?
- How do they negotiate their professional and personal identities?
- What factors contribute to their professional identity formation?
- How does the healthcare system in which they work influence their professionalism?
- Do they feel that they are influenced by societal and cultural expectations of the medical profession?

Data were analysed using grounded theory.

Results
Results from the focus groups will be presented. Experiences of and lessons learnt from the international travel fellowship will be described.

Discussion and Conclusions
Understanding how societal contracts and education contexts impact upon medical students and their professional identity formation is crucial for curriculum development. With institutions, patients and society expecting such high standards of professionalism, students often feel that they are sacrificing their personal identities. They report constantly ‘being watched’ and this perception is frequently coupled with resentment of such an intrusion. A balance needs to be struck between demands from society and the personal and professional lives of medical students and practicing clinicians. Lessons can be learnt from both the UK and the USA.

References
Medical students with dyslexia and prescribing: exploring constructs and challenges

D Shrewsbury, J Coleman

D Shrewsbury, c/o Medical Education Unit, College of Medical and Dental Sciences, University of Birmingham, Edgbaston, Birmingham, B15 2TT

Background
Dyslexia is the most common Specific Learning Difficulty (SpLD) and is thought to affect an estimated 10% of the global population¹. Since 2004 there has been an increase in the number of students with SpLD admitted to medical degree programmes². It is possible to see, from its definition¹, that dyslexia would likely impact on an individual’s ability to perform many of the tasks required of a practicing doctor, including prescription writing. Public perception surrounding the issues of disabled medical students is generally positive. However, specific concerns have been raised about the ability of doctors with dyslexia to safely prescribe medicines³. In order to balance compliance with legal requirements to support access to medical education and careers, with patient safety and public trust in the profession, we need to better understand the impact of disabilities on the ability to perform specific tasks.

This presentation reports on the early findings of a mixed-methods project, supported by an ASME small grant, designed to explore the impact that having dyslexia has on medical students’ ability to learn and practice safe prescribing.

Methods
One arm of the project draws on personal construct psychology (PCP)⁴,⁵ to explore the ways that medical students with dyslexia construe prescribing difficulties attributed to dyslexia. Semi-structured interviews have been carried out with 8 dyslexic medical students from one institution, and will be complemented by further interviews conducted with students at collaborating institutions. These will undergo the structured repertory grid analysis central to the concept of PCP and will be complemented by thematic analysis of the interviews, using an approach sympathetic to grounded theory⁶, to draw out an understanding on how learners perceive their dyslexia to impact on their learning and practice of safe prescribing. A quantitative arm of the study will draw on data from pilots of the national Prescribing Skills Assessment (PSA) to evaluate the performance of medical students with dyslexia and in receipt of extra time, compared to those without.

Results
The preliminary data from the initial 8 interviews, with complementary data yielded from the analysis of pilots of the PSA, will be ready for presentation at the July ASM.

References
Teaching clinical communication skills (CCS) in a non-western context: Developing a conceptual understanding of the teaching of a core component of the Newcastle CCS curricula in Malaysia

H Alberti

H Alberti, Senior Medical Tutor, School of Medical Sciences Education Development, Newcastle University, Newcastle upon Tyne, UK

Background and Purpose
Newcastle University (NU) medical school recently opened an international campus in Johor, Malaysia (NuMed) to provide a programme of study identical to Newcastle’s UK-based provision. The transfer of western medical school curricula is a relatively new contemporary phenomenon, although not uncommon during the colonial era. This is one component of the globalising agenda of medical education with proponents calling for international standardisation of CCS teaching. Others, however, have questioned whether this is possible without reverting to colonialism, homogenization and cultural dominance. In addition, the conceptual frameworks for CCS teaching are based on research in English-speaking countries: There is an on-going debate about whether identical principles and methods can be applied to contexts with different languages and cultures. Thus, there has been a call for cross-cultural research on CCS teaching as few studies have been published outside western contexts. This was a unique opportunity to study the teaching of western CCS curricula in an international context in its earliest phase.

Methodology
The study was a qualitative, explorative study from a post-positivist epistemological stance drawing form the tradition of critical ethnography. The phenomena under study were the cultural factors involved in teaching CCS, which were identified from the perspectives of a participant observer (researcher), teachers and students. The researcher visited NuMed in November 2012 to observe the teaching of a core component of the CCS module (lecture and small groups) to 1st year medical students, interview the teachers involved and undertake focus groups of students after their CCS teaching. Thematic analysis was undertaken following Spradley's ethnographic technique.

Results
Results from the thematic analysis of the participation observation, interviews and focus groups will be presented within the conceptual framework of intercultural communication theory (Ting-Toomey’s cognitive, behaviour and emotional constraints).

Discussions and Conclusions
A conceptual understanding of the teaching of a core component of the Newcastle CCS curricula in Malaysia will be invaluable in order to assist Newcastle University in developing the CCS teaching at NuMED. In addition, it will potentially inform other interested medical educators as the rise in transfer of medical education continues unabated.

References
A study to develop an empathy-specific entry test for applicants to medical schools

M Platt, G Pounds, C Salter, P Bryant

M Platt, Senior Lecturer, Norwich Medical School, University of East Anglia, Norwich

Background and Purpose
The ability to empathise with patients is seen as an important professional skill for doctors. Although evidence shows that empathic skills can to some extent be taught, it is clear from the experience of Norwich Medical School (NMS) that medical students who have difficulties with the expression of empathy struggle to qualify as doctors, and may be, more likely to be the subject of complaints to the General Medical Council after qualification. Currently, the only validated tool to assess empathy in a medical context relies on self-assessment, and is not suitable for use with entrants to the career. The purpose of this ASME-funded project is to develop and validate a tool to assess the empathic performance of applicants to medical schools within a Multiple Mini Interview (MMI) station.

Methods
Drawing on an established classification of emotive and evaluative expression (Martin and White, 2005) ¹ and a related empathy-specific linguistic framework (Pounds, 2011) ², the research team developed and trialled a written and oral version of the test. In both tests, non-medical student volunteers were required to select or produce suitable responses to a friend who is telling them about a recent loss (trained role-players were used for the oral version). The findings from the written test were used to inform the oral test. Both tests were revised in relation to the findings emerging from the scoring. A scoring proforma, based on the oral version and suitable for use by an assessor within the medical mini interview setting at NMS, was also developed and tested.

Results
Responses from the written tests taken by 58 volunteers were analysed. Scores ranged from 7-29, suggesting that the written version of the test is able to differentiate between levels of empathic expression. This work is now being taken forward using role playing, (analysis pending). The findings from these two aspects will inform the implementation of the empathy test within the selection process.

Discussion and Conclusions
Based on the findings from this project a revised empathy assessment ‘station’ will replace the current station within the MMI in the admissions selection process at NMS. Future work is planned to link students’ empathy performance at interview with subsequent scores in specific communication skills assessments. Once piloted at NMS other medical schools could successfully adopt the test.

References
Team America: Report from the *Medical Education* Travelling Fellowship

R Isba, K Woolf

R Isba, Clinical Lecturer in Medical Education, Lancaster Medical School, Furness Building, Lancaster University, Lancaster, LA1 4YG

**Background and Purpose**

In July 2012 we were awarded a travelling fellowship from *Medical Education*. This award has allowed us to plan a visit to North America in April 2013 to visit colleagues at the University of California (UC) Riverside, UC San Francisco, Stanford, and the University of British Columbia. We both conduct medical education research and are both lecturers on the undergraduate medical course at our parent institutions. We share a number of common medical education interests, including the use of social network analysis in research. During our travelling fellowship we will meet with colleagues who are world experts in their fields and develop plans for collaborative future ventures.

**Methods**

The first part of our fellowship will be spent at the University of California at Riverside, with Professor Bob Hanneman. Bob was one of the pioneers of the use of social network analysis and is a world expert on mathematical modelling. During our time with him he has arranged a two-week module in social network analysis for his postgraduate students which we will be heavily involved with – teaching and learning as part of the course. The second part of the fellowship will be in the greater San Francisco area – visiting Professor Geoff Cohen at Stanford and also Professor Maxine Papadakis at UCSF. Professor Cohen is a world leader in psychological interventions to reduce the ethnic attainment gap. Professor Papadakis is Associate Dean for Student Affairs and a world leader in research into predicting poor professional performance in doctors. The final part of the fellowship will involve travelling to Vancouver to spend time with Dr Kevin Eva and his colleagues at the Centre for Health Education Scholarship.

**Results**

It is intended that this fellowship will help us develop our social network analysis skills, but also to broaden our own networks and hopefully develop one or more new research collaborations. As well as strengthening the work that we are planning together, we also have a number of new research ideas that we hope to develop with expert input whilst we are away. These new research ideas will, ultimately, result in one or more articles for submission to peer-reviewed journals and abstracts for conferences in 2014.
To what extent and in what ways is the family medicine consultation similar to or different from British general practice, in English language consultations in Bangalore, India?

K Mohanna

K Mohanna, Director of Postgraduate Studies, Keele University School of Medicine, Clinical Education Centre, University Hospital of North Staffordshire NHS Trust

Background and Purpose
There is a differential pass rate for International Medical Graduates (IMGs) in the Clinical Skills Assessment (CSA) of the membership exam of the Royal College of General Practitioners. This difference was described by a sample of doctors in an earlier research project, as being in part due to ‘It’s not like this back home’ - that patients in their home countries had different expectations of what a good doctor does and how a good doctor is. The purpose of this project was to start to gain a better understanding of any differences, so that we can also better understand the difficulties and issues IMGs face when they come to the UK for specialist training in general practice.

Methodology
English language consultations in a family medicine clinic in Bangalore, India, were video taped and analysed using conversation analysis.

Discussion
’Society only has form, and that form only has effects on people, in so far as structure is produced and reproduced in what people do’ 1

The practice of medicine might be one of the areas of social life which can be best understood through a combination of ‘big picture’ analysis of social structures and organisation, alongside seeking to understand how individuals make meaning and identity through their circumstances and endeavours. Giddens developed a theory of ‘structuration,’ to combine both perspectives and this can usefully be used to think about how we understand, and thus educate for, the role of the doctor in society. We might consider there to be an implicit societal agreement of what a good doctor is and this will be both formed from and perpetuated by how doctors understand their professional role and also inform and perpetuate that understanding.

Some IMGs in the training grades in the UK, express this as a barrier to success for them in the licensing exam for British General Practice. They need to understand and be able to model what is required by examiners; and indeed for some this requires them to adopt a new professional identity; or what Roberts calls ‘perform the institutional self’. 2

Candidates are being assessed as they ‘perform’ a role which may be at odds with their personal and professional identity. The resulting dissonance is likely to be perceptible to examiners (and is likely to be interpreted in a variety of ways). Learners risk being caught in an educational diaspora as they move from one model to another.

References
Critical reflection: lessons learned from a communication skills OSCE
YS Jarris, P Weissinger, P Saunders, M Gatti

YS Jarris, Associate Professor, Director of Medical Student Education, Department of Family Medicine, Georgetown University School of Medicine, Washington, DC 20007

Background and Purpose
Critical reflection, a skill necessary for life-long learning, requires self-assessment informed by external feedback to develop a plan for improvement. Medical schools face the ongoing problem of providing students with meaningful feedback following each OSCE experience to help them improve their communication skills over time. We proposed that a structured reflection process would stimulate students to identify their strengths and weaknesses, recognize feedback inconsistent with their self-perceptions, and make a plan for improving their skills.

Methodology
A communication skills OSCE was introduced to the Georgetown University medical student class (control group = 143), and a subset of 47 students viewed a recording of their OSCE encounter, completed a self-assessment and received faculty and standardized patient feedback. The study’s feedback process closely mirrored Sargeant’s Four-Step Model of Formative Feedback. Participants viewed a video recording of their encounter and completed an online self-assessment (Step 1: Assessment of Performance). Next, faculty volunteers concurrently reviewed the recordings and provided specific feedback on four targeted communication skills: starting the interview; gaining the patient’s perspective; demonstrating empathy; and completing the visit.

Within one week, students retrieved the online faculty feedback (Step 2: Provision of Assessment Feedback). Students reflected on their self-assessment and the faculty comments (Step 3: Reflection and Decision Making). Three months later, students completed a post-intervention OSCE that gave them the opportunity to demonstrate improvement (Step 4: Use of feedback for learning and change).

Results
Baseline performance was similar between intervention and control groups in the overall standardized patients mean scores (p = 0.71). Post-intervention scores were similar (p = 0.66). In a post hoc analysis, we found students were more critical of their own performances compared to evaluations provided by SPs or faculty, specifically with regards to starting and ending the interview.

Discussion and Conclusions
We infer that students did not improve for two main reasons. First, students had limited opportunities to practice their skills. More importantly, students received no instruction for critical reflection. Our study incorporated self-assessment and faculty feedback, but did not include an improvement plan based on feedback. Defining and implementing an improvement plan based on feedback is an essential part of the critical reflection process that, as educators, we cannot assume occurs without explicit guidance.
To what extent and in what ways is the family medicine consultation similar to or different from British general practice, in English language consultations in Bangalore, India?

K Mohanna

K Mohanna, Director of Postgraduate Studies, Keele University School of Medicine, Clinical Education Centre, University Hospital of North Staffordshire NHS Trust

Background and Purpose
There is a differential pass rate for International Medical Graduates (IMGs) in the Clinical Skills Assessment (CSA) of the membership exam of the Royal College of General Practitioners. This difference was described by a sample of doctors in an earlier research project, as being in part due to ‘It’s not like this back home’ - that patients in their home countries had different expectations of what a good doctor does and how a good doctor is. The purpose of this project was to start to gain a better understanding of any differences, so that we can also better understand the difficulties and issues IMGs face when they come to the UK for specialist training in general practice.

Methodology
English language consultations in a family medicine clinic in Bangalore, India, were video taped and analysed using conversation analysis.

Discussion
'Society only has form, and that form only has effects on people, in so far as structure is produced and reproduced in what people do' ¹

The practice of medicine might be one of the areas of social life which can be best understood through a combination of ‘big picture’ analysis of social structures and organisation, alongside seeking to understand how individuals make meaning and identity through their circumstances and endeavours. Giddens developed a theory of 'structuration,' to combine both perspectives and this can usefully be used to think about how we understand, and thus educate for, the role of the doctor in society. We might consider there to be an implicit societal agreement of what a good doctor is and this will be both formed from and perpetuated by how doctors understand their professional role and also inform and perpetuate that understanding.

Some IMGs in the training grades in the UK, express this as a barrier to success for them in the licensing exam for British General Practice. They need to understand and be able to model what is required by examiners; and indeed for some this requires them to adopt a new professional identity; or what Roberts calls 'perform the institutional self'. ²

Candidates are being assessed as they ‘perform’ a role which may be at odds with their personal and professional identity. The resulting dissonance is likely to be perceptible to examiners (and is likely to be interpreted in a variety of ways). Learners risk being caught in an educational diaspora as they move from one model to another.

References
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Psychiatry teaching in the Foundation Programme

A Moreton, A Collier

A Moreton, Medical Leadership and Management Fellow, NHS North West, Manchester

Background
Currently only 3.5% of foundation year posts are in psychiatry although there are plans to increase this number to 7.5% in both years of years of the programme as part of the Royal College of Psychiatrists’ five year recruitment strategy. Eighty-four percent foundation trainees will make their choice of future specialty having never worked in psychiatry.

Objective
To determine the amount of formal mental health teaching provided to foundation trainees as part of their protected teaching programmes, who provided the teaching; and examine whether the amount of such teaching correlates to a later career preference for the specialty.

Methods
With the agreement of the Mersey and North Western Foundation Schools’ Directors, data was collected on the cohort starting work in 2010 up to applying to a specialty training programme 16 months later. The amount of psychiatry teaching was contrasted with that for medicine and surgery; and total hours of psychiatry teaching at each hospital was compared to the number entering core psychiatry training (CPT) in August 2012 using Spearman’s R correlation test.

Results
Nineteen hospitals across the North West of England provided teaching programmes for their foundation doctors; fifteen provided information on doctors’ post-foundation specialty choice. Only 2.3% (60 hours 15 minutes) of protected teaching time was dedicated to psychiatry sessions, compared to 44.1% (1155 hours 19 minutes) being spent on medical or surgical topics. Doctors led a higher proportion of medicine or surgery sessions (63%) than those on psychiatry (48%). Eighteen out of 499 doctors in this analysis entered CPT; provision of formal psychiatry teaching was positively associated with entering psychiatry core training (p 0.012; Spearmans’ R statistic 0.628).

Conclusions
Many foundation doctors will choose their specialty having not worked in psychiatry, and for this group the protected teaching programme may be their only experience of the specialty. This time is potentially the only chance that psychiatrists have to change opinions and build interest in the specialty. Psychiatrists need to take a more active role in the provision of high quality teaching for foundation doctors and become the visible role models which are currently lacking in an effort to improve interest and recruitment in psychiatry.

References
Exploring professional learning and risk in transitions – the rhetoric and the reality

L Pope, S Yardley

L Pope, University of Glasgow

Report from a six seminar series attended as part of ASME Research Studentship. Seminar series aimed to better understand transitions and how we can better support processes of professional learning as professionals navigate these transitions.

Methods

3 ‘high stakes’ professional groups were studied (Medicine, Policing and Social Work). Each seminar focused on a particular profession or aspect of transition and included presentations from experts in the chosen field and small group discussions guided by the overarching questions for the seminar series. Participants included professionals, policy makers, regulators and researchers. Narrative analysis was conducted of the seminar series data and key themes were identified. Data included content of expert presentations, focus group discussions and presented policy documents. This presentation will focus on the theme of risk as it relates to transitions in medicine and will use illustrative case examples to enable consideration of the relationship of policy with experiences reported from practice.

Results

Doctors are required to work in settings which are inherently complex and risk-ridden while living in a society that is increasingly risk-averse and regulated. This is reflected in the increased prioritisation of the patient safety agenda and the risk exists not only for the patient but also for the individual clinician, their colleagues and the medical profession itself. The GMC reports that transitions are times of increased risk of error and complaint for doctors(1–3) and our data explores some of the factors identified as attributing to this. Further to this, our case examples illustrate that some patient safety measures can in fact have paradoxical effects on patient safety eg imposition of surgical checklists resulting in indifference or even resistance among staff which can negatively affecting team dynamics.

Our data is considered in the broader context of current literature on risk, how doctors learn to manage risk and the implications of this when considering how best to prepare individuals for transitions during their career. Finally, this data is compared to insight gained from our study of other ‘high stakes’ professions.

Conclusions

• There are certain things which can only be learnt once ‘on the job’ and we consider current understanding of how doctors can best be prepared for the challenges of new roles
• Hospitals need to consider how they better facilitate doctors transitions into and between posts
• The unintended consequences of patient safety initiatives need to be considered, identified and addressed

References


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How can I improve my practice as a University Lecturer in the development and delivery of a distance learning module in a post graduate diploma in clinical education?

L Delgaty

L Delgaty, Lecturer, School of Medical Sciences Education Development, Newcastle University

Background and Purpose

With the uptake of distance learning (DL), which has been marginal for most academics, teaching contexts, traditional power structures and relationships have changed, leaving lecturers potentially disenfranchised (Conole, 2004). Proliferate literature was found addressing DL in medical education, although the practical application for academics was scarce. Unsurprisingly, the most cited article in Medical Teacher in 2010 was: ‘The Failure of e-Learning Research to Inform Educational Practice, and What We Can Do About It’ (Personal communication, Medical Teacher, October 24, ). My experience suggested DL was a disruptive technology to individuals and the organisational culture of higher education which led to the research aim: To critically and systematically examine, and make informed changes to, the design and delivery of a post-graduate distance clinical education module.

Methodology

Based on the literature of organisations and DL, the complex process of developing and then delivering an asynchronous fully online module to medical educators was examined and evaluated. Maintaining an action research methodology, this study underwent two cycles. The first focused on planning of the module, the second on delivery. These cycles informed my own practice, guided further development and resulted in subsequent change. Data collection consisted of documentary analysis of meetings, interviews with staff and students, formal student evaluations and web analytics. Data analysis incorporated both quantitative and qualitative methods to triangulate the research findings and ensure the research aim was addressed.

Results

Within this inquiry, new competencies for academics including leadership and management were exposed. Barriers to staff progress included changes and ambiguity in roles, lack of leadership and unpreparedness for responsibilities, time, and workload. Student barriers included time, fear, relevance of learning, isolation and increased autonomy. Explicit planning, organisational support and working within communities were requisite to create a ‘sustaining’ technology representing an improvement on current practices for both groups.

Discussion and Conclusions

Avoiding traditional workload assumptions that are erroneous and inaccurate (Hovenga and Bricknell, 2006), this study provides new models of organisational roles and clear responsibilities for academics involved in distance learning. Time, workload, and changing expectations of staff and students are addressed whilst uncompromisingly focusing on informing and improving practice. For academics, only through informed practice can we be empowered to plan change, collaborate and avoid distance learning workload models recognised as unsustainable (Schofield et al., 2003).

References

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Anatomy in Medical Education: Perceptions of Undergraduate Medical Students
S Chapman
S Chapman, School of Medicine, University of Leeds

Introduction
Over the past decade, anatomy teaching in undergraduate medical education has undergone considerable change. Despite a long history, the role of cadaveric dissection has been reduced or replaced in many UK medical schools by more innovative approaches such as prosection, plastinated models and multimedia-based learning packages. The driving factors behind these changes have included pressures on limited resources, a shortage of cadaveric donation and reduced teaching time. Authors have written at length to express concern over the ever-decreasing time dedicated to anatomy and changes to the way it is taught. Relatively fewer studies have attempted to quantify the appropriateness of methods and to evaluate the potential consequences of curricula change. The purpose of this study is to evaluate medical student perceptions of various teaching methods and the ability of these to achieve a set of pre-defined learning objectives.

Methods
Questionnaires were distributed to all 2nd year medical students at University of Leeds. The questionnaire took the form of a matrix grid, similar to that employed and validated by Patel and Moxham (2008). Students were asked to score six methods of anatomy teaching (dissection; prosection; lectures; anatomical models; three-dimensional (3D) software packages; living & radiological anatomy) using a 5-point Likert-type scale based on the perceived ability of each method to achieve nine pre-determined learning objectives:

(A) To instil anatomical knowledge
(B) To provide a background for other basic sciences
(C) To provide a background for clinical disciplines
(D) To obtain a 3D appreciation of the body
(E) To appreciate anatomical variations
(F) To relate anatomical structure to the development of pathology
(G) To encourage self-directed learning
(H) To encourage learning from experiences
(I) To appreciate clinical anatomy

Kruskal-Wallis and Mann-Whitney analyses suitable for non-parametric data were used to evaluate differences for each learning objective and for all learning objectives combined.

Results
In total, 170 students completed the survey; a response rate of 71%. Dissection was scored as most appropriate for four out of nine learning objectives (D, E, G, H). Dissection and prosection featured as joint highest for instilling anatomical knowledge (A). Anatomical models and 3D software packages featured individually or jointly as the lowest-scored methods in five out of nine objectives (A, C, F, G, I). For combined learning objectives, dissection was the single highest scored method; prosection and lectures were scored significantly lower and other approaches such as living & radiological anatomy, 3D software packages and anatomical models scored significantly worse.

Discussion
Traditional methods of teaching such as dissection continue to be favoured amongst undergraduate medical students. It is concerning that such methods are being replaced by newer approaches which are relatively “unproven” and the impact of this on future anatomical and surgical competences is unclear. The results of this study add to a small number of reports which have investigated opinions and attitudes of undergraduate anatomy. Historically, it has been difficult to quantitatively assess the effectiveness of teaching methods due to the vast array of variables which must be controlled to permit a fair assessment. Indeed anatomists have written at length to compare cadaveric dissection with new institutional-specific teaching approaches, but these may be susceptible to bias according to a review by Winkelmann (2007). As such, we are left with the lowest level of evidence to guide curricula change and the debate of how best to teach undergraduate anatomy continues.
Arts and Humanities
The integration of a skills log, e-portfolio and mentoring in building medical student professionalism

N Rawlinson, C Cooper, J Williams, N Maskell

N Rawlinson, Director Student Affairs, MBChB Programme, Faculty Medicine and Dentistry, University of Bristol, First Floor South, Senate House, Tyndall Avenue, Bristol BS8 1TH

Background
Learning Clinical skills is a vital part of medical training. The old saying ‘see one, do one, teach one,’ is of a bygone era. It is the ‘hands on’ part of practice. The GMC’s Tomorrow’s Doctors defines 32 core skills1 that are expected of all newly qualified doctors. The GMC also requires undergraduate students to develop life-long learning principles including maintaining a professional portfolio. Maintaining an e-Portfolio is now part of the daily professional life of a doctor2.

Methodology
The undergraduate medical school at the University of Bristol has developed a Consultation and Practical Skills (CAPS) log book to enable practice, and serve as an immediate record of skills learnt in the work-place. Each skill has a minimum number of training episodes to acquire competence. As students do these, they upload them on their e-Portfolio. All students have been enrolled onto the NHS Undergraduate Medical e-Portfolio (UMeP)3,4, an adaptation of the Foundation e-Portfolio that students will use once they graduate. Students are responsible for writing their e-Portfolio, and skill competence is signed off with a designated Academic Mentor. Exam results, academic progress and career planning are also recorded within the e-Portfolio and discussed with their Mentors.

Results
The CAPS log-book, UMeP and the Academic Mentor scheme have been successfully rolled out across all five years of the medical programme. 217 Academic mentors have been enrolled. Only 1 out of 1,250 students has yet to log in. Students’ engagement with their UMeP is evidenced by uploading their photograph5. Feedback to date from staff and students has been largely positive. The UMeP and CAPS log will be demonstrated and illustrated using narratives and reflections of career planning from students, teachers and F1s.

Discussion and Conclusion
This paper describes the implementation of a skills log and e-Portfolio to help students establish their professional identity and enable clinical skills learning. Focused mentoring will guide their academic development and career-decision making. Academic Mentors are embedded and integrated into the current system of student support. We believe this approach provides an authentic opportunity to maintain a professional e-Portfolio and record competencies; tasks they will have to do as a foundation doctor. The accuracy and honesty with which they complete their e-Portfolio and CAPS is also an important part of developing professionalism. This prepares them for professional practice and supports the transition from final year medical student to foundation doctor. Investment in administrative support is vital.

References
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Film Club: Using Hollywood in Education

K Argyle, A G Martin

K Argyle, Clinical Teaching Fellow, North Somerset Academy, University of Bristol, Weston-Super-Mare, Somerset, UK

Background and Purpose
The use of movies in undergraduate medical education has been reported in the literature since the 1970s (Darbyshire and Baker, 2012). Termed ‘Cinemeducation’, it has been shown to aid the development of the humanistic skills are difficult to specifically teach (Klemenc-Ketis and Kersnik, 2011; Lumlertgul et al., 2009). We organized a series of film nights for students on an 18-week residential placement at a district general hospital and then assessed student responses through a qualitative questionnaire.

Methodology
Sixteen third year medical students on their first resident clinical attachment met fortnightly to watch a medically related film in the presence of a clinical teaching fellow. The films were tutor-selected for either their portrayal of a patient’s experiences of a particular illness or the depiction of doctors who come up against professionalism challenges. Films selected included; The Doctor, Trainspotting, Iris, Lorenzo’s Oil, Awakenings, 50/50 and Philadelphia. At the start of each film students were given a handout explaining any relevant medical aspects and giving points on which to reflect whilst watching. A discussion of these points followed the viewing. Popcorn was provided. At the end of their attachment students were asked to complete a questionnaire looking at what they had gained from the experience.

Results
Fifteen of the sixteen students completed the questionnaire. The use of humour, a realistic portrayal of illness and relevance to the student’s learning were given as the most common reasons for liking a film. One quarter of students felt that the social element of the evenings was important in helping to build cohesion in the group through their long residential placement, and a third commented on how it was nice to learn outside of a hospital environment. The same proportion of students mentioned the group discussions as being the most useful aspect, although different specific reasons were given, ranging from “encouraging thinking” and “understanding the social/whole person side of medicine”.

Discussion and conclusions
Medical films were well received and a useful adjunct for teaching. The majority of students felt they had gained something from watching and discussing the situations portrayed. This especially related to developing their own professional reflection, doctor-patient relationships and the social/whole person side to medicine. An unexpected finding was that a regular activity of this type at a residential placement improved student experience through increasing social interaction outside of the formal learning environment.

References
Literature and Doctoring: Medical Humanities Using a Seminar Format

P Larsen

P Larsen, University of Nebraska College of Medicine

Background and Purpose
Literature is a rich source for insight and reflection on the experiences, values and dilemmas of being a doctor and doctoring. Because of the demanding science curriculum, medical students typically have limited exposure to this source of professional and personal development. A curriculum restructuring in the University of Nebraska College of Medicine created a required one month seminar experience designed for focus and reflection on complex clinical issues and professional development as students transition to internship. Senior students are required to take 9 eight hour seminars during this month (five required and 4 selected). A seminar on Literature and Doctoring was created as a selected opportunity for professional development using medical humanities.

Methodology
An eight hour seminar divided over 2 days was developed with the goal of discussing, analyzing and reflecting on poems and short stories that pertain to medicine. To insure this was an interactive experience, the enrollment was limited to a maximum of 10 students. Eight poems, 7 short stories and parts of one novel were selected. These selections where read prior to the seminar. The time in the seminar was spent discussing each work. Focus was on what these works contribute to the understanding of being a doctor and caring for patients. Students were given time to write about how the readings related to themselves personally and their experiences during medical school. Students then discussed their own goals and plans for future literary reading.

Results
The seminar was offered 2 times in 2012 with 9 students in each seminar (out of a class of 125 students). Students evaluated the seminar using a Likert scale (1-strongly disagree to 5-strongly agree). The evaluation questions focused on the value of this seminar to graduating medical students. 4.7 was the average score for the 11 questions. The evaluation also invited the students to make written comments. The value of the seminar was also expressed in the student’s reflective writing exercises. Student comments will be presented.

Discussion and Conclusions
With limited curricular time, the seminar format provides a setting for meaningful discussion, interaction and shared reflection on what literature has to offer on being a doctor. Using literature, students gain perspective and insight into their experiences as they are graduating from medical school. Exposure to literature helps students establish a desire for enjoyment and lifelong learning through the medical humanities.
Assessment
What is the purpose of Work-Based Assessments?

J Youngs, R Wijesuriya, J Patterson, M Roberts

J Youngs, North East Thames Foundation School. 15 Old Coach Rd, Kelsall, Cheshire, CW6 0QL

Context
Before being fully certified, prospective British doctors must pass medical school finals (Finals), obtain a position through the competitive Foundation Programme Application System (FPAS) and finally complete a number of work-based assessments (WBAs). But does performance at work-based assessments correlate with the two earlier measures? And if not, what implications does this have, considering recent revision of WBAs?

Objectives
We assessed the reliability of and explored the correlations between Finals, FPAS scores, and FY1 WBAs to determine if they demonstrated intercorrelation.

Methods
Data included final medical school examination results, FPAS scores, and FY1 WBA scores for 169 medical students who graduated from Barts and The London School of Medicine and Dentistry in 2008 and were allocated to the North East Thames Foundation School. Cronbach’s α reliability of the assessments and Pearson product-moment coefficients between assessments were analysed.

Results
WBAs showed a low correlation with both Finals and FPAS ($r = 0.14$) ($r = 0.14$). The differing work-based assessments showed medium-large correlation between each other. Cronbach’s $α$ was calculated at 0.75 for the WBA based on the average overall scores from each of the WBAs.

Conclusions
That Finals and FPAS demonstrated low correlation with WBAs probably reflects the different nature of these assessments but raises the question; what were they measuring? If WBAs are no longer to be used as a summative assessment what is their purpose? And what has replaced them?
The role of the Internet in teaching communication skills to medical students

MI Omar, S Schofield

MI Omar, Managing Editor, Cochrane Incontinence Group, Academic Urology Unit, Health Sciences Building, University of Aberdeen, Foresterhill, Aberdeen, AB25 2ZD, UK

Introduction

Communication skills play an important role in developing an effective doctor-patient relationship. The General Medical Council requires that all undergraduate medical students should be taught and equipped with this skill. The undergraduate curriculum requirements for communication skills have been described by the UK Council of Communication Skills Teaching in Undergraduate Medical Education (UKCCSTUME) and a consensus reached among the members. Various methods are used for teaching and assessing communication skills, with an increasing number of universities using the Internet. Despite an extensive literature review, tutor-perceived advantages and disadvantages of using the Internet for teaching and assessing this skill are unclear. This project seeks to address this deficit.

Methodology

All 45 members of the UKCCSTUME were invited to take part by letter. A grounded theory approach was taken to seek experts’ views on the role of the Internet in teaching and assessing communication skills in medical students. This was done via telephone interviews conducted by the lead researcher who then transcribed the interviews and analysed the content thematically.

Results

Seventeen participants took part in the project and they all agreed that the Internet plays a major role in teaching and assessing communication skills. However, the majority felt this role to be supplementary to, and not capable of replacing face-to-face teaching. Perceived advantages of using the Internet included: efficiency for providing teaching a large number of students; being accessible at any time; popularity with students; and interactivity in ways not possible with books and printed material. Disadvantages included: not suitable for summative assessment and difficulties with the assessment and teaching of non-verbal communication and body language. Some participants identified websites they recommend to medical students such as “Health talk online”. They felt E-portfolio and other methods of electronic assessment could be developed.

Conclusion and recommendations

The results indicate that the Internet can play a supplementary role in teaching and assessing communication skills. Some tutors were not aware of good websites which they could recommend to medical students. It might be appropriate to provide such tutors with a list of potentially useful websites. Some tutors were not fully aware of what the available computer technology is capable of doing and those tutors should be provided with further training in the use of online resources. When developing an online package on communication skills the principles of web design, theories of education and requirements of medical curriculum should all be considered.

References

Prescribing Skills Assessment (PSA): A national online assessment of prescribing-related skills and knowledge

S Maxwell, JJ Coleman, J Aldridge, L Bollington, J Mucklow

S Maxwell, University of Edinburgh

Background and Purpose
Preparing medical students to prescribe safely and effectively is a major challenge in undergraduate education. Foundation doctors prescribe frequently but around 10% of their prescriptions contain errors\(^1\). The Prescribing Skills Assessment (PSA) is an online assessment blueprinted against the learning outcomes highlighted in Tomorrow’s Doctors\(^2\) and tests prescribing knowledge and skills appropriate to a newly graduated doctor. The PSA is delivered from a central server located in. The pilot comprised 28 question items (total 100 marks), answered in 1 hour, covering prescribing (4), prescription review (4), planning management (2), communication (3), calculation (4), adverse drug reactions, (4), monitoring (4) and data interpretation (3). The aims were (i) to explore the practicalities of delivering an online prescribing assessment from a remote server; (ii) to make a preliminary assessment of the performance of candidates; and (iii) to gather psychometric data to inform the future development of the assessment.

Methodology
Final year students in 8 medical schools were invited to take part in pilots between during spring 2012. None were familiar with the PSA interface but a brief instructional video was produced for those taking part. All candidates were allowed access to the BNF\(^3\) and provided feedback via an online form. An abbreviated Angoff process, involving 9 judges, was used to estimate the pass mark (65%).

Results
1,282 final year medical students took part (range in numbers per school: 44–278). The mean score was 76.4±8.5%, giving a pass rate of 91.4%. Psychometric assessment of the PSA's internal consistency showed that Cronbach’s alpha was 0.67. Student feedback about the quality, relevance and acceptability of the assessment was positive with the main criticism being insufficient time.

Discussion and Conclusions
This pilot PSA showed that (i) it is feasible to run an online assessment in multiple academic centres from a single location; (ii) the PSA delivery system functioned well; (iii) the vast majority of students passed the PSA; (iv) the PSA had an insufficient number of items to be highly reliable across the prescribing related skills tested; and (v) medical students were generally supportive of the PSA concept. The results must be interpreted with caution because of the selected nature of the cohort of students, their unfamiliarity with the system, their indeterminate motivation, and minor technical issues affecting some of the pilot events. Future pilots will be required to demonstrate reliability and the true extent of any variation in performance between students.

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Validating the assessment of otolaryngology trainees using Clinical Evaluation Exercise

Z Awad, L Hayden, P Ziprin, N S Tolley

Z Awad, Department of Otolaryngology, Imperial College, St Mary’s Hospital Campus, Imperial College Healthcare Trust, Level 1, OPC Building, London W2 1NY

Background and purpose
Robust assessment of surgeons and trainees is used worldwide for selection into training and monitoring progress. We aim to validate the Clinical Evaluation Exercise (CEX) for assessing otolaryngology trainees.

Methods
All 27 Otolaryngology trainees at Specialty Training Registrar (STR) level in North London were assessed by their trainers using CEX tabulated by the Intercollegiate Surgical Curriculum Project throughout their training. The assessments started at Core Training level (CT) and was carried out through STR years (Range: 3-7 years). The topics of assessment varied but the format remained the same. The assessment tool is made of 7-8 domains and the trainees were initially given a score out of 6, where U/C: unable to comment, 1-2: below expectations, 3: borderline, 4: meets expectations, 5-6: above expectations and an overall performance (OP) rating out of 6, from February 2008 to October 2010. The rating from October 2010 to August 2012 was done using a different system where NA: not assessed, 1: development required, S: satisfactory and O: Outstanding with an overall performance rate out of 4.

An analysis of ratings was done by standardising the scores using percentage of the overall performance and by calculating a score (cS) based on the individual ratings of each domain. The OP and cS were compared to the trainees’ grade and their level within the grade to investigate difference and progression.

Results
The average number of assessments for each trainee was 25, range 10-57. The cS for individual questions correlated well with the OP rate given by the assessors when the 6-point rating system was used (R²=0.8). The correlation was weaker when the 4-point system was used (R²=0.049). Both OP and cS increased with experience. Trainees in STR grade scored higher than those in CT grade, 75% and 93% versus 67% and 85% respectively (P<0.001). The higher the trainee level within the grade; from CT1 to CT3 and from ST3 to ST7, the higher their assessment scores (P<0.001). Predictably, at individual level, the cS was more reflective of progress than the OP. This is explained by the better details given when looking at all domains within the assessment rather than a final independent single score.

Discussion and Conclusions
The CEX is a valid tool for assessing trainees’ progress and can be applied for periodic assessment and selection into higher training. The wider the score selection, the more likely that it is to show progress. There is probably no need for an overall performance rate as this is better calculated automatically.
Does Direct Observation of Procedural Skills reflect trainee’s progress in Otolaryngology?

Z Awad, L Hayden, P Ziprin, N S Tolley

Z Awad, Department of Otolaryngology, Imperial College, St Mary’s Hospital Campus, Imperial College Healthcare Trust, Level 1, OPC Building, London W2 1NY

**Background and Purpose**
Regular assessment of surgical trainees is important to investigate progress and highlight weaknesses. We aim to assess if Direct Observation of Procedural Skills (DOPS) can reflect trainee’s progress in Otolaryngology at all levels

**Methodology:**
19 trainees in the North London otolaryngology training program were assessed periodically by their trainers using DOPS. The tool is tabulated by the Intercollegiate Surgical Curriculum Project and is used throughout all surgical training. The assessments started from core training (CT) level 1-3 in the generalities of surgery (junior residents) and carried out through higher specialty training (ST) level 3-7.

37 different basic yet common procedures were used and most were purely otolaryngological. Examples include; reduction of fractured nose, removal of foreign bodies, drainage of abscess, flexible and rigid nasendoscopy…etc. The assessment tool is made of 10 domains and the trainee is given a rate D: development required or S: satisfactory, NA: not assessed and an overall performance (OP) out of 4.

Analysis of ratings was done by calculating a score ($cS = (S / (S + D)) \%$) and comparing it to overall performance ($\text{OP}/4\%$). The results were compared across trainees’ grade and level within the grade (CT 1-3 and ST 3-7) using SPSS statistical package 20.

**Results:**
The average number of assessments for each trainee was 18, ranging from 9-53. The cS correlated well with the OP rate ($R^2=0.4$) at CT level but not at ST level ($R^2=0.15$). Trainees in ST grade had higher cS and OP than those in CT, 98.3% and 95.2% versus 79.8% and 80.6% respectively ($P<0.001$) showing construct validity. Both cS and OP increased from CT1 to CT3 but not further on from ST3-ST7. A pairwise comparison and adjusted p values will be presented.

**Discussion and Conclusion:**
Assessment using DOPS is a useful tool and can show progress at junior (CT) level. It can also differentiate between junior and senior trainees making it useful in selecting trainees for higher specialty training. The tool was not able to demonstrate progress at higher (ST) level most likely due to the simplicity of the procedures included which otolaryngology trainees tend to master in early years. Automatically calculated scores should replace overall performance rating and can be more structurally powerful in showing progress and highlighting weaknesses.
The view from the other side: reframing OSCEs through standardised patients’ experience as raters

JL Johnston, G Lundy, M McCullough, GJ Gormley

JL Johnston, Centre for Medical Education, Queen’s University Belfast, Northern Ireland

Introduction
Inclusion of SP ratings, which typically focus on non-technical skills, alongside examiner ratings has been shown to improve psychometric properties of OSCEs.\(^1\) We explored the process of how SPs rate candidates in OSCEs, with the aims of improving understanding of the SP perspective on assessment and investigating why SP involvement impacts psychometrics.

Methods
We used constructivist grounded theory to analyse data from focus groups and individual semi-structured interviews with 35 SPs and 4 examiners. Inductive coding, theoretical sampling and constant comparison continued until theoretical saturation.

Results
SPs made their assessment on a central process of relationship building. Three theoretical categories inform this process: the SP identity, expectations of student performance and the patient experience. SPs share a strongly vocational identity which is both enacted and reinforced through their role as OSCE raters. SPs draw on prior life experience in formulating expectations of doctors, against which they judge student performance as they engage in relationship building. OSCE interactions for SPs were refracted through the lens of patient experience, and in rating students they contested traditional narratives of the patient role, exerting their agency to protect future patients. The SP experience led to a significantly different perspective from other stakeholders within the exam: the SP assessment was holistic, included technical competence and emphasised the value of individuality. SPs juxtaposed their prioritisation of holistic, individual experience against depersonalising effects of student interactions within the OSCE.

Conclusions
SPs value individuality and see themselves as patients’ advocates, working towards a better experience for the patients of tomorrow’s doctors. Inclusion of technical skills in the construct marked by SPs resulted in some overlap with examiners, offering a potential explanation for the influence of SP ratings on psychometrics. Key OSCE participants approach the exam from different perspectives and have different agendas which can result in difficulty finding shared meaning. Future assessments should seek to improve alignment of participants’ agendas, and should search for sophisticated ways of utilising psychometric data while valuing the subjective experience of OSCE participants.

\(^1\) Homer M, Pell G. The impact of the inclusion of simulated patient ratings on the reliability of OSCE assessments under the borderline regression method. Medical Teacher 2009;31(5):420-425
A unique evaluation approach to examine and enhance effectiveness of a Leadership and Management Training Programme (LaMP) for Medical Specialty Trainees in NHS Scotland

L Halley, M McGovern

L Halley, Evaluation Lead & Research Officer, NHS Education for Scotland, 102 Westport, Westport, Edinburgh, EH3 9DN

Background and Purpose
To provide high-quality service to patients, Doctors need to possess leadership and management competences1. NHS Education for Scotland (NES) and the Training Development Support Unit (TDSU) deliver a national Leadership and Management Training Programme (LaMP) which aims to support medical professionals to become effective leaders and managers through the acquisition of generic competencies2,3,4 that map to the Medical Leadership Framework5. New educational research by TDSU is improving upon their existing evaluation framework for examining the effectiveness and impact of LaMP training through developing an integrated approach. This is combining the use of an enhanced version of the Kirkpatrick Model6 (levels 1-3) with a Theory of Change approach7 i.e. Logic Modelling allowing for more explicit articulation of LaMPs' implementation and programme theory. The evaluation aims to assess the level of satisfaction (reaction level 1) amongst clinicians with respect to course content/delivery, the resulting modification in clinicians’ attitudes/perceptions and knowledge/skills (learning level 2), changes in clinicians’ behaviour/practice in clinical settings as a result of attending LaMP training (behaviour level 3) and unintended programme outcomes.

Methodology
The evaluation is employing a mixed methods approach including a range of qualitative and quantitative tools and data sources. A comprehensive self-report pre/post-course questionnaire tests clinicians’ satisfaction with courses and knowledge, attitudes and behaviours related to Leadership and Management (L 1-3). A pre/post-course test of knowledge examines learning acquired of course taught content (L 2). A detailed follow-up training impact survey and semi-structured qualitative interviews explore the impact of the training upon delegates and learning transfer (L 2 & 3). A pre/post programme analysis of medical workplace assessment multi-source feedback data measures changes in clinicians’ leadership and management attitudes/behaviours (L 3). Qualitative data is transcribed and thematically analysed. Access, Excel and SPSS are used to produce descriptive statistics to analyse the quantitative data.

Results
Evaluation is on-going and has captured a number of positive results endorsing the quality and delivery LaMP. A continuous feedback mechanism for course improvement has been implemented within the TDSU. Results from the tests of knowledge will be presented as well as the impact of the programme upon clinicians’ attitudes/behaviour. Self-reported data will be triangulated with workplace assessment data to strengthen findings.

Discussion and Conclusions
Leadership and Management training may have the potential to exert a positive impact upon Doctors. Improving quality of training could strengthen its’ impact and this can be more reliably assessed utilising integrated evaluation approaches that facilitate explicit articulation of programme theory and outcomes.

References
Developing and Using the Edinburgh Feedback Inventory

D Hope, H Cameron

D Hope, Fellow in Medical Education, Centre for Medical Education, University of Edinburgh, Edinburgh, UK

Background and Purpose
Staff-to-student feedback is viewed as an integral part of education but few dedicated inventories exist to test student perspectives on feedback. There is emerging evidence that satisfaction with feedback does not predict future performance\(^1\) and feedback may increase confidence without any associated performance improvement\(^2\). Simple, often one question tests assessing student perspectives on feedback are therefore unlikely to help assess or promote feedback that is both satisfying and induces performance gains. Inventories that can adequately judge perspectives on feedback are needed. The Edinburgh Feedback Inventory (EFI) is an attempt to develop a rigorous, psychometrically valid inventory able to assess perspectives on feedback and measure feedback quality.

Methodology
A 21 item inventory was created following a literature search and discussion among the researchers. Items covered a range of practical and theoretical statements which students endorsed on a 1-5 scale, 1 being ‘very unimportant’ and 5 being ‘very important’. Example items included ‘Having clear departmental standards for feedback is …’ and ‘Being given motivation to improve is …’ and all items were designed to be applicable in a range of educational contexts. The EFI was given to undergraduates from years 1, 3 and 5 of the Edinburgh MBChB: 192 students completed it (response rate = 35%). Responses were linked to student IDs to compare EFI scores with academic performance.

Results
The EFI was strongly unidimensional, and exhibited a Cronbach’s alpha of .91. Candidates who strongly endorsed one item were likely to strongly endorse others, indicating that students tend to rate all aspects of feedback as equally relevant. A composite score of all items was standardized onto the same 1-5 scale: students tended to rate feedback highly (\(M = 4.18\)) but also exhibited variability (\(SD = .60\)) – not all candidates viewed feedback as important. Due to the strongly unidimensional nature of the inventory it was reissued in 2013 and completed by 422 undergraduates (response rate 52%) in a revised, 10-item form designed to take five minutes or less to answer. The inventory was also run alongside a previous set of feedback questions trialled in another medical school\(^3\) to further validate the inventory. Underperforming students were less likely to report on their feedback needs in both cases. Preliminary work has indicated associations between personality/behavioural traits and aspects of academic success in ways that differ from simple scores of feedback satisfaction.

Discussion and Conclusions
Students tend to agree on the key elements of good feedback, but perspectives on the general importance of feedback varies. Feedback inventories such as the EFI may offer a useful alternative to existing feedback monitoring approaches and so help ensure feedback improves performance as well as satisfaction.

References
Candidate marking using tablet computers in an Objective Structured Clinical Exam- An evaluation of acceptability and effectiveness

A Revolta, B Hassan, A Lobban, A Denison

A Revolta, Clinical Teaching Fellow, Division of Medical and Dental Education, School of Medicine and Dentistry, University of Aberdeen, Aberdeen, UK

Background
Objective Structured Clinical Examinations (OSCEs) are frequently marked using a paper-based checklist that is scanned with an optical reader. This can require considerable staffing resource to collate and process the hundreds of mark sheets generated. We reported in 2012 a proof of concept small scale pilot of using a tablet device in place of paper forms in a live OSCE, using a bespoke OSCE application (“app”). We sought to build on our experience and report the use of tablet computers for recording candidates’ performance in an entire undergraduate OSCE.

Methods
A Year 1 formative OSCE was selected. Our application was modified based on evaluation of our previous pilot. Examiners were informed of the change in marking methodology and offered short pre-OSCE training. Further discussion was made during the standard pre-OSCE briefing with device training if needed. The test area included all examiners (n=34) and candidates (n=185). Examiners were invited to submit feedback on the day of the OSCE. Questionnaires were sent to students and administrative staff after the OSCE. Descriptive statistics were obtained and the qualitative comments were analysed using grounded theory.

Results
No technical failures occurred and the marks were available for review immediately after the OSCE. Complete mark sheet data were collected from all candidates. 94% of examiners were satisfied with this method of marking candidates with 91% agreeing that the system was appropriate for summative and senior student OSCEs. Time saved at all stages of the set-up and delivery process and avoidance of incomplete mark sheets were the main benefits for administrative and coordinating staff. The principle challenge for examiners was the limited time available to enter candidate feedback comments. 35% of students responded with 74% agreeing this was an appropriate method of marking their OSCE and 88% agreeing they were happy for this system to be used again. Candidates commented that some examiners were very focused on the system whilst marking.

Discussion and Conclusions
We report a valid, acceptable and reliable way of marking large OSCEs which offers potential benefits to candidates, examiners and the institution as a whole. The system was highly acceptable to staff and students and offers potential to use the readily accessible collated comments for candidate feedback and teaching development. Avoidance of missing marks will improve the validity and reliability of the OSCE process. We plan to develop the application further with a view to using it in a summative OSCE.
Student-led “mock” clinical assessment successfully prepares medical students for their first OSCE

P Chan, BJ Holden, SM Churchill, MJ Livesey, AH Burnett, KM Nepal

P Chan, Academic Unit of Medical Education and Medical Society, University of Sheffield, Beech Hill Road, Sheffield S10 2RX

Background
The first objective structured clinical examination (OSCE) can be a daunting experience. In this university, the Medical Society (MedSoc) have organised a “mock” OSCE for third year students. We surveyed the 2012 MedSoc mock OSCE in order to assess its effectiveness.

Implementation
The student-led mock examination was written and organised by senior clinical students that represent MedSoc on academic committees within the Medical School.

All mock exam patients were volunteers. The examiners were fourth and fifth year student volunteers that had attended a specific training session. The exam consisted of eight 8-minute stations: 6 minutes for the history and examination followed by two minutes for questions and individualised feedback from the patient and examiner. Students were given written feedback and the mark scheme at the end of each station.

Methods
An online questionnaire was produced and distributed to third year medical students at three separate time points: before the mock OSCE, between the mock and the real OSCE and after the real OSCE.

Students were asked to rate on a 5 point Likert scale in eight domains (these included time management, level of knowledge and level of overall preparedness) where 0= not at all prepared and 5= extremely well prepared. Statistical analysis was by t-test and paired t-test as appropriate.

Results
The mean overall level of preparedness for an OSCE examination before the students sat the mock OSCE was 2.60±0.13 (n=126). This improved to 3.61±0.15 (n=75) after the mock OSCE (p<0.0001), and to 4.21±0.19 (n=58) after the real OSCE (p<0.0001).

33 students completed all three surveys. Their results confirm a progression of preparedness; from 2.33±0.3 to 3.67±0.2 after the Mock OSCE (p<0.0001), and (retrospectively) to 4.18±0.26 after the real OSCE (p<0.0001).

Discussion and Conclusions
We were pleased to confirm our objectives were achieved; that a mock OSCE prepared students for their first summative OSCE. Although this might be viewed as an expected result, the unusual feature of this study is that the preparation was achieved without involvement of the faculty. Medical School faculties are understandably unwilling to divulge more than a handful of sample OSCE questions and mark schemes. This may not be sufficient for students to feel adequately prepared for this new form of assessment. We have shown that a self-help approach, organised entirely through the student body, which does not breach the confidentiality of the exam, can have benefits in this stressful situation.
The level playing field: the impact of assessment practice on professional development

GJ Gormley, C McCourt, JL Johnston, S Cooper

GJ Gormley, Senior Clinical Academic General Practitioner, Centre for Medical Education, Queen’s University Belfast (QUB), Northern Ireland

Background and purpose
The effects of assessment practice on students’ learning are unclear, particularly regarding professional development. Corralling in objective structured clinical examinations (OSCEs) is designed to reduce illicit passing of examination information. Candidates completing an examination are kept secluded until the next cohort of examinees has begun. We used the introduction of corralling as a context in which to explore social influences on examination misconduct, with the aims of improving understanding of the hidden effects of assessment, and evaluating the acceptability of corralling from the student perspective.

Methodology
A questionnaire was administered to students corralled post-OSCE for the first time. Eleven semi-structured interviews were subsequently conducted. Questionnaire data were analysed for descriptive statistics and thematic analysis of interview transcripts was carried out.

Results
The questionnaire response rate was 95.4% (251/263). Before corralling, 80.9% (203/251) of students were aware of the sharing of information among peers and 78.5% (197/251) agreed that such misconduct was unprofessional. The majority were in favour of corralling (90.8%, 228/251). Four themes emerged from the semi-structured interviews: the student network versus the individual; assessment-driven culture; the deferring of professionalism, and the ‘level playing field’. Students saw interaction within the student network, on a background of assessment-driven culture, as the key driver in examination misconduct. Conforming to the rules of the social network was prioritised over individual agency, although the mismatch between the rules of the network and the dominant professional discourse caused some conflict for individuals. Deferred professionalism (described as the practice of taking on the norms of professional behaviour only when qualified) was a rationalisation used to minimise this conflict. Corralling provided a ‘level playing field’ in which the influences of the network were minimised.

Discussion and Conclusions
Examination misconduct is thus a complex social construction with implications for individual learners in terms of professional development. Corralling is one mechanism for addressing misconduct that is acceptable to students, but assessment processes have important hidden effects which educators should acknowledge

References
Peer-led mock (P-L-M) OSCE - a resource-light but positively evaluated formative assessment

J D Cartledge, M Whitten, J Rattray

J D Cartledge, University College London, Mortimer Market Centre, London, WC1E 6AU

Background and Purpose
With no budget, one day’s time and restricted faculty availability a piloted P-L-M-OSCE was expanded to enable all students completing the module (Women’s health & communicable diseases) to participate. The 124 penultimate year students attended one of 3 OSCE sessions. Each session comprised two runs of the 9 station circuit. On the first run half the students were “candidates” and the other half “ examiners or simulated patients”; they swapped roles for the second run. Students who were examiners for a particular station did not attempt that station as candidates.

Candidates rotated in pairs (occasionally trios) alternating between doing the station or watching their pair-partner do the next station. At the start of the exam, peer-examiners, and SPs read their briefing documents and the process was explained. One station involved a mannequin. One academic and one administrator oversaw the OSCE. Each station lasted 5 minutes followed by 2 minutes of feedback.

Methodology
A paper questionnaire was given to 41 students involved in the final OSCE session of the day with Likert scale questions and a “traffic light” free text section asking what we should continue, change or stop. Free text comments were sorted into themes by the lead author.

Results
All 41 students completed the questionnaire. Overall, 40 (98%) agreed that the P-L-M-OSCE had helped gauge whether they had learnt enough. Watching other students (37; 90%); being an examiner (37; 90%); and being the SP (25; 61%) were considered helpful, as was peer feedback at each station (40; 98%). Most felt that the P-M-L-OSCE was more helpful than revision clinical teaching (34; 83%).

Only 11 (27%) felt that having peer examiners made the experience less helpful. Most disagreed that the P-L-M-OSCE was “like the real thing” most (34; 83%) In the free text feedback, students commented that the more relaxed atmosphere of being assessed by peers was helpful to learning and more fun, though some countered that making it more formal would be useful.

Discussion and conclusions
Running a peer-examined mock OSCE is feasible, and the experience of examining and being an SP are valued by students, as well as being candidates. Although the mock OSCE did not feel like the real thing, the informal nature, and the opportunity for feedback at each station made it a valuable learning experience.
The impact of a new assessment to assess readiness for consultant practice

A Davies-Muir, S Newell, G Muir, M Simpson

A Davies-Muir, Psychometrician, Royal College of Paediatrics and Child Health, London, UK

Background and Purpose
START is a novel assessment designed to assess readiness for consultant practice in senior paediatric trainees. Consequential validity is reported by examining adjustment in trainees' behaviour and practice following feedback from START. These data inform training needs in the final years before moving into the consultant role.

Methodology
Questionnaires were distributed via SurveyMonkey in November 2012 to the 59 trainees being assessed and the 37 assessors, with a respective response rate of 74.6% and 73%. A semi-structured approach collected data using Likert scales, combined with open ended questions.

Analysis addressed both quality and organisational issues. Summarised responses to the Likert scales are reported. Open ended questions were explored using thematic content analysis and main areas for development visualised with word clouds. Follow up data will be analysed and reported using a longitudinal approach to examine the impact of reflective changes to practice following the feedback from the assessment.

Results
74.4% of trainees and 100% of assessors (tend to agree, agree or strongly agree responses) recognised START as a good assessment of skills that are not assessed elsewhere such as critical appraisal and management of clinical complexity and complex prescribing. 64.3% of trainees and 100% of assessors noted that START was a good assessment of 'readiness' for consultant practice.

START assesses a range of skills requiring appropriate leadership and understanding team dynamics. Assessors identified leadership, prioritisation, multidisciplinary working and decision making as being the most predominant areas for development when considering all the trainees. This differed slightly from areas identified for development within the sub-specialties which additionally emphasised knowledge.

Assessors believe START will impact on trainees' learning and practice behaviour, emphasising importance of reflection and identified action on the feedback. It is considered fit for purpose in helping with the transition to consultant and focussing trainees on areas for development. Detailed feedback prompts trainees to seek opportunities, in identified domains, to improve and gain further experience. Future longitudinal follow-up evaluation and analysis of the impact which START has on the trainees will be undertaken.

Discussion and Conclusions
START provides trainees with new and useful feedback on behaviour and practice. The principal consequence is the focus on learning plans in readiness for consultant practice. These findings emphasise the importance of positive attitude and 'buy in' amongst trainees.
The use of mini-CEX in UK foundation training 6 years following its introduction: lessons still to be learned and the benefit of formal teaching regarding its utility

PSJ Weston

PSJ Weston, Specialist Registrar, Department of Neurology, Saint George’s Hospital, London

**Background and Purpose**

The mini-clinical evaluation exercise (mini-CEX) formative assessment tool has a strong theoretical basis\(^1\). It was first introduced into UK foundation training in 2006. Following this, several factors limiting its effective utilization were identified, and recommendations for improvement made\(^2,^3\). The purpose of this study was to reassess its use 6 years on, and to examine what opinions and attitudes now exist amongst foundation doctors. Furthermore, the potential benefits of formal teaching regarding the use of mini-CEX, and its introduction into undergraduate training, were also explored.

**Methodology**

The study population was Foundation Year 1 (FY1) doctors in the Northwest Thames Foundation School. Data was collected via an anonymous online questionnaire, with both quantitative and qualitative data being obtained.

**Results**

Fifty completed questionnaires were received. Ninety-eight percent of respondents had used mini-CEX during FY1, however only 32% had received formal teaching regarding its use. In terms of understanding of the purpose of mini-CEX, only 30% of trainees commented on there being a formative aspect or requirement for feedback. The majority of trainees did not feel that mini-CEX was a useful part of their training. The main themes that emerged were the poor attitude of assessors leading to assessments not being done correctly, and difficulties related to finding sufficient time. However, it was found that those who had received formal teaching as students regarding the use of mini-CEX were significantly more likely to find it beneficial than those who had not (\(p=0.031\)).

**Discussion and Conclusions**

Despite now being a part of foundation training for 6 years, many of the previously identified issues surrounding the effective utilization of mini-CEX continue to persist. In particular, both trainees and assessors lack understanding of the purpose of mini-CEX and how to use them most effectively. Therefore assessments are done without the intention of using them as a learning tool, resulting in inadequate feedback and poor educational value. However, a novel aspect to this study is the finding of a statistically significant difference in terms of the assessment tool’s perceived usefulness, between those trainees who had and had not received teaching regarding its use. Going forward, a more concerted effort to educate both trainees and assessors regarding the correct use of mini-CEX will facilitate a more effective use of the tool. Earlier education regarding use of formative assessment (i.e. during undergraduate training) may well lead-on to more effective utilization in the postgraduate setting.

**References**

Basic Science Teaching
What group size constitutes a small group for teaching clinical communication?

MI Omar, S Schofield

MI Omar, Managing Editor, Cochrane Incontinence Group, Academic Urology Unit, Health Sciences Building, University of Aberdeen, Foresterhill, Aberdeen, AB25 2ZD, UK

Introduction
Small group teaching is an important method of teaching clinical communication\(^1\). Smith and colleagues conducted a systematic review of 24 randomised-controlled trials to establish the most effective method of teaching clinical communication to medical students\(^2\). It was concluded that clinical communication could be taught effectively with small group discussion or feedback\(^2\). The interaction between students and tutors in small groups (with or without patients) improves the communication skills of medical students. Edmunds and Brown report that the average size of small teaching group tends to vary across cultures, with the average size in the UK normally between six and eight students\(^3\). In this project we explored the views of communication skills tutors on the role of small groups for teaching clinical communication and to establish the average size of these groups within UK medical schools.

Methodology
Members of the UK Council of Communication Skills Teaching in Undergraduate Medical Education were interviewed via telephone. A grounded theory approach was used to analyse the data and identify emerging themes. Interviews were conducted and transcribed by the lead researcher.

Results
Seventeen participants took part in the project and they indicated that small groups are a common and extremely important method for teaching clinical communication. However, there was no consensus as to the ideal size of small groups and this varied from three to thirty students. Examples of the views are given below:

“I think 3 or 4 is a good size for the number of students and of course you need a facilitator and an expert patient tutor.” (Participant no.10)

“The cut is about eight to nine students so quite small.” (Participant no. 08)

“In a small group you are looking at between 25 and 30 students. So it’s not very small but it’s not a big group either. That’s the sort of number that we are looking at.” (Participant no. 09)

Conclusion and recommendations
The findings of this research project do not suggest that the ideal size of a small group should be between six and eight students as indicated by Edmunds and Brown. On the contrary, the ideal size could vary from between three and thirty students. Further research should now focus on reasons for differences in preferred group size and to establish the ideal size of a small group for teaching clinical communication.

References
Team Based Learning (TBL) for Medical Students: Incorporating TBL into a medical school undergraduate curriculum

K McConville, F Muir

K McConville, Clinical Teacher & Clinical Research Fellow, Undergraduate Dept. of Tayside Centre for General Practice (uTCGP), College of Medicine, Dentistry & Nursing University of Dundee

Background and Purpose
Team Based Learning (TBL) has been described by various authors\(^1\), \(^2\) and is a well-established teaching process more predominant to date in the USA. As part of the revisions of the undergraduate medical curriculum in Dundee the General Practice and Community Medicine\(^3\) (GPPC) component of the course has implemented regular TBL sessions as part of the teaching process.

Methodology
The presentation will outline the main components of the TBL process and how it links with current underpinning pedagogical theories. Initial data results of the answers to the TBL questions will be presented; data collection is being provided utilising clicker technology via TurningPoint™

Results
Data results of semester 1 and 2 from the 2012/13 cohorts of years 1-3 medical students will be presented for discussion.

Discussion and Conclusions
Opportunity will be provided at the end for questions and answers on the TBL format, student opinions and the challenges associated with introducing a new teaching methodology into a medical school curriculum.

References
safeTALK for Medical Students: Incorporating a national suicide intervention teaching programme into a medical school undergraduate curriculum

K McConville, F Muir

K McConville, Clinical Teacher & Clinical Research Fellow, Undergraduate Dept. of Tayside Centre for General Practice (uTCGP), College of Medicine, Dentistry & Nursing University of Dundee

Background and Purpose
The most recent National Confidential Enquiry into Suicide in Scotland found that “twenty-eight percent of suicides nationally are by current or recent patients. The potential for prevention by mental health services is limited to this group. For others, action will be needed on public health, in primary care, by other agencies such as social care and probation and by society as a whole.¹

A recent needs assessment performed by NES and BASICS showed that GPs expressed a desire to receive more information and skills development in suicide crisis management, especially in rural Scotland.²

As part of its core medical curriculum the medical school at the University of Dundee runs a modular based General Practice and Primary Care programme which includes a number of themes. It was felt important, rather than await training at a post-graduate level that students had the opportunity to undertake information and skills development that deals with suicide crisis management.

Methodology
This is summary report on the pilot and subsequent formal introduction of teaching using a national suicide intervention teaching programme into a medical school undergraduate curriculum i.e. safeTALK³. Methods include a questionnaire survey on the background of workshop teaching, which incorporates a multi-media approach.

Results
Results from the survey be presented as well the framework of the educational intervention.

Discussion and Conclusions
Opportunity will provided at the end for questions and answers on the workshop format, student opinions and the challenges associated with using a nationally run programme which has become integrated into a medical school curriculum.

References
2. For more information please see www.nes.scot.nhs.uk/rheal/projects.asp (Accessed: 27th January 2013)
Learning through making: The use of anatomical model building in undergraduate anatomy education

CKW Lee, M Kalaya, S Rintoul-hoad, DJR Evans

CKW Lee, Senior Anatomy Demonstrator, Brighton Sussex Medical School, UK

Background and Purpose
Anatomy has traditionally been taught using a deconstructive approach through cadaveric dissections, but with body donations not always meeting demands, other ways of teaching anatomy may need to be employed (1). Anatomical model building using clay has previously been used as a teaching tool (2, 3). However, this type of approach has not been fully explored using alternative craft materials. We hypothesised that making anatomical models could help students learn and appreciate anatomical relations in 3-dimensional way. This approach formed the basis of a Student Selected Component (SSC) lead by anatomy demonstrators.

Methodology
12 Second Year Medical students participated in the “Creative Anatomy” SSC, which was conducted over a period of 8 weekly sessions. Six different anatomical models were made under the guidance of SSC tutors. Each reflected a different and difficult concept in neuroanatomy taught in the curriculum. Students also created their own models as part of the final SSC assessment. Quantitative academic data was collected through results of the pre / post-session quizzes, and summative quiz assessment. Questionnaires were provided to students at the start and end of the SSC to elicit qualitative and quantitative feedback data. A focus group session was conducted at the end of the module to further explore the student’s views. Data was transcribed and analysed using grounded theory approach with coding.

Results
Feedback showed all students felt an increase in anatomical knowledge, and this correlated with an average increase of 6.6 marks per student in post-session quizzes. Tackling difficult concepts was commonly cited as reason to undertake a particular model for the SSC assessment. From all data collected, learning via model making offered these principle themes: 1) 3D visualisation and tactile learning, 2) problem solving reinforced knowledge, 3) future use as teaching and revision tools, 4) creative outlook and enjoyment.

Discussion and Conclusion
Anatomical model making appears to be a valuable tool in anatomy education in conjunction with core curriculum approaches, as evidenced by improved student knowledge and positive student feedback. Model making involves a constructive approach which encourages creativity, 3-D visualisation, and problem solving in order to produce an “anatomically correct” model. Many of these skills are transferrable to other aspects of medical training and future medical career. Models produced also proved to be useful teaching and revision tools. This can be conducted in students own time, or in a supported environment within a Student Selected Component.

References
A review of the factors influencing the transition from student to junior doctor

C Alexander, J Millar, N Szmidt, K Hanlon, J Cleland

C Alexander, Undergraduate Medical Student, Division of Medical and Dental Education, University of Aberdeen

Background and Purpose
The transition from medical student to junior doctor is an important period of change and poses significant challenges for new doctors who are expected to perform adequately clinically, integrate into a clinical team and take full responsibility for their actions. Research shows that junior doctors often feel underprepared and experience high levels of stress on entering the workplace, and consequently burnout. Understanding how to best prepare for the transition may allow individuals likely to struggle to be identified and assisted. The aim of this study was to systematically review the literature on preparedness for practice in newly qualified junior doctors in order to identify the factors that influence the success of this important transition.

Methods
The search, which covered literature published in the last ten years (2002-2012), included three databases (Medline, EMBASE, and Scopus) and used the following key words: teaching, medical education, medical undergraduate students, transition, clinical clerkship, junior doctor and patient safety. Articles were included where they examined the transition from student to junior doctor, and measured or explored one or more factors affecting preparedness. Data extraction and critical appraisal were undertaken independently by four reviewers.

Results
Nine papers were included in this review. These varied in design and methodological quality, with most using a survey methodology (n=7). Six found knowledge and skills, particularly deficiencies in prescribing and practical procedures, relevant in terms of preparedness. Five looked at personal traits with high neuroticism and low confidence deemed to be important. Medical school and workplace factors including early clinical experience and shadowing positively affected preparedness, whilst a lack of senior support proved detrimental. The influence of demographics was inconclusive.

Discussions and Conclusions
The studies reviewed indicate that both personal and organisational factors are pertinent to managing the transition from student to junior doctor. Further, prospective studies, both qualitative and quantitative, drawing on theories of change, are required to identify what precise factors would make a difference to this transition.

References
Career Decision Making
Career preferences in new-entrant and exiting medical students in Scotland

J Cleland J, PW Johnston, N Khan, M Anthony, N Scott

J Cleland, Division of Medical and Dental Education, University of Aberdeen, Foresterhill, Aberdeen, AB25 2AZ

Background and Purpose
The feminisation of the workforce and predicted post shortages has focused international interest in medical workforce planning. Multiple factors influence career decisions but one potentially influencing factor which has been sidelined is that of medical school. Our earlier work (1) identified that Year 1 medical students have definite careers preferences but work is required to explore differences in careers intention in new medical students compared to those who have been shaped by medical education. Our objective was to explore students’ career preferences and the influences of these preferences upon entry into and exit from undergraduate medical degree programmes in the UK, using a cross-sectional questionnaire survey.

Methodology
Two cohorts (2009, 2010) of Year 1 and Year 5 medical students at the four Scottish graduating medical schools were invited to take part in career preference questionnaire surveys.

Results
The overall response rate was high (2343 responses; (>70%). Year 1 student demographics and careers preferences differed significantly across the four medical schools. Careers preferences differed within and between schools in Year 5 students. Specialty preferences differed by gender, ethnicity and nationality and were related to desire for work-life balance and intellectual satisfaction. Specialties which were more popular in 5th year could arguably be described as having a better work-life balance than some of those preferred by Year 1 students (e.g., GP was more popular with exiting students).

Discussions and Conclusions
This study is part of a research programme exploring career aspirations in Scottish doctors-to-be. We identified that the student intake of medical schools is different but that the experience of medical school itself influences career preference. A robust, longitudinal study is required to provide more understanding of the influence of variables such as the learning environment on training choice and outcomes.

References
Clinical Skills
The Role of Feedback in Technical Skills Acquisition: Investigating the Efficacy of Video Assisted Feedback

C Nesbitt, D Sakutombo, A Gungadeen, I Pooleman, H Jones, J Chambers, G Stansby, R Searle

C Nesbitt; Surgical Registrar; Northern Deanery, and Research Fellow in Surgical Education with Newcastle Upon Tyne University.

Background and Purpose
The precise role of feedback in technical skills undergraduate training remains unclear. The 2011 national student survey\(^1\) revealed universal dissatisfaction from medical students with the amount of feedback they receive during training.

The aim of our trial was to assess the role of video enhanced feedback, in particular the role of unsupervised, video enhanced feedback, in maximising candidate performance during undergraduate medical technical skills training.

Methodology
32 surgical suturing novices were recorded performing a simple suturing exercise in a Scotia Medical Observation Training System (SMOTS\(^{TM}\)) examination bay. Candidates were then randomised into three feedback groups: 1) standard lecture feedback (SLF), 2) viewed their initial performance on video – unsupervised (UVF). 3) Viewed their performance alongside an expert who provided additional feedback (EVF). All candidates were then recorded performing the same suturing skill. Pre and post feedback videos were edited, fully anonymised, randomly ordered and scored by two blinded suturing experts. Candidates completed post trial questionnaires of their satisfaction of the feedback they received.

Results
All trainees improved their performance scores following feedback (SLF p=0.007, UVF p=0.002, EVF p=0.001). Groups receiving UVF and EVF showed superior improvement over those receiving SLF (p=0.048, p=0.009). No difference was seen between UVF and IVF (p=0.593). Trainees preferred video enhanced feedback to SLF, favouring EVF. All were highly satisfied with UVF.

Discussion and Conclusions
Video based feedback (UVF and EVF) demonstrated improved performance of suturing in the novices in our trial. Lecture based feedback is not favoured by students. EVF confers no superior benefit over UVF. Students unanimously agreed that they preferred video assisted feedback, to SLF.

This is the first trial in the literature to report a statistically significant benefit for unsupervised video feedback, but no superior difference when compared to video plus expert feedback, for training novice candidates to perform a surgical skill. This concept has exciting potential for many aspects of medical training, where there is a high demand for enhanced feedback from trainees amidst a climate of tighter budgets, fewer skills staff and reduced training time. Further research is needed to analyse the scope of this technique.

References
The UK Endovascular Trainee (UKETS): A Novel Collaborative Training Group. Promoting Patient Safety Through Basic Endovascular Skills Training

C Nesbitt, S Mafeld, J McCaslin, K Nelson

C Nesbitt; Surgical Registrar; Northern Deanery, and Research Fellow in Surgical Education with Newcastle Upon Tyne University.

Background and Purpose
The specialty of endovascular intervention has increased exponentially over the last decade. Interventional cardiology, radiology and vascular surgery are dominated with endovascular practice. The fundamental principles of endovascular practice are akin to all three specialties; these are “safe arterial access, safe arterial navigation and safe arterial closure”. These core skills should ideally be taught on endovascular simulators, but despite overwhelming evidence in support of this1,2,3,4 we do not have integrated simulation training in endovascular skills in the UK. UKETS has been established by trainees for trainees. Aiming to deliver collaborative, expert led, hands on, VR simulation based basic skills training. We believe no trainee should first operate on a patient without first practicing on a simulator. UKETS provides this opportunity.

Methodology
We have established an endovascular training group (ww.ukets.org). We have no political agenda, except that of promoting safe endovascular practice. In August 2012 we ran our pilot event. Trainees from radiology, cardiology and vascular surgery were invited to attend. Feedback was obtained through online retrospective questionnaires. Training focussed on the core principles of “safe access, safe navigation, safe closure”. Our faculty was a hybrid of the three interventional specialties.

Results
75% of trainees had never trained on a simulator prior to attending. 100% agreed or strongly agreed that simulation was a useful tool in achieving their course objectives. 85% agreed or strongly agreed that cross specialty training was useful. Our faculty unanimously agreed that the course represented a valuable and unique training opportunity.

Discussion and Conclusions
UKETS is the first group to combine cross-specialty collaboration, whilst promoting basic endovascular skills training. The course represents a safe environment for successful skills acquisition. Feedback indicates trainees enjoyed the opportunity, and we plan to run the event again in the near future.

References
Use of simulation to support junior doctors with learning needs

A Williamson, J Hanson, S Warne

A Williamson, Medical Education Manager, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Royal Victoria Infirmary, Newcastle Upon Tyne, UK

Introduction
The medical education team provide support to supervisors managing junior doctors with a range of additional learning needs. Accurately ascribing the root of concerns can be particularly difficult with non-technical skills such as communication and confidence within a team.

Aims
• To develop an educational intervention to enhance non-technical skills for trainees with identified concerns
• To enhance patient safety by facilitating trainee understanding of the potential impact of poor non-technical skills
• To provide individualised formative feedback
• To assist supervisors and trainees to develop individualised personal development plans (PDP)

Methods
A programme was designed to explore common communication issues and human factors in stressful situations. Educational tools ¹ and lessons from the aviation industry were utilised ². The programme included a facilitated discussion regarding the impact of poor communication on patient safety and the individual’s responsibility to ensure clarity when giving and receiving instructions. Simulated scenarios were used to allow individuals to practice frequent situations and receive a constructive debrief. The scenarios required the trainee to access the situation, decide on initial management plan, request help appropriately and handover effectively. Multi-professional team members participated in the event and assessed communication and teamwork skills. A short individualised feedback summary was provided to the junior doctor and supervisor outlining positive feedback and areas where further development was recommended. Supervisors used this to inform the PDP.

Results
The programme has been piloted with 4 junior doctors from Orthopaedics, Ophthalmology, Neurosurgery and Acute Medicine. Confidence in communication and effective handover increased from a mean of 2/5 prior to the event to 4/5 following the event. 3 trainees have subsequently successfully achieved their objectives within their PDP and have received a satisfactory global assessment in their final supervisor report. 1 junior doctor resigned from the post as they were unable to develop their clinical skills sufficiently to achieve a satisfactory level of performance.

Conclusions
The programme facilitated an assessment of non-technical skills in a safe environment. It encouraged junior doctors to take responsibility in evaluating and discussing areas of good practice and areas requiring further development. Feedback from participants identified that the event helped reinforce confidence in appropriate practice and empowered them to make the necessary changes. Supervisors stated the reports provided clarity on the assistance necessary to support junior doctors with training needs.

The use of otological simulation in medical undergraduates: can generic skills be acquired from a specific surgical model?

J Siddiqui, A Singh

J Siddiqui, Clinical Teaching Fellow in Otolaryngology and Radiology, North West London Hospitals NHS Trust, London, UK

Background
Simulation is a highly-utilised learning tool in both surgical and otolaryngological postgraduate training. Benefits include acquisition, retention and refining of surgical skills, as well as learning to cope with the challenging simulated scenarios (1).

In an undergraduate setting, otolaryngological computer-based virtual reality simulation has been used in the setting of anatomy teaching (2, 3).

The aims of this study were to evaluate the benefits of a physical otological simulator in medical undergraduates.

Methods
Thirty final year medical undergraduates with no previous otolaryngological knowledge, and no current career aspirations in otolaryngology were recruited in this study. Students watched a video of a myringotomy and grommet insertion. Students were then asked to complete a series of tasks of increasing difficulty simulating this operation, using a surgical microscope, simulated ear, and real surgical instruments.

Feedback was gathered regarding the usefulness of the simulator in development of generic visuospatial skills, hand-eye co-ordination, manual dexterity, haptic feedback, and operative confidence. Satisfaction at completion of the tasks was also assessed quantitatively using a visual analogue scale. Time to task completion was recorded.

Results
All students completed the assigned tasks. All agreed a subjective improvement in generic practical skills including visuospatial skills, hand-eye co-ordination, dexterity, haptic feedback, and operative confidence, following the use of the simulator. Mean visual analogue scores of satisfaction were high at >80%. Time to task completion also decreased, despite the progressively increasing difficulty of tasks (p<0.05).

Conclusion
A simulator of a specialised surgical procedure led to a subjective improvement in generic skills, and high levels of satisfaction, as well as an objective reduction in time to complete tasks. These skills may be useful in future conduction of practical skills, both medical and surgical.

References
Satellite centre provision of the Surgical Skills for Students course: results of a one year pilot study

P Tostevin, J Smelt

P Tostevin FRCS-OTOHNS, Head of Undergraduate Clinical Teaching Centre, St George’s University of London, Honorary Consultant ENT Surgeon St George’s NHS Trust, London

Background and Purpose
Launched in February 2011, the Royal College of Surgeons of England (RCSeng) student surgical skills (SSS) course consists of two half day sessions aimed at teaching medical students a ‘one safe way’ to carry out basic surgical procedures. Surgical competencies outlined in Tomorrow’s Doctors¹ and the Foundation Curricula² were identified and these skills form the basis of the course topics. The course mirrors the first day of the intercollegiate basic surgical skills (BSS) course. The faculty provide individual formative feedback to the students and are available for careers advice in surgery. Participants are required to complete a confidential online feedback proforma provided by the RCSeng in order to receive a certificate of course completion³. The course is available to RCSeng regional centres and medical schools⁴. This pilot study aims to evaluate the success of a year of satellite centre course provision and encourage other centres to take up this opportunity.

Methodology
Feedback data from a full year group of MBBS students, consisting of 35 question stems, was obtained for the academic year of 2011 to 2012 from the RCSeng and analysed.

Results
274 (n) students participated in the SSS course within the academic year of 2011-2012. There were 13 courses with a mean of 19.6 students per class. All participants gave feedback. 72.6% (n=199) of the participants were very satisfied with the course overall with 25.5% (n=70) being satisfied. 5 students (1.8%) felt neutral satisfaction. No participants were dissatisfied or very dissatisfied. 100% (n = 274) would recommend the course to others.

Discussion and Conclusions
The BSS course has already been shown to improve participant ability in the operating theatre⁵ and is now a prerequisite in application at ST3 level in surgical specialities⁶. However, skills taught on the SSS are often required in most specialities. We feel that students recognise this and the course bridges the gap that exists in surgical skills tuition prior to foundation years.

These results show a high level of participant satisfaction across the board for this course taught at this satellite centre. This has led to continued provision of the course at our satellite centre. This study demonstrates success of the SSS course can be achieved outside of the college itself.

References
Developing undergraduate surgical skills: what a difference a day makes

P Tostevin, Y Jauhari, J Smelt

P Tostevin, Senior Lecturer in Surgical Education SGUL Honorary Consultant ENT Surgeon St. George's NHS Trust, London, England

Background and Purpose
Within the demands of the current medical curriculum, there is only small emphasis on the development of basic surgical skills at an undergraduate level 1. Furthermore, in our practice, we observe that students are rarely presented with opportunities to build on these skills in the clinical environment. As more focus is placed on surgical skills training in workshops or by simulation, we review the effect this has on the development of undergraduate suturing skills.

Methodology
The evaluation of development of surgical skills was based on performance in a suturing based OSCE and qualitative feedback and following the SSS course.

Two separate cohorts of first (Y1) and second year (Y2) clinical students were presented with the same suturing objective structured clinical examination (OSCE) on during the end of year examinations. Their task during 10 minutes was to put on a pair of sterile gloves and apply 2 interrupted sutures using instrument tie to a foam pad. Pass marks were set using the borderline regression method.

All students had a one hour tutorial on suturing in their first clinical year. In addition to this, students in Y2 had also participated on a one day Royal College of Surgeons accredited surgical skills for students (SSS) course.

Results
In total, 310 Y1 and 290 Y2 students sat the OSCE suturing station. There was no significant difference in the proportion of students enrolled in the accelerated graduate medicine course ($p = 0.24$).

In the OSCE, there was an improvement in the pass rate between Y1 and Y2 (71.6% and 87.7%, respectively). This was corroborated by an improvement in overall pass mark between the two cohorts. Crohnbach’s alpha for the OSCE was >0.7.

In the SSS course feedback, 95.6% of students felt that the course was appropriate for their undergraduate level. Furthermore, there was over 96% satisfaction level for the development of individual skills such basic instrument handling, knotting and suturing.

Discussion and Conclusions
Overall, there was improved confidence and learning of basic surgical skills following the one day SSS session. In the future, integration of this formal course into the curriculum may enhance the teaching of undergraduate surgical skills.

References
Using patterns of error in acute care to inform educational strategies

VR Tallentire, SE Smith, J Skinner, HS Cameron

VR Tallentire, Specialist Registrar and Honorary Fellow in Medical Education, University of Edinburgh, UK

Background and Purpose
New medical graduates feel poorly prepared in acute care 1. Supporting this perception, patients admitted on the day that junior doctors commence work in the UK have an in-hospital death rate 6% higher than those admitted a week previously 2. This research aimed to explore the patterns of error made by newly qualified doctors in simulated acute care scenarios, to inform educational strategies. Reason’s generic error-modelling system (GEMS) 3 was utilised in this study because it provided a practical and logical framework which recognises the importance of both observed behaviour and cognitive processing.

Methodology
Following ethical approval, 38 junior doctors participated in simulated acute care scenarios. Each video-recorded scenario was followed by an audio-recorded debrief which encouraged articulation of underlying cognitive processes. Evidence from each scenario and debrief was used to classify errors according to GEMS. The principles of ‘Framework’ analysis 4 were used to inductively develop a thematic framework consisting of key subject areas. ‘Framework’ is an analytical process which facilitates systematic analysis of qualitative data whilst promoting the generation of actionable outcomes 4. All key subject areas related to facets of observable behaviour and did not include attitudes or personality traits which cannot be directly observed. In order to identify patterns of error, a multidimensional analysis involving GEMS and the iteratively-developed key subject areas was undertaken.

Results
Eight key subject areas were identified. There was a predominance of rule-based mistakes in relation to the key subject areas of ‘hospital systems’, ‘prioritisation’ and ‘treatment’. In contrast, ‘procedural skills’ and ‘communication’ were more closely associated with skill-based slips and lapses. Knowledge-based mistakes were less frequent but occurred in relation to ‘hospital systems’ and ‘procedural skills’. Specific examples of errors within each subject area will be presented.

Discussion and Conclusions
If the initial assessment and management of acutely unwell patients by junior doctors is to be improved, it is important that medical educators understand the causes and patterns of common errors. This information can be used to guide educational strategies pertinent to both undergraduate and postgraduate training. Rule-based mistakes may be amenable to simulation training, where students can experiment with changing priorities whilst observing the clinical consequences. The predominance of skill-based slips and lapses relating to procedural skills and communication demonstrates the detrimental effects of stress on cognition. It is therefore important to provide training that acknowledges the role of stress and provides strategies to reduce its impact.

References
Continuing Education
The Importance of the A,B,C,D,E Assessment, in Making a Diagnosis and Calling for Help in Simulated Critical Incidents.

R Harvey, E Mellanby, I Stewart, S Edgar

R Harvey, Clinical Teaching Fellow, NHS Lothian, 19 Kingsmeadows Gardens, Peebles, EH45 9LA

Background and Purpose
Junior doctors are frequently the first responders to critically unwell patients, however, they feel inadequately prepared for this role (1). Failures in patient management frequently stem from inadequate basic assessment, early initiation of simple clinical measures, and escalation of care (2). Novices lack consistency in patient assessment, linked to less experience and inability to make intuitive decisions (3). We investigated the impact of explicitly reinforcing an assessment structure on subsequently reaching a diagnosis and calling for help, in a medical student cohort.

Methodology
84, fourth year medical students, at Edinburgh Medical School, completed a simulated critical incident, in groups of 3, using a medium fidelity SimMan, followed by a structured debrief by clinicians experienced in simulation teaching. In total 28 simulated critical incidents were completed, with participant observation, to record if a structured A-E assessment was performed, correct diagnosis reached, and a call for help made.

Results
Out 28 scenarios, a structured A-E assessment was performed by participants in 50% (n=14). Of those scenarios where an A-E assessment was performed, participants made the correct diagnosis in 86%. No correct diagnosis was made if candidates did not perform a structured A-E assessment. In scenarios where candidates had performed a structured A-E assessment and reached a correct diagnosis (n=12), a call for help was made in 83%. In only 2 scenarios (7%) was a call for help made without an A-E assessment, or correct diagnosis being formulated.

Discussion and Conclusions
Our results suggest that for a novice clinician, an A-E assessment must be performed in a structured manner, for a correct diagnosis to be more likely to be made. A call for help is also more likely to be made if the correct diagnosis is reached. We feel that training for medical students in acute care skills must include a structured A-E assessment as an essential component, and, that the ability to learn and practice it, in simulated environment will have a demonstrably positive impact upon the management of acutely unwell patients, by the newly qualified doctor.

Further work
We note the data that indicates that some students, despite explicit reinforcement of the protocol, fail to use it in subsequent acute care scenarios. We plan further work to investigate the barriers to utility of the ADCDE protocol and postulate that some of these may be socio-cultural relating to opinions of senior clinicians on protocols in general.

References
Curriculum Planning
Psychosocial Paediatric Training in Iraq: Perspectives of Trainers and Students

A K Al-Obaidi, T Corcoran, M A Hussein, A Ghazi


Background
There is an absence of education regarding psychosocial issues in Iraqi paediatric training programmes. The aim of this study is to examine current knowledge and perspectives around these topics and to explore potential development in these programmes.

Methods
56 paediatric trainers and students at the Child Central Teaching Hospital, a hospital affiliated to the Al-Mustansyria medical college in Baghdad, responded to a questionnaire to evaluate knowledge and perspectives regarding psychosocial approaches to child and adolescent health as delivered presently via academic training and used in professional practice.

Results
The majority of the respondents reported having no training in psychosocial interventions. Using a scale from 0 (not relevant) to 10 (very important), psychosocial issues were rated 7.1 in their relevance to everyday paediatric practice. On a scale of 0 (very poor) to 10 (totally adequate), respondents rated formal current psychosocial training at 2.5.

Conclusion
Incorporating psychosocial approaches in paediatric training will lead to a broader base of knowledge in children’s health and contribute to the promotion of multidisciplinary practice in Iraq.
Factors which influence the career choices of medical students

A Hastings, S Nicholson, R.K.McKinley, P M McIntosh

A Hastings, Department of Medical and Social Care Education, Leicester Medical School

Context
There is a serious mismatch between the career aspirations of senior medical students and the availability of specialty training posts in the UK. The competition ratios between specialties range from 1.4 to 15.9 applications per post in 2012.(1) Some UK specialty training schemes are unable to fill their vacancies with suitably qualified applicants. There are reports about the career intentions of medical students but most are quantitative and the items used in questionnaires were determined by the questionnaire authors. Furthermore, career intentions are fluid, influenced by factors outside of the control of medical schools and in periodic surveys conducted since 1993 have varied considerably.(2)(3) We perceived a need to identify those factors that are currently driving the career intentions of UK medical students.

Methods
We chose a focus group methodology. Students in their fourth year, who were about to apply for foundation posts or who had recently done so, were invited to attend. Focus groups were held in seven UK medical schools, selected to represent a range of schools (e.g. ‘red brick’ university, new school etc.). All eligible students received the invitation. The groups were facilitated using a topic guide by an experienced qualitative researcher (PMM), who is not involved in curriculum design or delivery. The discussions were transcribed verbatim, anonymised and distributed to the study team. Each member read every transcript, identified emergent themes and proposed amendments to the topic guide to increase the probability that all significant factors were debated.

Results
Analysis identified five categories: Medical school culture; Prior influences; Curriculum experiences; Perceptions of a particular specialty and Catalysts of change. Important examples of recurrent themes were: the authenticity of clinical placements, positive and negative experiences of the undergraduate curriculum including early and sustained exposure to specialties, role modelling and the complexity of the interactions between them. Students’ personalities, prior experiences and lifestyle preferences were explored.

Conclusions
Fresh understanding of how students’ perceptions of working within certain specialties affected their choices was gained. Our study has shown that although the factors influencing career choice are complex, some are potentially within the control of schools.

References
ERG Themed Research
Characterising medical students’ learning during immersive simulations

I Davies, H Higham, I Lunt

I Davies, DPhil Student Nuffield Department of Anaesthetics, John Radcliffe Hospital, Headley Way, Oxford, OX3 9DU

Background and Purpose
Simulation as a teaching technique is nearly ubiquitous in medical education. Whilst feedback and good debriefing maximise learning from simulation, not much is known about the process of learning within an immersive simulation or which theory of learning is the most appropriate to use. This study, conducted for a DPhil, characterises the learning process.

Methodology
This is a qualitative study using interview and video data. Groups of eight final year medical students spent one day in the simulator centre as part of their anaesthesia module. They each took part in an immersive scenario (Laerdal SimMan) of a different acutely ill medical patient, with a faculty member taking the role of a nurse to assist them. Each group was randomly assigned for the students to perform their scenario paired or solo, and each scenario was video recorded. Participating students were then invited to attend for a 30 minute semi-structured interview.

Results
76 students were recruited voluntarily over five months from 12 anaesthesia modules. 68 students attended the simulation day and 65 students were interviewed. 62 interviews were transcribed. The transcripts were analysed using inductive and deductive analysis for themes and the videos were used for triangulation. Several of the most relevant themes will be presented.

Discussion and Conclusions
One theme that emerged was how the students changed their understanding of uncertainty during the simulation scenarios. This change corresponds with theories1,2 of personal epistemology development. When students qualify they need to manage the uncertainties of their new role3 and using simulation as a safe place for them to develop this aspect of professional practice could help them with this process.

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Developing workplace-based learning initiatives to improve foundation doctor’s antimicrobial prescribing: a narrative interview study

K Mattick, N Kelly, C Rees

K Mattick, University of Exeter Medical School, St Luke’s Campus, Exeter, EX1 2LU

England

Background and purpose
Prescribing is a high-risk area of medical practice (Department of Health, 2001). Junior doctors are numerically the largest prescribers in hospital settings (Tully et al. 2009) and an important target group for quality improvement initiatives. Research indicates the existence of a knowledge-behaviour gap (Kennedy et al. 2004), suggesting that educational initiatives focusing on knowledge deficits are unlikely to succeed. This British Society of Antimicrobial Chemotherapy-funded project aimed to understand the antimicrobial prescribing experiences of UK foundation doctors and inform the development of educational strategies to support them.

Methodology
20 narrative interviews with 36 foundation doctors were performed across 2 hospitals (England and Scotland) and analysed using framework analysis. Three possible educational strategies, derived from the data, were shared with our expert reference panel and research participants, and an analysis of their feedback was undertaken.

Results
The coding framework contained 6 themes and 86 subthemes. The first theme contained 191 narratives and the other five themes contained fragmentary coding of the full interview data (narrative and non-narrative data). The data reveal the key challenges faced by foundation doctors in their antimicrobial prescribing: including variability between wards and conflicting opinions between senior staff.

Discussion and Conclusions
Throughout the research, we worked with foundation doctors to ensure that our recommendations met the needs of foundation doctors and were workable. Our findings suggest that all hospital wards should provide induction material for new foundation doctors; that educational strategies to increase the quantity and quality of feedback received by foundation doctors and their exposure to the antimicrobial prescribing decision-making processes of experts are required; and that the educational remit of microbiologists and pharmacists should be expanded.

References
Share the load: Shared decision making and the student curriculum – a pilot study

LA Davies, R Ayres, V Maynard, H Neve, A Davies, H Khalil

LA Davies, Research Assistant, School of Clinical Education, Plymouth University Peninsula School of Medicine and Dentistry, Plymouth, UK

Background and Purpose
Shared decision making (SDM), expressed pithily as “nothing about me without me”1, is a key principle of the current NHS reform programme and has become a policy objective for health reforms around the world. The Salzburg statement on SDM was signed by 58 healthcare leaders from 18 countries2 and represents a drive towards the “democratisation of medicine”3. However, despite the evidence that SDM improves care4, trainee doctors, both in the UK5 and US6, often fail to make even “a minimal attempt to exhibit the behaviour”. Research in our own school, the Plymouth University Peninsula School of Medicine and Dentistry (PUPSMD), has also found that students often do not include patient-centred issues in decision making. One issue may be that the drive toward Evidence Based Medicine (EBM) can result in a conflict with the patient narrative and hinder SDM7,8. The aim of this study was to identify the most appropriate integrated model of Evidence Based medicine (EBM) and SDM and to identify the most suitable points, within the undergraduate curriculum to introduce it.

Methodology
We introduced an integrated EBM & SDM model (iSDM)10 into the Problem Based Learning element of the curriculum, for Year 1 students, and into three clinical placements, for 3rd year students (two in hospital setting and one in the community). Within the clinical placements, we asked to students to observe and assess EDM & SDM in practice, using a validated measure of SDM, the OPTION tool6 and, where feasible, to use the model in their case presentations.

Results
The outcomes from the pilot study and focus groups will be presented, along with a review of the feasibility of incorporating the iSDM model into the curriculum.

Discussion and Conclusions
Experience thus far will be shared, including the barriers we faced in implementing the pilot in clinical settings, and learning outcomes and pedagogies appropriate for promoting SDM as an essential Modus Operandi for all Doctors will be presented.

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International Medical Education
Priorities for Medical Education Research Across Scotland

A Dennis, M Lough, J Ker, J Cleland, P Johnston, G Leese, C Rees

A Dennis, Postdoctoral Research Fellow, Centre for Medical Education, University of Dundee, Dundee, Scotland

Background and Purpose
The Scottish Medical Education Research Consortium (SMERC) conducts medical education research under two key healthcare themes: workforce selection and development; and workplace learning environment enhancement (NHS Education for Scotland, 2010). A research priority exercise (Lomas et al., 2003) was required to examine issues under these themes that are specific to Scotland and the UK yet allow for comparison to other nations, such as Canada and New Zealand, the only other countries which have conducted national medical education research priority setting exercises (Wilkinson et al., 2010; Hodges et al., 2011). Thus, the objective of this study was to conduct a priority setting exercise to identify research priorities for Scottish medical education research over the next 3-5 years.

Method
This study used a modified Delphi technique (Jones & Hunter 1995) to achieve a convergence of opinion on research priorities for Scotland. The Delphi method is a structured, transparent and replicable way of synthesising individual, anonymous judgments, and provides a means of collating expert opinion where little evidence exists (DeVilliers et al., 2005). Participants representing 15 stakeholders groups (e.g., Medical Trainees, Directors of Medical Education, Educational Supervisors) across Scotland were recruited. First, participants completed a qualitative online questionnaire where they described their top 3 priorities. Twenty-one themes were identified in this initial round. In stage two (in progress), participants will be given a set list of priorities, generated from the first questionnaire, and asked to rank these in terms of importance. Finally, the data collected from the questionnaires will be qualitatively and quantitatively analysed, areas of agreement and disagreement clarified, and items achieving consensus will be distributed to key stakeholders to provide a final opportunity for participants to revise their judgments considering a set of established criteria. These recommendations will then be provided to NES and a set of research priorities for SMERC will be determined.

Results & Discussion
The use of a consensus approach involving all key stakeholders will facilitate the development of a list of medical education priorities for Scotland. In this presentation, the initial themes identified in stage one will be presented along with an update of the findings from stages two and three. The results of this study will provide the focus to translate existing expertise and resources into world-class research that can be practically applied to positively impact medical education in Scotland and facilitate cross-cultural comparisons in medical education.

References
European consensus on the Bachelor of Medicine: report of the MEDINE2 Bologna First Cycle study

M T Ross, A D Cumming: On behalf of Working Group 4 of the MEDINE2 Thematic Network

M T Ross, Centre for Medical Education, Chancellor’s Building, 49 Little France Crescent, Edinburgh, Scotland, EH16 4SB

Background and Purpose
The Bologna Process requires all European Higher Education institutions to adopt a three-cycle system of Bachelor, Master and Doctor degrees (www.ehea.com). A robust research-based approach to gain consensus on core learning outcomes / competences was developed by the Tuning Project (http://www.unideusto.org/tuning/), and used by Tuning (Medicine) to gain consensus on core learning outcomes for primary medical degrees (Master of Medicine) across Europe (Cumming and Ross 2007, 2008). The results have been widely accepted and influential. The current study, undertaken by the EU-Funded MEDINE2 Thematic Network (www.medine2.com), sought consensus on core learning outcomes for the Bachelor of Medicine across Europe.

Methodology
An online survey was developed from the Tuning (Medicine) results. Respondents were asked to indicate to what extent they thought students should have learned each outcome by the time they had successfully completed three years of university education in medicine. A Likert scale of ‘Not learned’, ‘Knows’, ‘Knows how’, ‘Shows how’ or ‘Does’ was used, adapted from Miller’s triangle (Miller 1990).

Results
There were 560 responses to the survey, representing medical students, academics, graduates, employers and patients, and virtually all EU countries. Although opinions varied, there was moderately high consensus between respondents that all of the learning outcomes defined by the Tuning (Medicine) project for the primary medical degree should be achieved to some extent by the end of the first three years of study (Bachelor of Medicine). Free text comments suggested some additional learning outcomes, raised concerns about defining the Bachelor of Medicine, and highlighted the need for such a degree to be a useful qualification and to include early patient contact and practical clinical experience.

Discussion and Conclusions
It has been possible to achieve broad consensus across Europe on core learning outcomes for a Bachelor of Medicine degree. Although opinions may vary on individual outcomes, there is now a common framework and terminology for discussing these and for defining what a Bachelor of Medicine graduate can and, importantly, cannot do. Defining the Bachelor of Medicine degree in this way would promote early patient contact and clinical experience, and thus promote integration in the undergraduate medical curriculum.

References
Can electives be more responsible?

J Dowell, N Merrylees, B Kumwenda

J Dowell, Reader, Electives Convener, Dundee Medical School, Mackenzie Building, Kirsty Semple Way, Dundee, UK

Background and Purpose
Concern has emerged regarding electives over recent years relating to a number of issues, not least since the GMC has included Global Health within Tomorrows Doctors 2009. Medical schools typically apply a very ‘light touch’, allow students to do what they like and have minimal requirements of them. Surveys suggest around 50% of students go to ‘resource poor’ settings and there is particular concern about these in terms of personal safety, students performing beyond their competence and the morality of western students learning in such environments without contribution to their hosts. Interest is developing in alternative models.

Methodology
Since 2006 we have been developing an alternative approach that seeks to address many of the concerns listed above. Though aimed primarily at electives in resource poor settings, some aspects apply more widely.

We have sought to stimulate progress by convening regular meetings of Electives Convener’s from around the UK under the auspices of the Medical Schools Council. This has been underpinned by a number of surveys assessing current elective practice and students views on return. We have recently conducted an interview study of staff and students in three sub-Saharan African countries.

More practically we have run a partnered extended elective program with a site in Malawi, developed pre-departure preparatory materials and workshop and created an online platform for a more ‘fair-trade’ style elective.

Results
There is evidence of increasing recognition of the issues and interest in creating a range of solutions. Medical schools are sharing resources and best practice and seeking to engage on issues such as visa requirements for incoming students (with UKBA). Six online learning modules developed for Dundee students are now freely available to all. The Royal Society for Medicine is collaborating with the UK Electives Convener’s Council in seeking to promote alternative effective models that enhance the educational experience whilst ensuring host units receive clear benefits. Developments in these all of areas will be presented as informed by our various surveys etc where relevant.

Discussion and Conclusions
This presentation will seek to be thought provoking and, indeed, provocative. There are no easy solutions but there is considerable enthusiasm amongst students and many faculty to improve the current situation.

We seek to raise awareness, develop discussion and promote concerted action to progress this agenda further.
An Evaluation of the Malawian College of Medicine Elective Programme at the University of Dundee

O McIntosh, M Mipando, A Greene

O McIntosh, International Health BMSc Student, Tayside Centre for General Practice, Medical Education Institute, University of Dundee (UoD), Scotland

Background and Purpose
Traditionally, it is considered that the main aims of an elective period are to experience medicine out-with students’ usual contexts, explore different cultures and encourage personal and professional growth. Elective periods are deep-rooted in Western medical education, with an estimated three-hundred and fifty years of UK elective time spent in developing countries annually. However, elective programmes are a recent addition to Malawian medical education with around sixteen students going on an overseas elective each year. The School of Medicine at the UoD has a reciprocal relationship with the College of Medicine (COM) in Malawi, providing learning opportunities for medical students from both institutions.

This research project aims to review, for the first time, the six-week Malawian COM elective programme at the UoD which is financed by the Scottish Development Fund. The programme has been in operation since 2007 to 2012 and a total of twelve COM student participants have successfully completed electives at the UoD.

Methodology
Using qualitative methodology through semi-structured interviews conducted in Malawi, the perceptions, beliefs and behaviour of the research participants (COM medical students and graduates who have completed electives at the UoD) will be explored in order to gain a better understanding about the efficacy of the elective programme. Key informant interviews will be undertaken with elective coordinators for the purpose of triangulation. The interviews will be audiotaped and data will be transcribed; a grounded theory framework will then be used to identify and report patterns within the data through comparative analysis.

Results
Learning outcomes and influential factors will be examined, in particular with reference to personal and professional growth, future career plans and the global context of the Malawian healthcare system.

Discussion and Conclusions
Speculation of findings should be limited as this is a pilot study, however, it can be expected that in general participants will have benefited from the elective programme in some aspects of personal and professional development. They may also have developed a greater awareness and understanding of the Scottish medical system, perhaps aiding reflection upon medical practice in Malawi and its context on an international scale.

References
Enhancing students’ communication with ethnic minority patients

M Carroll, S Azam

M Carroll, Centre for Medical Education, Barts and The London, LONDON, E1 2AD, UK

Background and Purpose
Medical students should be culturally competent individuals with well-developed communication skills. In an ethnically diverse area like east London, it can be challenging to converse sensitively with patients with a limited mastery of English. Yet our multicultural student body has expertise in numerous foreign languages and cultures. Could we use this resource to develop an electronic reusable learning object (RLO) that would enable a student to gain a basic grasp of a community language in order to enhance communication with local patients?

Methodology
A fluent Arabic-speaking clinical student developed, over Summer 2012 under tutor guidance, an extensively illustrated language-instruction RLO: “Arabic in 100 Hours”. A virtual patient formed the template, constructed using Riverside software. The basics of Arabic script, pronunciation and culture were followed by digitally recorded greetings and introductions, presented in the context of a doctor-patient consultation. The names of principal body parts and other commonly used words were then introduced in a clinically relevant way. In each case the spoken form was complemented by a written (transliterated) version. Multiple-choice questions were included in order to test recall. The RLO was evaluated by academic staff with appropriate expertise and by selected medical students.

Results
The fully developed Arabic-language RLO required about 100 student-hours’ work, following training on the Riverside software. The virtual-patient template proved satisfactory, once minor technical limitations had been overcome. Academic staff provided largely favourable feedback on the RLO’s structure and content, but they stressed that students should only use a foreign language within their limits of competence. Feedback from students was overall very positive; their evaluation confirmed that the RLO’s interactive features were instructive and engaging.

Discussion and Conclusion
We have developed a culturally sensitive Arabic language RLO that has been positively evaluated by staff and students. A basic grasp of the language in a clinical context should enhance students’ communication with local Arabic-speaking patients, though we need to test this outcome in practice. Some familiarity with the language should also help clinical students taking an elective in an Arabic-speaking country to converse with healthcare professionals there. The basic template used here can be modified flexibly for students to develop RLOs in other appropriate community languages. Indeed, we intend offering this option as a future student-selected component in our MBBS programme. Details will be presented of the structure and content of the RLO and its accompanying documentation.

Reference
Multi-professional Education
Can LinkedIn help fight Malnutrition: Training the health professionals across the world by promoting malnutrition eLearning course through Social Media

S Choi, T Pickup,

S Choi, eLearning Manager, Faculty of Medicine, University of Southampton, Southampton, United Kingdom

Background and purpose
The University of Southampton Faculty of Medicine has developed a range of eLearning materials and made them freely available via the Internet. Among them is a Malnutrition eLearning project¹,², aimed to support the much needed global capacity building in malnutrition management. However, introducing the Malnutrition eLearning course to the relevant health professionals in the field, for example policy makers, educators/trainers, health workers and students in Africa and Asia, has proven to be challenging. After its successful field test in Uganda in December 2010, the course had been introduced to the health communities, agencies and professional bodies through presentations, exhibitions, Masterclass and reports at international events, but bringing it to potential users was slow. From October 2012, the project team started to use Social Media to directly introduce it to the health professionals who may benefit from it but are not possible to reach through international events. This paper describes the steps taken for the course promotion to specific countries and professional groups, analysing failures and successes in bringing the course to them.

Methodology
This is an action research project. To increase the uptake of the Malnutrition course, a focused campaign, using email and Social Media (Facebook, YouTube, LinkedIn, Yookos,Whatsup, Xing, GooglePlus and Orkut), has been carried out. The methods used include joining in professional groups, building up contacts, starting “discussions”, maintaining profiles of the message spread and keeping a reflective diary. To assess the effectiveness of the approaches, a questionnaire was devised and is currently being conducted. The results, with the course enrolment record, interactions in Social Media, email correspondences, feedback and reflective diary, will help determine how each approach has worked.

Results
The enrolment record shows that 60 registered the course in 2011, 87 between January and September 2012, and 1217 from 105 countries between October 2012 and January 2013. The record suggests that promoting an eLearning course through Social Media is a successful strategy. The questionnaire results will help understand how each approach works and determine effective ways to use them.

Discussion and Conclusion
Social Media allows direct contacts with people whom it is not possible to contact otherwise. A systematic campaign using Social Media can provide health professionals across the world the opportunity to access high quality eLearning. Such a campaign is also a cost effective and efficient way of ensuring such material is utilised by those who can really benefit from it.

References
Exploring the Role of Multi Disciplinary Teams in Implementation Science: What will help close the evidence practice gap in cancer care?

TE Robinson, T Shaw, A Janssen

TE Robinson, Research Fellow: Knowledge Translation in Cancer, Faculty of Medicine, University of Sydney, Australia

Background and Purpose
The failure to quickly translate research findings into clinical practice and policy has been consistently noted in the literature and this means patients do not receive optimal benefit from new advances in health care. It is estimated that outcomes for patients with cancer would improve by 30% if new research findings could be applied in a more timely fashion. This is challenging because there is low awareness about implementation science among clinicians and ongoing debate in the literature about methods for translating knowledge in the context of cancer care. The Sydney West Translational Cancer Research Centre relies on multi disciplinary teams (MDT’s) to provide care for people with cancer. It is important that clinicians understand implementation science, how it can be applied and appropriate methodologies that enhance the translation of new research findings. This scoping study explores the role of MDT’s in implementation science and how they can be a vehicle for enhancing research collaborations between clinicians, scientists and researchers in cancer care.

Methodology
An education package and tools for supporting implementation science will be developed in collaboration with multi disciplinary teams involved in providing care for people with cancer. A working party comprised of key stakeholders including MDT leaders, clinicians, scientists and researchers will be convened. This group will assist with identifying activities and infrastructure that support implementation science and will review the education package and resources. A one day workshop will be held with key stakeholders from all MDT's and semi structured interviews will also be conducted across disciplines to explore how research priorities are currently identified within MDT’s, how research findings are disseminated and mechanisms and processes that support the translation of knowledge into clinical practice. System factors, knowledge gaps and assets that build the capacity of MDT's to undertake implementation studies will be identified.

Results (Preliminary)
There is a high level of perceived need among clinicians and researchers for education and tools that enhance the translation of new evidence into practice and that identify strategies for conducting implementation studies.

Discussion and Conclusion
Implementation science (or knowledge translation) is a complex process that involves identifying the type of knowledge to be translated, its perceived relevance, the clinicians involved and the health care setting. Educators need to incorporate into their programs, effective strategies for implementation science that are based on sound theories of behavior change.

References
New Technologies
Utilising Computer Games to Train Future Doctors: Pilot Study On A Multiuser Interactive Online Resuscitation Simulation Game – Will it give us safer doctors?

J Matthan, G Ushaw, R Hubbard

J Matthan, Senior Anatomy Demonstrator, School of Medical Sciences Education Development, University of Newcastle, England, United Kingdom

Background and Purpose

The cornerstone of safety training in the aviation industry - simulation training - has been adopted more recently into medical education as a tool to enhance patient safety, minimise human error and ensure adequate skills level in future clinicians.1, 2, 4 Observed manned simulation programmes now run widely across UK medical schools.3 These require staffing commitments, are tedious to run and are time-consuming. For participants, predominantly medical students, this is a useful educational tool, but an intimidating and stressful learning environment.5 Limited resources also mean that students receive only a bare minimum of sessions, making medical errors inevitable. Modern video game technology can provide an interactive virtual environment for multiple users remote from one another, operating in real time. We propose to create and run a multiuser interactive online resuscitation simulation game, based on the best available gaming world technology, to provide medical students with rigorous resuscitation training through unlimited and unintimidating access to emergency clinical scenarios, in an environment suited to their individual learning needs and more relevant to their learning styles.

Methodology

This is a proposed international pilot research project. The game will be developed as a multicentre effort with input from the local gaming industry, the University of Newcastle School of Medical Sciences Education Development and the Game Engineering Lab as well as collaborators in Finland. Methods include designing and developing a pilot multiuser interactive online environment and identifying a student group to pilot the project. The year group will be randomised into participant and control groups. Participants will be allowed unlimited access to the simulated environment and their performance will be assessed against their hours of usage and evaluation in the manned observed simulation sessions run simultaneously and compared to the control group’s corresponding evaluation. Data will be centrally collected and analysed against medical emergency algorithms inbuilt into the system.

Results

Results from the pilot project will be presented on completion of the project.

Discussion and Conclusions

Developing and designing a modern educational computer game has cost and time implications, which pose as likely challenges, mitigated by the proposed consortium having extensive experience of video game development. Scope for further development into formal resuscitation training courses is, however, virtually unlimited. From the patient safety perspective, we believe that providing students with rigorous training, mimicking the aviation industry, will minimise human error and create safe and confident doctors, who have found their training enjoyable.

References

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Social Engineering in a Technological Environment

J MacDonald, P Wilby

J MacDonald, Senior Lecturer in Medical Education, Medical Education, School of Postgraduate Medical and Dental Education/Wales Deanery, Cardiff University

Background
Ever increasing pressures on training times, work patterns and the need to balance service with learning in highly pressurised health care settings has resulted in an increased use of e-learning to facilitate rapid transfer of skills and knowledge. The Postgraduate School at Cardiff University runs an e-learning programme in medical education at Certificate, Diploma, and Masters Level, which seeks to facilitate learner interactions in the form of discussion groups, and online activities. However there has been little attention focused on the ways in which group composition impacts on technology mediated learning interactions to promote learning.

Methodology
To explore the effects of different group selection criteria on the levels of participation in online group discussions and activities, learners were assigned to groups using a variety of different allocation formulae.

Results
The number and type of online postings made by each student were analysed and then categorised and thematic analysis undertaken. The analysis revealed wide variations in both the quantity and the quality of the online engagements.

Discussion and Conclusions
Deliberate manipulation of the composition of online groups can serve to maximise the degree of interaction, engagement and learning value within this social milieu. It is possible to promote and enable a more fluent and educationally sound level of online discussion and activity to promote learner engagement. Online learning can be enhanced or inhibited by the composition of the group.
Using a role-play simulation in *Second Life* to teach child psychiatric assessment: do undergraduate medical students perceive it as a useful learning experience?

A Vallance, A Hemani, V Fernandez, D Livingston, K McCusker, M Toro-Troconis

A Vallance, Clinical Senior Lecturer, Imperial College London, Faculty of Medicine

**Background and Purpose**

Research into virtual worlds for medical education is embryonic and largely confined to learners interacting with the virtual environment. However, the technology also enables interaction with each other: participants can verbally communicate across virtual space through headsets and non-verbally by manipulating avatars' gestures. This study aims to harness *Second Life* technology to facilitate a role-play simulation. Why develop a child psychiatry role-play simulation on *Second Life*? Firstly, role-play and simulated patients suit psychiatry's emphasis on interpersonal dynamics and complex decision-making. Secondly, simulation helps standardise learning, particularly important given the variable and limited exposure medical students receive in child psychiatry. Thirdly, child psychiatry involves managing risk in patients vulnerable by virtue of age and mental disorder; simulation could provide a standardised learning environment to safely explore sensitive issues and risk. Finally, virtual worlds may hypothetically enhance simulation fidelity, helping students suspend belief they are interacting with a teacher, whilst engage them deeper with the clinical narrative. The study asks whether a role-play simulation on *Second Life* is perceived by medical students as useful. Secondary questions explore: emotional aspects of learning, technology's ease-of-use, and whether the simulation delivers 'good-enough' fidelity.

**Methodology**

Ten penultimate-year medical students were recruited through lectures and the intranet. Teaching and research sessions were conducted in one afternoon in computer laboratories. Participants were randomly split into two teaching sessions. Students role-played as clinician avatars; the teacher adopted a suicidal adolescent avatar. A prior briefing session helped the teacher elicit students' prior understanding. A debriefing session consolidated learning through reflection and feedback. Research methodology involved a questionnaire to explore participants' attitudes. Quantitative data was analysed using SPSS; qualitative data through nominal group and thematic analyses. Educational theories applied include experiential learning and conversational frameworks.

**Results**

Participants reported improvements in various child psychiatry skills/knowledge. Conducting the role-play online was deemed less stressful than interacting with patients, actors or teachers; participants enjoyed the experience. A positive relationship existed between simulator fidelity and utility. Participants were concerned about the simulation's capture of non-verbal communication, but not significantly to impact on utility. Participants queried whether having the role-play online added value over other learning methods, but noted potential for distance learning.

**Discussion and Conclusions**

Overall, *Second Life* delivered a ‘good-enough’ simulation to engage with. Participants rated educational utility and the affective component highly. The potential for distance learning would allow the role-play simulation to operate irrespective of geographical distance and boundaries.

**References**

Using Digistories to challenge student attitudes to Addiction

L Macdougall, A Hearn, A Teodorczuk

L Macdougall, Northumbria Healthcare Foundation Trust

Background and Purpose
Addiction to both alcohol and other drugs creates a large health burden within the NHS. Undergraduate exposure to these patients tends to be opportunistic and sporadic. Furthermore patients with drug and alcohol dependence can lead chaotic lives and may feel threatened by a large group teaching encounter; they may struggle to talk about their often highly personal experiences. We sought to address these difficulties by creating an innovative learning experience for large groups of 30+ students by using a digital story (digistory).

A digistory is a personal narrative normally set to still images which change in reference to the person’s story. Typically it is recorded using a Dictaphone and embedded within a PowerPoint picture presentation. Though described within the medical education field to guide reflection, as yet it has not been evaluated in terms of addressing attitudes of stigma towards patients with mental illness.

Methods
A transdisciplinary group of Gastrointestinal and Mental Health teachers elected to produce a 20 minute digistory of a patient currently dependent on both alcohol and opiates. A patient known to a regional addictions service was approached, consented and recorded. The digistory was shown to the patient prior to being shown to the students. In groups students discussed their previous experiences of addiction and then watched the digistory. To enhance knowledge transfer they were asked to consider a biopsychosocial problem list for the patient. They then reflected on their own preconceived ideas about addictions, reaction to the story and developed a patient problem list. Students completed a written evaluation of the session.

Results
There was consensus that the digistory was a powerful learning tool and that the session was thought provoking. Furthermore they stated that the story’s power arose from the fact the patient was a similar age to them and was local to the area. Students fed back in post-session evaluation that it had changed their perception of those with alcohol and drug problems.

Discussion and Conclusions
We describe the use of a digistory as a powerful teaching tool to generate dialogue amongst learners, enhance knowledge exchange and address possibly misplaced attitudes to a vulnerable patient group. We recommend the use of digistories as a novel and effective teaching method to enable patients to tell very personal stories whilst still protecting their anonymity.

References
Teaching medical students structured documentation through high fidelity simulation- is it effective?

P Chan, IC Baxter, AL Fazlanie, NH Redhead, EM Wood

P Chan, Reader in Medical Education, Academic unit of medical education, University of Sheffield Medical School, Beech Hill Road, Sheffield, S10 2RX

Background and Purpose
Managing critically unwell patients is seen as a defining skill for junior doctors.¹ Clear documentation of all parts of patient management is vital for successful communication between staff members and forms a key part of professional behaviours, as well as being a medicolegal necessity.² High fidelity simulation training is an increasingly important method of learning for both undergraduates and post graduate trainees.² This study aims to investigate the need for formalised teaching on documentation and to develop the use of high fidelity simulation in documentation training.

Methodology
Two high fidelity simulation model scenarios were used based upon sepsis and opioid overdose¹. A mock ward environment and sample case notes ensured the scenarios were as realistic as possible. Fourteen final year medical students were recruited using convenience sampling from Sheffield Medical School. They were each exposed to a simulation scenario and asked to document their actions. A teaching session on correct documentation with a real life case example was delivered and the students then participated in a further (different) scenario and were asked to document their findings. Documentation was assessed against 25 pre-defined criteria based on the Sheffield Teaching Hospitals Deteriorating Patient Pathway. Data was analysed using Prism software.

Results
93% of students improved their documentation (n=13/14). Pre teaching mean score was 13.9/25 (range 8 to 21) and post teaching mean score was 19.0/25 (range 16 to 23). This was statistically significant (p =0.0012 by paired t test). There was an average improvement of 5 marks (range -1 to 11). As the mean improvement is 20% of the total marks, this is a “clinically significant” change and could transform a failing performance into a satisfactory performance in this test.

Discussion and Conclusions
Poor awareness of correct documentation may leave students underprepared for their foundation years². We have shown high fidelity simulation backed up with a suitable lecture-type teaching to be an effective method of enhancing documentation skills at an undergraduate level. This teaching model could improve the accuracy of communication and lead to safer clinical practice.

References
Health Professionals in Cyberspace: Enhancing the Learning of Professionalism in the Context of Web 2.0

J MacDonald, J McKimm, S Gasquoine, S Hawken, M Henning, H Moriarty, T Wilkinson, K Chan, G Rogers, J Hilder

J MacDonald, University of Otago, Wellington

Background and Purpose
There is increasing recognition of the risks posed by Web 2.0 technologies for students engaged in professional courses 1-2. JMacD’s study investigating the use of Facebook by young doctors demonstrated the potential for young doctors to “post” material that is unprofessional 3. Similar concerns have been expressed in the nursing profession 4. While improved education regarding such dangers has been advocated (eg5), a comprehensive literature search has not revealed any such educational interventions targeting undergraduate health professional students. Given the reported lack of congruence between students’ reported concerns about privacy and their online behaviour 6 it is important to explore with students how to effect change in their behaviour. The aim of this project is to work with students to develop and test such an educational intervention.

Methods
This project is being conducted in four stages, the first two of which will form the basis for this paper:-
1. **Needs Analysis** consisting of separate focus groups of nursing and medical students, gathered by purposive. The aim was to explore perspectives on professionalism and to compare the perspectives of future nurses and future doctors. A specific focus was the development of their image of self as a professional engaging in social networking vs a lay perception of self.
2. **Analysis** comprises coding and thematic analysis using HyperResearch software to identify core themes relating to professionalism and professional identity as it pertains to the use of Web 2.0, and to generate ideas for an educational intervention.
3. **Development of intervention and evaluation tools.**
4. **Pilot study of intervention**

Results
Results of the analysis of the initial focus groups will be presented, along with our initial conceptualisation of the proposed educational intervention.

Discussion and Conclusions
The tension between traditional concepts of professionalism and societal changes is exacerbated by Web 2.0 technologies that challenge concepts of privacy and boundaries. This paper will present the views of future health professionals at a formative stage of their developing self-concept as professionals and lead to discussion of optimal approaches to helping tomorrow’s professionals to balance the demands of their professional lives with their expectations of an online social life.

References
Non Technical Skills
Background and Purpose
Early recognition and prompt resuscitation of acutely unwell patients is vital for safe patient care. Junior doctors are frequently the first to the scene in managing these vulnerable patients, but recent research suggests they are not adequately prepared for this task(1). Failure in this initial management of deteriorating inpatients has frequently caused patient mortality and morbidity that could have been avoided(2).

Non-technical skills are cognitive and social skills that combine with technical skills to facilitate safe and effective performance(3). These skills are crucial yet liable to be compromised in the high stress and time critical context of managing an acutely unwell patient. This project seeks to investigate the non-technical skills used by junior doctors in acute care. It aims to develop a taxonomy of non-technical skills and derive a behavioural marker system that could be used as a framework to develop and evaluate educational initiatives in this domain.

Methodology
The methodology of this project has been developed from current understanding in NTS research within aviation and other healthcare specialties(3). 27 Critical Incident Technique (CIT) interviews with Foundation Year (FY) doctors have been completed. CIT uses recollection of a challenging experience with probing questions to explore behavioural aspects(4). Interviews have been transcribed and are currently undergoing template analysis(5), where a priori NTS themes have been developed from the literature. Using this data a prototype taxonomy of skills and behavioural marker system will be developed through a series of workshops with subject matter experts (SMEs). SMEs will include clinicians with experience of supervising FY doctors and those with an understanding of NTS observation and research.

Results
Results of the CIT interviews and output from the SME workshops will be presented. As will the NTS taxonomy and behavioural marker system.

Discussion and Conclusions
NTS frameworks and behavioural marker systems within other high risk domains have been used to develop successful educational projects that improve safety(3). This research will improve our understanding of NTS and the ability to teach, learn and evaluate these crucial skills effectively. It is hoped that this result will have a positive impact on the safe and effective management of acutely unwell patients.

References
Patient Voice
Incorporating patient feedback into medical students clinical assessment: Is it practical, fair or of benefit?

I Hancock, E Clark

I Hancock, Cheltenham General Hospital, Sandford Road, Cheltenham, GL53 7AN.

Background
Patients’ opinions are key to improving service provision and overall patient care. It is important that we ask patients to feedback on “tomorrows doctors” communication and examination skills. The GMC have recognised this need and set out that all medical schools should incorporate patient feedback into the teaching, learning and assessments by 2012. They also advocate that patients and carers who come into contact with students should have an opportunity to provide constructive feedback about their performance.

Method
This study looks at the value of a new patient assessment form used during a clinical exam in Year 3. The form comprises a visual analogue score with quality indicators. It allows patients to assess the students on their listening, questioning and examination skills, as well as providing space for free text comments. To assess its value we used five methods: (1) statistical correlation between marks provided by the patient assessors and components of the summative examination; (2) a focus group with patients to obtain their views; (3) web-based questionnaire to the student body; (4) identification of additional costs associated with the assessment form; and (5) expert opinion by discussion with educationalists.

Results
16 patients assessed 62 students during a musculoskeletal examination. 3/7 invited patients attended a focus group and 32/100 invited students completed the questionnaire. 12 educationalists provided input. There was no statistical correlation between the patient assessment and any other component of the examination. The patients found the form user friendly, enjoyed the experience, and felt they were taking an active role in the examination process. They were keen to provide this feedback in the future as they viewed it as an important service. The patients wanted their feedback to be given to the students, but they did not want their score to contribute to the marks. Conversely, students wanted the patient feedback to contribute to their summative examination. 96.9% of students felt that receiving the completed form would be useful. The additional cost of producing the form was £20, plus 4.5 days of administrative time to scan and email it to students. The educationalists felt that it was valuable to incorporate this patient assessment into the formative examination.

Discussion & conclusion
Patients’ assessment of students’ clinical skills during an examination is feasible with minimal extra resources. It is highly valued by patients in particular. We now use this as one component of formative feedback for Year 3 students.

References
Becoming a Gynaecology Teaching Associate: the woman’s experience

K Savage, P Kinnersley, L Monrouxe, A Tristram, E Metcalf, A Fiander

K Savage, Cochrane Institute of Primary Care and Public Health, Cardiff University School of Medicine, Neuadd Meirionnydd, Heath Park, Cardiff CF14 4YS

Background and Purpose
Professional patients (PP) are increasingly been used in many areas of medical education. The advantages are well described for the students and supervising clinicians but not as well for the PP themselves. Patients involved in medical education have reported an increase in self-esteem and a deeper understanding of their conditions. However, concerns still arise over patient involvement in medical education, in particular when examinations are involved. There is little evidence on the impact that becoming a PP might have on an individual. We do not know what the identity of a PP is or the process of change as PP develop into their new roles.

We have been setting up teaching of the pelvic examination (PE) with Gynaecology Teaching Associates (GTAs) at Cardiff University. GTAs are lay-women with no medical training who teach the PE with their own bodies. They work in pairs teaching three students at a time. The session would start with a demonstration of a role-play consultation of a woman attending for her smear and then demonstrating the PE (one GTA examines the other). Following this the students take it in turn to perform the consultation and examine the GTA. Our GTAs started their training in September and started teaching our students in December. We wanted to understand how they viewed their roles as GTAs, how they developed into this role and to explore their new professional identities.

Methodology
A longitudinal qualitative narrative study was undertaken with two methods. 1). The six new GTAs were given audio-diaries to record accounts of their experiences as they started their training in September. The women were asked to record accounts about their training, learning, teaching and other experiences outside of this work. 2). Focus groups were also held with the GTAs at three points during their training.

Results
Preliminary analyses show that the GTAs’ confidence grew as they made small steps towards learning to teach the PE. They also found their knowledge grew in other health related areas. They saw themselves as becoming advocates for women’s health. Further results will be presented focusing on their identity of a GTA, their motivations to get involved, their motivations during the training and the impact this has had on their lives.

Discussion and Conclusions
Gaining a fuller understanding of the transformation of our GTAs from lay women to professional educators enables us to appreciate the importance of their role and the contribution they make to medical education.

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Learning from carers: evaluating the effectiveness of a carer led education innovation

A Teodorczuk, P Paes, J Dowswell, J Spencer, F Birrell

A Teodorczuk, Consultant Psychiatrist and Honorary Senior Lecturer, School of Medical Education Development, Newcastle University, England

Background and Purpose
Carers often feel marginalised in their interactions with healthcare professionals. Arguably, this stems from ignorance surrounding the value of involving carers in managing complexities of patients with Long Term conditions. Furthermore, working closely with carers is likely to improve patient outcomes as carers offer a unique perspective in terms of understanding the patient. This is particularly important as the ageing population makes communication problems due to dementia and delirium increasingly prevalent. Recognising this, Tomorrow’s Doctors (2009) emphasised the central importance of involving carers in educational processes. Unfortunately delivery of these sessions can prove challenging.

Methodology
With this in mind, a multiprofessional team of medical educators, social workers and carers designed an innovative session, which was delivered to 3rd year medical students at Newcastle University. The aim of the session was to celebrate the role of carers. The objectives were to develop communication skills with carers, understand the contribution a carer brings to the management of a patient with a Long Term condition and reflect on attitudes towards carers. There were four parts to the session based on a modified Kolb learning cycle. These concerned: the value of carers, reflecting on a carer story, planning how students could transfer key messages to clinical practice and finally presenting the findings to the carers by means of a poster.

Outcomes evaluated included quantitative and qualitative student feedback (n=49). In addition students were asked to rate 18 key pre-determined Doctor characteristics pre and post intervention.

Results
Modal and median student ratings were 9 and 8 respectively (out of 10), which made it one of the highest rated parts of the course. Students elevated the importance of the four carer constructs suggesting attitudinal changes. Further free text responses which supported these results will be presented.

Discussion and Conclusions
These findings suggest an educationally robust intervention can effectively promote patient involvement in teaching and address core learning outcomes which are essential to effective clinical working. The results build on the work of Anderson et al who developed a similar intervention to help improve communication with patients with Learning Disability. Arguably, the effectiveness of the intervention is due to creating a social learning place where multiple voices that may not be usually heard are listened to and future doctor identity negotiated.

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The Patient Voice in Medical and Interprofessional Education

ES Anderson, JS Ford

ES Anderson, Senior Lecturer in Shared Learning, University of Leicester, UK

Background and Purpose
Doctors are being asked in clinical practice to work in partnership with their patients/service users, moving away from medical model authoritarian approaches to care. It follows that clinical educators in Higher Education must set aside authoritarian expert positions and embrace opportunities to work as equal partners with service users. This cultural shift is desirable as evidence supports the impact service users have on medical and interprofessional student learning. We have progressed our level of involvement to enable service users to design and deliver a new interprofessional education event working alongside educators. We now report on on-going research to explore how service users might design leading teaching roles.

Methodology
The study employed an exploratory action research design using qualitative methods. Perceptions of all stakeholders were investigated in cyclical phases using focus groups, stakeholder consultation meetings and one-to-one interviews. Data collection was cyclical. At each step findings were fed back to the steering group so that each phase of data collection informed the next, towards the final refinement of ideas. The study used a purposeful sample of service users, students and educators. Two researchers analysed the data using themes coding and sorting principles. Data collection was stopped when no new themes were identified. Triangulation of data took place at the analysis stage.

Results
Data were collected from 40 students, 20 patients/service users (9 in one-to-one interviews; 16 at consultations, several of whom were interviewed) and 4 educators. Two leadership roles, ‘Co-tutor’ and ‘Mentor’, emerged from analysis of combined patient and tutor views. Patients identified benefits for themselves, for student learning and for faculty development. Both patients and tutors identified training and development needs for patients to take on these new roles. Students recognised the value of patients with lived experience leading teaching, but expressed concerns about their preparation for teaching and authority.

Discussion and Conclusions
Funding from the HEA mini-grant series was essential for this educational research. Following this study fourteen patients enrolled to train for these new roles and we are in the process of establishing employment structures. This work places our engagement with patient/service users in education to only level three of the ‘Ladder of Involvement’, ‘growing involvement’. Following the commitment of these patients/service users to add authenticity to student learning a new patient unit will be launched in 2013. On-going research will be required to consider the impact for all stakeholders and the outcomes for students.

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Postgraduate Education
The Katherine Twining Research Network: Time to collaborate

SA Tirlapur, EY Leung, KS Khan & the Katherine Twining Network Committee

SA Tirlapur, Womens Health Research Unit, London

Introduction
Trainee-led research collaborations enable junior doctors to engage in practicing evidence-based medicine (EBM) and participating in high quality studies (1). Research networks serve as a portal for information sharing and along with the use of social media can be a useful method of acquiring knowledge (2).

Objectives
To establish a trainee-led research network in obstetrics and gynaecology in the United Kingdom to improve trainee research literacy and participation in academia.

Methods
The Katherine Twining research network was established by the Women’s health research unit at Queen Mary, University of London and the department of obstetrics and gynaecology at Barts Health NHS Trust.

Results
We have launched the BJOG Katherine Twining Journal Club (#ktjc), which is a structured, evidence-based journal club based on Twitter, in collaboration with BJOG: An International Journal of Obstetrics and Gynaecology. Through the network’s international collaborations, our junior researchers have the opportunity to participate in large, high impact projects and improve their skills and knowledge. We have also successfully piloted an EBM e-learning package in collaboration with the World Health Organisation which will be available for users of the website to complete training modules and gain certification. A website for the network (www.ktnetwork.org) is under development. It will act as an information hub to encompass a wide range of information related to research, medical education and evidence-based practice, including news on research opportunities and practical guides on research planning. In the near future, we plan to incorporate local patient engagement projects, including a project to improve maternal dietary education in pregnancy. We are supported by the newly founded East London Women’s Health charity (ELLY), which aims to support and educate women locally and globally, enabling all women to have access to optimal maternal healthcare.

Conclusion
The use of networks and collaborations are crucial to facilitate large-scale healthcare projects. It is a means for trainees to build links and gain a better understanding of research methodology. Mentoring or an ‘academic support system’ is an important way to provide professional and emotional guidance and support (3). The Katherine Twining Network endeavours to create a strong research base for local, nation and international trainees and clinicians to gain knowledge and form partnerships to deliver high quality research in women’s health.

Funding
Small grants for Educational Scheme 2012, The Learning Institute, Queen Mary, University of London.

References
Using qualitative research and patient safety to review revise and reinvent the regional Foundation Doctor Induction training programme; an exploration of lessons learnt

S Joseph, M MacKay, S Edgar

S Joseph, Paediatric Consultant, Associate Director of Medical Education, the Royal Hospital for Sick Children, 9 Sciennes Road, Edinburgh, EH9 1LF

Back Ground
Regionally the FY1 shadowing experience was inconsistently delivered across hospital sites with no evidence of adaptation to the needs of doctors, patients with no ability to share good practice. The programme aim was to identify and meet the needs of the FY1 doctors whilst balancing the needs of patients and the corporation.

Methodology
Utilising qualitative research methods we conducted a series of surveys and focus groups on the current foundation year group. Institutional requirements were mapped against the GMC domains for good medical practice and the Scottish Patient Safety Programmes primary targets. The programme involved interactive lectures, workshops, simulation training and an interactive module. All sections met the pre-determined learning outcomes, reinforcing practical systems knowledge.

Triangulated qualitative feedback was gained through the following:
1. Online questionnaires for FY1 doctors: pre, immediately post and 6 weeks post induction programme.
2. Written evaluation from skilled lay personnel and year 2 foundation doctors who could provide direct comparison to previous programmes.
3. Data collection on drug errors this year compared with data from the last 2 years
4. Audit on discharge scripts and the use of medicines reconciliation forms with comparative data to previous years.
5. Insulin prescribing errors both inpatient drug kardexes and in outpatient discharge scripts with results from safer use of insulin module.

Results
Thematic analysis with key points of learning outcomes for the corporation will be presented.

Discussion and Conclusion
The implementation and review process of our programme has exposed a series of institutional assumptions about trainee prior knowledge but has permitted multi-professional silos to work together and co-ordinate with teaching programmes regionally.

By arming doctors with greater systems knowledge linked into patient care objectives we can engage and empower our trainees and allow early identification and support of doctors in difficulty.
An education in public speaking should be given to every doctor

T Hansen, P Baker

T Hansen, Academic Foundation FY1 in Medical Education, Royal Bolton NHS Foundation Trust, UK

Introduction
Leadership is a central part of being a doctor. To be a good leader one needs to be able to effectively communicate, to be able to motivate others to a common goal. Oratory is the “the art or practice of formal speaking in public” Public speaking is something which we do every day as doctors, yet it is something which very few have been educated in. Good leadership through public speaking training is vital not only for our everyday practice but for the future of our profession as a whole. A literature search for “medical education” and “public speaking” OR “oratory skills” revealed very few relevant papers, none of which dealt with the need for teaching students for leadership. Knowledge of public speaking is vital to many areas of medical practice. How often have you come out of a meeting thinking there must have been a better way to get your point across? Most medical schools offer some form of presentation assessment, but few offer training in public speaking. We do forms of public speaking daily such as in MDTs, board meetings, and presentations of our own work. All doctors are obliged to teach students yet few have any formal training in how to engage their audience with their speaking style. Likewise when our profession is under the public spotlight doctors must be able to communicate our point of view in a way that allows members of the public to understand our actions. Training for undergraduates upwards will enable our profession to have many individuals who are able to present our cause.

Methods
To this end we have designed an educational intervention aimed at 3rd and 4th year medical students to introduce them to the subject. It will go through the central pillars of oratory skills, with examples to help them understand common pitfalls and tips to improve the memorability of their presentation. Based on feedback we hope to provide a follow up session where students can do short presentations and receive feedback.

Discussion
For post graduate medics there are organisations such as Toastmasters International that enable even beginners to gain practice at public speaking. It would greatly benefit the profession if such courses counted towards continuing professional development. Public speaking is often thought to be something that comes to individuals innately, but this is not the case. Public speaking can and should be taught and practiced.

References
5) Toastmasters International. [accessed 29/1/2013]
6) D Lugan. 6 Minutes Blog. [accessed 29/1/2013]
ARCP debrief as an intervention to improve quality of Foundation Programme e-portfolio evidence for future ARCP assessment

J Davison, N O’Connor, A Williamson

Background
Foundation trainees in the Northern Deanery undergo annual review of competence progression (ARCP) to assess if curriculum objectives evidenced by e-portfolio have been attained. The Medical Education Team (MET) at Newcastle upon Tyne Hospitals NHS Trust identified that at initial ARCP panel, a significant proportion of trainees were judged to have insufficient portfolio evidence to confirm satisfactory progress (Outcome 5).

Aim
To reduce the proportion of Foundation trainees awarded ARCP panel Outcome 5 and improve trainee awareness of how ARCP outcomes are determined.

Methods
- The MET introduced additional feedback to improve trainee understanding of ARCP and portfolio judgements.
- July 2011 – MET offered all Foundation Year 1 trainees individual debrief appointments following ARCP panel assessment.
- Trainee feedback on this process was sought.

Outcome data was collected after Foundation Year 2 ARCP for two annual cohorts and compared between those trainees who received debrief after F1 ARCP and those who did not.

Results

<table>
<thead>
<tr>
<th>Cohort</th>
<th>2010-11 n=75</th>
<th>2011-12 n=75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debrief after FY1 ARCP</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>FY2 ARCP panel outcome</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011 Initial Panel</td>
<td>Final</td>
<td>2012 Initial Panel</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3 (4%)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>5 – insufficient evidence</td>
<td>18 (24%)</td>
<td>0</td>
</tr>
<tr>
<td>6 – FACD awarded</td>
<td>53 (71%)</td>
<td>71 (95%)</td>
</tr>
</tbody>
</table>

Following the introduction of individualised trainee debrief after FY1 ARCP, significantly fewer trainees presented insufficiently evidenced portfolios at FY2 ARCP in 2012 (n=8, 11%) compared with 2011 (n=18, 24%) Chi square p=0.02.

55% (n = 41/75) of Foundation trainees provided feedback on the ARCP debrief process at end of FY1 in 2011. 92% reported being clearer on ARCP process, 99% understood ARCP outcome, 88% said they would factor debrief feedback into FY2 learning plan.

Discussion
The reduction in proportion of trainees awarded Outcome 5 at initial FY2 ARCP panel in 2012 compared with 2011 suggests improvements in portfolio preparation. The change was associated with the introduction of debrief appointments for Foundation trainees by the MET following ARCP in FY1. We recognise that other factors could have contributed to the improvement, such as greater trainee awareness of portfolio, improved supervisor training and differences between trainees between annual cohorts. Trainee feedback on the process was positive, indicating better awareness of ARCP process and willingness to include this in future learning.
“If it was monkeys in the zoo, there’s one person who’s very much… the alpha male”: A metaphorical analysis of medical trainees’ talk about leadership and followership

L Gordon, C Rees, J Ker, J Cleland

L Gordon, PhD Researcher, Medical Education Institute, University of Dundee, UK

Background
Metaphors are part of everyday talk and understanding. How people use metaphors can shed light onto the way in which they think about themselves, others, their relationships and their context⁴. Leadership development is inherent throughout a medical career and there is a need to make visible what leadership and followership within the inter-professional healthcare workplace means to medical trainees, who and what is involved in the process of leadership emergence and what individual, social, contextual and material factors influence this emergence. This paper describes a metaphor analysis of medical trainees’ talk about leadership and followership in the healthcare workplace in order to answer the following research questions: What do medical trainees understand by the terms leadership and followership?

Methods
Underpinned by social constructionism a qualitative approach was employed. 11 group and 19 individual interviews were undertaken with 67 medical trainees throughout Scotland using narrative interviewing techniques to elicit trainees’ experiences of leadership and followership². Discussions were audiotaped and transcribed verbatim and are being analysed using systematic metaphoric analysis³.

Results
Focusing on the leader-follower relationship, preliminary analysis has so far revealed five overarching metaphors associated with the leader-follower relationship including: LEADER-FOLLOWER RELATIONSHIP AS WAR, HIERARCHY, PARENT-CHILD, SPORT and MACHINE. For example, trainees described conflict and battles between individual leaders and followers or between teams involving leaders and followers (war), dominant and submissive personalities or leaders being above and followers being below (hierarchy), followers getting into trouble with leaders or leaders sorting out squabbles between followers (parent-child), high performance as a measure of leadership, coaching behaviours of leaders and leaders’ expectation of the performance of followers (sports team) and leaders running an acute clinical scenario smoothly (machine).

Discussion and conclusions
Previous medical education literature has described similar metaphors relating to student/doctor-patient and student-assessor relationships¹,⁴ but this current work is novel in its approach to understanding medical trainees’ talk about leadership and followership in the postgraduate realm. It gives us valuable insight into the culture of the inter-professional healthcare workplace and how trainees conceptualise leadership and followership within that context. Presentation of this paper at ASME 2013 will provide valuable information to medical educators when considering effective workplace-based approaches to leadership development.

References
2. Rees CE, Monrouxe LV. McDonald LA, Narrative emotion and action: analysing most memorable professionalism dilemmas, Medical Education, 2013, 47(1): 80-96
4. Rees CE, Knight LV, Cleland JA, Medical educators metaphoric talk about their assessment relationships with students ‘you don’t want to sort of be the one who sticks the knife in them’, Assessment and Evaluation in Higher Education, 2009; 34(4): 455-467
Socialisation and enculturation – how we educate for transitions in medicine

WA Watson, PW Johnston

WA Watson, Consultant in Diabetes and Endocrinology, Aberdeen Royal Infirmary, Foresterhill, Aberdeen, UK, AB25 2ZB

Background
Moving from medical school to paid medical employment, and from post to post thereafter, invokes adaptation to change in those moving. This involves adaptations in application of knowledge and skills but also, perhaps more crucially, understanding new environments, the behaviours of the people in these contexts and the expectations of the individual from these others. How new doctors adjust to change is of interest in terms of identifying how best to support adaptation to new environments. Providing appropriate support requires understanding the challenges and needs of doctors changing environment and roles. The aim of this study was to explore the perceptions of, and attitudes towards, transitions in final year medical students, recent graduates and more established Foundation Year 1 (FY1) doctors.

Methods
This was a qualitative study using focus groups which ran 1) at the end of an evening event for final year students and FY1 doctors and 2) within scheduled FY1 teaching. Potential participants were sent information in advance of the event and the voluntary nature of contributing to a focus group made explicit. A semi-structured interview guide was designed based on the wider literature but also encompassing questions of relevance to the local context. The main themes from each group were collated in writing and agreed with group participants. Analysis used a grounded theory approach. Ethical permission was agreed by the local research committee in advance of the study.

Results and discussion
80 students and young doctors took part in 5 focus group discussions. Perceptions of transition among students and doctors were similar, focusing initially on tasks and procedures but developing into feelings about expectations and how these may or may not match preparation and experience. Participants conceptualised the modern health care environment, roles and relationships as confusing, although relishing team working and the satisfaction this can bring. The interaction between students and FY1s was complicated by lack of clarity about who might “do” or “ask to do” and having “permission” to share activity. The potential for social and professional isolation emerged. These observations point to socialisation and enculturation in healthcare environments being important in forming perceptions of value and legitimacy in transitioning professionals. They suggest there might be value in developing these aspects of behaviour in staff who receive, work with and educate students and new doctors to facilitate the processes of transition.

References
Intimate Examination Training in Women’s Health: A Meta-Analysis

A Braddy, SK Chequer, JMN Duffy, S Mylan, M Eyo, R Rolph, R Chenoy, S Hayden, KS Khan, A Cushing

A Braddy, BSc (Hons) Medical Education Student, Women’s Health Research Unit, Barts and The London SMD, Garrod Building, Turner Street, London, E1 2AD

Background and Purpose
Routine breast and pelvic examinations are essential in delivering high quality patient centred care (1). Performing these examinations is challenging due to the advanced technical and interpersonal skills required (2). Different undergraduate and postgraduate training methods exist including lay-person facilitated training, manikin training and video demonstration (3). Many studies have evaluated these strategies within a Women’s Health context with variable results. The objective of this study is to undertake a high quality meta-analysis of published randomised controlled trials (RCTs) and controlled studies providing reliable information to inform patients, clinicians and teachers.

Methods
We have searched CINAHL, EMBASE, MEDLINE, PubMed and the Cochrane Library databases from conception to December 2012 and identified 20 RCTs and controlled studies evaluating lay-women mediated interventions in the delivery of breast and pelvic examination skills compared to any other training method. Two authors are in the process of assessing the methodological quality of these studies, utilising CONSORT criteria (4). Following this data will be extracted by two authors for each study which reports outcome measures relating to technical, communication and interpersonal skills, student anxiety and student evaluation.

Results
Methodological quality will be described fully and presented in a Risk of Bias table. When combining dichotomous results, we will use the numbers of events in the control and intervention groups of each study to calculate odds ratios. When combining continuous data from individual studies that report similar outcomes but on different scales we will calculate the standardised mean difference. We will measure and account for any methodological and statistical heterogeneity.

Discussion
There is no consensus as to the optimal method for delivering training in breast and pelvic examination. When completed, the pooling of results from individual studies will provide a fascinating insight into the efficacy different training methods including lay-women led training in breast and pelvic examination.

References
A study investigating differences in delivery and structure of Academic Foundation Programmes in Medical Education across the UK.

S Roberts, E Bate, E Robinson, A Guha

S Roberts, Senior House Officer and Academic Foundation Year Trainee in Medical Education at the Royal Liverpool and Broadgreen NHS Trust, Liverpool, Merseyside, UK

Background and Purpose
In 2005, publication of the Modernising Medical Careers (MMC) Walport report [1] led to the formation of Academic Foundation Programme (AFP) posts. These aimed to encourage newly qualified doctors into medical management, leadership, education and research. Since 2009, the AFP has grown both in numbers of available posts and in uptake [2, 3]. As yet, the structure, delivery and impact of the AFP have not been assessed. This preliminary study looks specifically at the AFP in Medical Education (AFP in MedEd).

UKFPO guidance regarding AFP content and structure is open to interpretation, providing flexibility for development. This ‘flexibility’ has led to considerable programme variation between Trusts, even within the same Deanery. This study researches the structure and content of current AFPs in MedEd, with the aim of identifying inter-Deanery differences, with a view to improving practice and promoting ‘excellence’ in programme development.

Methodology
After seeking guidance from the National Research Ethics Committee Northwest, it was deemed that ethical approval was not required. Quantitative data was collected using 2 online questionnaires; one for Directors of Medical Education (DMEs) and the other for AFPs in MedEd. Questionnaires were distributed, via email, to DMEs in Trusts running an AFP in MedEd. DMEs then distributed the relevant questionnaire to their AFP trainees. Participation was voluntary and all questionnaires were anonymised.

Results
Questionnaires were sent to DMEs in 37 Deaneries. Thirteen were completed. Sixteen of the questionnaires disseminated to the MedEd AFPs were also completed. Preliminary results suggested that programme themes were similar between Deaneries, offering training in: PBL facilitation, OSCE examination, medical student interviewing, teaching, good medical practice and research skills and methods. Only a limited number of Deaneries encouraged AFP’s in MedEd to undertake a Post Graduate Certificate in Medical Education. The actual programme structure varied considerably between Trusts: regarding programme introductions, Tutor allocation and academic leave.

Discussion
This preliminary work demonstrates variations in Programme structure and design between Trusts, even within the same Deanery. These variations signify this study’s importance and its role in making suggested programme changes, thus promoting united excellence in Programme structure across the UK.

References
Understanding foundation trainees’ experiences of the new supervised learning events

A Dennis, N Kelly, J Cleland, K Mattick, L Monrouxe, C Rees

A Dennis, Postdoctoral Research Fellow, Centre for Medical Education, University of Dundee, Dundee, Scotland

Background and purpose
A recent evaluation of the Foundation Programme raised numerous concerns including the perception that assessments were excessive, onerous and undervalued (Collins 2010). Based on this report, the Academy of Medical Royal Colleges (AoMRC) launched a revised curriculum with significant changes to workplace-based assessments (WPBA). Underpinned by the ethos of patient safety and personal development, the aim of this curriculum is to maximise the trainer/trainee time spent on formative development of workplace learning – so-called supervised learning events (SLEs: AoMRC 2012). While calls have been made internationally for formative learning experiences and feedback, there is no evaluative research to date exploring trainees’ and trainers’ experiences of SLEs.

Method
We are conducting a qualitative study using both group and individual narrative interviews to elicit trainees’ and trainers’ views and experiences of SLEs and WPBAs. Ethics approval across three UK sites (Scotland, England and Wales) has been granted. Data collection has begun using maximum-variation sampling to interview the most diverse sample of trainees and trainers (our target is to interview 36 participants at each site; total n=108 participants). Interviews are being digitally audio-recorded and transcribed anonymously. Framework Analysis begins in February using Atlas-Ti and will determine content- and process-related themes i.e. what participants say and how they say it respectively (Ritchie & Spencer 1994).

Results & Discussion
By the time of the conference we will have completed the preliminary Framework analysis of the study. We aim to present the main themes and patterns across the data such as similarities and differences in views and experiences between participant groups. We will discuss our findings in light of broader medical education research literature, and the implications for educational policy and practice. We will conclude with a discussion about the challenges of moving from a summative to a more formative assessment and provide recommendations on the development of SLEs in the Foundation Programme.

References
The Second Generation and their Degrees of Difference

L Pugsley, L Allery, J MacDonald

L Pugsley, Senior Lecturer in Medical Education, Medical Education, School of Postgraduate Medical and Dental Education/Wales Deanery, Cardiff University

Background
In the early spring of 2005, as a team in Postgraduate Medical Education at Cardiff University we were awarded a research grant from ASME to conduct an independent study into the nature and experiences of the Master’s and Doctoral programmes in Medical Education which were then on offer in the UK. The report identified degrees of difference with substantial variations in the nature and scope of programmes. But this is 2013, policy focus has moved on, medical education is now an acknowledged sub specialty of medical training and has been established in its own right; doctors and other health care professionals are opting for a career in this discipline. The field has expanded exponentially since the 2005 survey, new programmes emerge with frightening regularity and seem to die back with equal monotony, but are standards rising or even maintaining the rather mixed status quo evidenced in our report?

Methodology
This is a proposed multi method approach, replicating the 2005 study, to scope current Diploma and Masters Programmes offered in Medical Education or a related discipline across the UK. The ASME membership is an informed audience and plays a key role in promoting and setting standards. This presentation will provide an opportunity to ask an informed audience to consider such standards.

Results
The data generated in this session will comprise phase 1 of the study and will be incorporated into the research design, providing a framework for informing the second and third phases of the study.

Discussion and Conclusions
The exponential rise in programmes offering qualifications in medical education has yet to be tested for the quality of the product and the ability of the curriculum of each to meet standards which are commensurate with a standard that is acceptable to the medical education community to accredit its membership with the credentials necessary to deliver a quality experience in medical education which is evidence based and theoretically informed. This is a study which needs to be undertaken and its design and direction should be informed by the community it seeks to serve.

References
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Investigating clinicians’ perceptions of the severity of medical error

M Arsanious, I Khan

M Arsanious, Research and Education Fellow, Northampton General Hospital, UK

Background and purpose
Increasingly physicians are asked to report medical error for improvement of patient safety however there are differing opinions amongst physicians as to what constitutes medical error and differences in the extent of background knowledge doctors have regarding what factors contribute to medical error occurring. However no study has investigated whether the perception of medical error varies according to the level of clinical seniority.

Methods
A prospective study comprising of medical students, junior doctors and consultants from one Deanery, was conducted where participants were anonymously assessed on their perceptions in 8 hypothetical scenarios regarding the severity of the medical error that occurs in each scenario using a numerical scale from 1 (indicating no medical error) to 10 (maximum medical error imaginable). Participants were also asked to justify their rating. Each of the scenarios varied regarding the type of error and extent of harm (according to the national patient safety agency definitions) and regarding the contributing factors that led to the medical error (according to a previous study by Elder). A statistician was prospectively involved in study design to ensure sufficient statistical power. The scenarios were reviewed for face validity and pilot tested by a group of external consultants.

Results
213 participants were recruited with near equal distribution in gender (51%:49% F:M ratio) and clinical seniority (medical students 36%: junior doctors 34%: consultants 30%). Statistical significance was shown in 3 out of the 8 scenarios using non-parametric tests, between the 2 clinically inferior groups and consultants (Scenario 1 \(\chi^2 = 11.295\), p-value 0.04, Scenario 7 \(\chi^2 = 8.383\), p-value 0.015, Scenario 8 \(\chi^2 = 6.168\), p-value 0.046). Content analysis was used to analyse the qualitative results which showed five themes across the groups. There was evidence of outcome bias, there was variation in the definition of medical error and harm, and there were mixed opinions regarding the consequences of the errors occurring in the scenarios. Consultants showed greater awareness of the latent errors that contributed to the final outcome and tended to give more technical answers compared to the other two groups.

Conclusion
Our study confirms the findings of previous studies and shows that there is difference in perceptions between consultants, junior doctors and medical students regarding certain types of medical errors but not in others. There is scope for improvement in medical error education across the spectrum of clinicians.

References
Medical trainees’ lived experiences of leadership and followership within the interprofessional workplace learning environment

L Gordon, C Rees, J Ker, J Cleland

L Gordon, PhD Researcher, Medical Education Institute, University of Dundee, UK

Background and purpose
Leadership development is inherent throughout a medical career¹. Historically leadership theory has favoured an individualistic approach but recent theoretical developments propose that leadership involves influence, attention to common goals, and occurs in groups as an interaction between leaders and followers ². Within the healthcare workplace, current leadership development practices and research still tend to focus on individual competence and training despite espousing shared models of leadership. Drawing on modern leadership theory, there is a need to understand what leadership within the interprofessional healthcare workplace means to medical trainees, and what individual, social, contextual and material factors influence this emergence.

Method
Underpinned by social constructionism, a qualitative approach was employed to answer the following research question: What are medical trainees’ lived experiences of leadership and followership? Group and individual interviews were undertaken with medical trainees throughout Scotland using narrative interviewing techniques to elicit trainees’ experiences of leadership and followership³. With the help of Atlas-Ti, initial framework analysis was undertaken to help identify content- and process-orientated themes (i.e. what participants said and how)⁴. The focus of this paper is on content-orientated themes that were identified related to trainees’ lived experiences of leadership and followership.

Results
67 trainees from across Scotland participated in 19 individual and 11 group discussions. Medical trainees described experiences from the perspective of being the leader in some situations but more commonly as the follower. When trainees described leadership from the perspective of being a follower, their experiences often aligned with historical conceptualisations of leadership in which hierarchy and power were used by individuals to dominate and exert power over others. As followers, they described their role as active but sometimes subversive participants in the leadership process. As leaders, trainees described their experiences as emergent and often context driven. In these circumstances, trainees often described having leadership “thrust” upon them or circumstances where they had “stepped forward” into the role. Leadership was also seen to influence team-working. When discussing team-working, trainees most often referred to uni-professional medical teams.

Discussion and Conclusions
This study provides unique insight into how medical trainees perceive leadership and followership in the UK interprofessional healthcare workplace. Presentation of this paper at ASME 2013 will provide valuable information to medical educators about effective approaches to leadership development in the modern healthcare workplace.

References
3. Rees CE, Monrouxe LV. McDonald LA, Narrative emotion and action: analysing most memorable professionalism dilemmas, Medical Education, 2013, 47(1): 80-96
Illuminating education issues linked to clinical protocol training using High-Fidelity Patient Simulation

N Salooja, M Anwar, A Riyat, M Layton

N Salooja

Background and purpose
It is generally accepted that managing patients according to evidence based clinical protocols has the potential to improve patient outcome in addition to standardizing care. Little attention has been given, however, to the most effective ways to educate protocol users. One important area of protocolised clinical activity in our unit is the acute management of patients with Sickle cell disease (SCD). This is the most common and fastest growing genetic disorder in the UK (1). Recent NICE guidance highlights the importance of training in effective pain management and recognition of secondary complications that occur in this setting. This study is evaluating the role of high-fidelity patient simulation (HPS) to implement clinical protocol training to our junior doctors with a view to informing training development within our department and also Nationally.

Methodology
This was an action research project. Methods included focus groups aimed at clarifying key learning outcomes, observation analysis of video-recorded piloted sessions to develop the teaching (simulation and debrief sections) in line with the learning outcomes, questionnaire surveys of participants before and after the training and semi-structured interviews of participants after the training. The latter included discussion of perceptions of overall effectiveness and also investigated which aspects of reality (physical, semantic and phenomenological) (2) were important to each individual for the success of the session.

Results
Results of the scenario design, observation analysis, questionnaires and semi-structured interviews will be presented.

Discussion and conclusion
Meeting specific learning outcomes in a defined time frame using HPS required tight control of the scenarios and debriefing sessions. We made this possible by a high degree of scripting and a highly protocolised debrief which departed from the typical degree of freedom inherent in this teaching strategy. Questionnaire and interview analysis of participants indicated a perception that the teaching was effective and thematic analysis of interview data highlighted semantic reality as central to this combined with highly relevant content for every day life pitched at the correct level. We conclude that it is possible to use HPS to meet learning outcomes in clinical protocol training but our data raises the possibility that other methods of teaching that incorporate a high degree of semantic reality combined with highly relevant content may be equally effective.

References
Methodological Quality of Studies Evaluating Lay Person Intimate Examination Training

A Braddy, SK Chequer, JMN Duffy, S Mylan, M Eyo, R Rolph, R Chenoy, S Hayden, KS Khan, A Cushing

A Braddy, BSc (Hons) Medical Education Student, Women’s Health Research Unit, Barts and The London SMD, Garrod Building, Turner Street, London, E1 2AD

Background and Purpose
Performing intimate examinations well is challenging due to the advanced technical and interpersonal skills required (1). Different training methods exist including lay-person led training, manikin training and video demonstration (2). Many studies have been performed to evaluate the efficacy of lay-person led training with variable methodological quality. The purpose of this study is to evaluate and summarise the methodological quality of these studies.

Methods
We searched CINAHL, EMBASE, MEDLINE, PubMed and the Cochrane Library from conception to December 2012 to identify published studies evaluating lay-person involvement in intimate examination training. Two authors independently selected studies to be included and assessed methodological quality utilising CONSORT criteria (3).

Results
A total of 3,842 abstracts were screened identifying a total of 59 studies comprising of 10 randomised controlled trials (RCTs), 13 controlled studies, 28 observational studies and 8 editorials. No RCTs explicitly stated a valid method of random sequence generation (selection bias) or allocation concealment (selection bias). It would not be possible to blind participants to the training method they participated within (performance bias). The blinding within outcome assessment was undertaken within 6 RCTs (detection bias). Concerns with regards to incomplete data and selective outcome reporting were identified in 6 RCTs (reporting bias).

Discussion and Conclusions
59 studies have been published in peer reviewed journals examining the efficacy of lay-person led intimate examination skills training. On the whole the methodological quality of published studies is poor. Of the published 10 RCTs significant selection, detection and reporting bias exists, casting doubt as to the reliability of the reported outcomes in individual studies. Pooling results within a high quality meta-analysis of published RCT data will quantify the exact risk of basis and better estimate the efficacy of lay-person led intimate examination training. Careful attention to CONSORT guidelines is recommended when planning and publishing any educational RCT.

References
Assessing Foundation Doctors’ knowledge of ionising radiation from common radiological investigations: audit and re-audit

JL Stevens, S Bouri, R Lingam, J Pitkin, A Jethwa, R Soobrah

JL Stevens, Undergraduate Department, Northwick Park Hospital, Watford Road, Harrow

Background and Purpose
The increasing use of diagnostic imaging studies in recent years has given rise to growing fears over the risks associated with high levels of radiation exposures. Many studies have demonstrated poor knowledge about radiation doses of common investigations among physicians and medical students [1,2,3]. The aim of this study was to assess Foundation Doctors’ (FD) awareness of relative radiation exposures associated with common diagnostic imaging procedures and assess the effect of our intervention.

Methodology
FD attending an induction programme at a District General hospital were asked to complete a questionnaire designed to test their knowledge on radiation doses associated with common diagnostic imaging procedures. Other questions focussed on identifying which investigations emit ionising radiation (IR), risk of inducing cancer from a CT scan and most sensitive organs. One month later, the trainees were given a lecture on the subject and also given relevant handouts. The same questionnaire was administered three months post intervention.

Results
58 FD from 17 medical schools participated in the initial audit and 41 completed the post-intervention questionnaire. A small proportion of trainees were unaware which investigations involved IR – 10% and 7% believed abdominal radiographs and CT scan respectively didn’t involve IR, while 12% believed MRI emit IR. However, the total correct responses for this section of the questionnaire improved from 82% to 89% post-intervention. With regards to radiation doses, total correct responses increased from 49% to 59% post-intervention. 52% had received previous teaching on this topic during their undergraduate training; subgroup analysis revealed that correct responses were not higher in this group. Initially, 36% of trainees correctly identified the lifetime risk of inducing cancer from an abdominal CT; post-intervention, this figure rose to 68%.

Discussion and Conclusions
Since FD are responsible for organising and ordering various diagnostic imaging studies, it is crucial that they are aware of the radiation exposures associated with these investigations. Our results demonstrate a poor knowledge of the risks and levels of IR involved in commonly requested investigations among FD. Simple interventions such as lectures and handouts can be given during induction courses to raise awareness among FD and other future referring doctors. These shortcomings also highlight the need to cover important aspects of radiation protection in the undergraduate medical curriculum.

References
By incorporating the education of medical students and trainees in outpatient clinics, is the patient experience enhanced and their quality of care improved?

M Slade, D Pearson

M Slade, Academic Clinical Fellow in Medical Education & Core Medical Trainee, Yorkshire Deanery

**Background**

There is an assumption among educationalists, trainers and trainees within medical education that environments in which teaching is commonplace provide better standards of care for patients.

This has been cited to be due to a number of possible factors. Specific examples from the literature include:

- Being a primary care training practice is an independent predictor of higher quality as measured by the Quality and Outcomes Framework scores
- Teaching practices have fewer job vacancies and provide higher quality care
- Patients believe teaching consultations improve care due to time spent and trainer expertise

However, not all quality measures enable a straightforward correlation to education being a determining factor in a practice achieving standards. Additionally, the volume of literature surrounding secondary care is less and not as indicative of a link between education and higher quality of care. There are few papers on patients’ experience of teaching clinics in the outpatient setting of secondary care and most concentrate on appointment length and patient satisfaction rather than quality of care provided.

Research into the impact of training on patient experience and care is vital as, whilst postgraduate training needs to defend itself as worthy of investment, NHS care providers are required to illustrate to their stakeholders that they collect appropriate feedback from patients. More teaching will need to take place in the outpatient setting as length of stay shortens and bed numbers are reduced.

**Methodology**

1. A systematic review on patient experience in training outpatient clinics and the quality of care received.
2. A question set will be developed and used in the outpatient environment to gain preliminary data on:
   - Factors that influence whether an interaction with a trainee is positive for the patient
   - The predictors of quality of care in the outpatient setting
   - The effect of training and teaching on patient care
   - Whether patient and carer views on their experience vary depending on the specialty visited and the training grade of the trainee?

**Results & Conclusions**

Early results from our pilot data will be presented, outlining the patient perspective on education at various levels in the outpatient department and how they feel it affects their care.

**References**


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Mentoring for Severn Deanery Obstetric and Gynaecology Trainees

C Bond, S Coleridge

C Bond, Specialty Trainee in Obstetrics and Gynaecology, Southmead Hospital, North Bristol NHS Trust

Background
Mentoring provides personal and professional support allowing an individual to develop knowledge, skills, attributes and enhance their practice\(^1\). The Royal College of Obstetricians and Gynaecologists acknowledges that a mentor can be an important source of advice and support for trainees\(^2\).

Methodology
The Severn mentoring scheme for trainees in obstetrics and gynaecology was initiated in 2010. The scheme matched new Specialty Trainees entering our training programme with more senior trainees within the same hospital. We aimed to provide training in mentoring and to provide trainees with the opportunity to learn mentoring skills and become mentors themselves. C Bond and S Coleridge matched trainee pairs and set up their initial contact via email, asking the pairs to arrange a face to face meeting. We recommended meeting every few months, taking some notes for the mentees private use, and sent reminder emails every four months to encourage mentors and mentees to meet.

Results
We sent a survey monkey link to all trainees who had been involved in the mentoring scheme from 2010 to 2012. We had a 55% response rate. 67% of mentees who responded found the scheme useful. 70.6% of those who responded intended to continue their mentee-mentor relationship for at least the next 12 months. 100% of mentees who responded would like to become a mentor in the future.

Discussion and Conclusions
Trainees felt positively about the mentoring scheme. The majority of those who responded were keen to continue their mentoring relationship for the next year and beyond. We are keen to build on the initial success of the mentoring scheme and provide guidance and support to mentors in the form of a webpage.

References
Exploration of Foundation doctors concepts of mentoring in a near-peer mentoring scheme

H Willoughby, Z Morris, A Grant, A Edwards, L Monrouxe

H Willoughby, Institute of Medical Education, School of Medicine, Cardiff University

Background and Purpose
Concepts of mentoring are varied and have been adapted for application in the medical setting, including within UK postgraduate training.(1) Medical education research evaluating mentoring as an educational intervention is mostly limited to questionnaire based studies. It is focused on outcomes rather than exploring the in depth experiences of the mentors and mentees. (2, 3) Since August 2008 trained volunteer Foundation year 2 (F2) doctors, working in a District General Hospital in Wales have acted as mentors for Foundation Year 1 (F1) doctors. They provide mentorship for career and work based support. Our study aims to explore in depth the mentoring experiences of these Foundation doctors.

Methodology
A longitudinal qualitative narrative-based study. Data collection was through group interviews and audio diaries. Stage 1: group interviews with a new cohort of F1 mentees and F2 mentors, these were recorded and transcribed. Transcripts were analysed by a group of four researchers and were coded inductively. A thematic framework was developed. Stage 2: a self selected sample (n=4) provided recorded audio diaries of their experiences of mentoring interactions and life as a junior doctor. Transcripts of these diaries were analysed using narrative analysis and expanded the thematic framework. Stage 3: follow-up focus group interviews will be conducted in April 2013.

Results
Three major themes have emerged from initial thematic analysis of the focus group data. 1. Concepts of mentoring; including explicit and implicit definitions. 2. Motivations for mentoring, both intrinsic and extrinsic. 3. Practical considerations of a mentoring scheme. Ongoing exploration of participant’s narratives from audio diary and further focus group data will further expand the thematic analysis.

Discussion and Conclusions
This study explored in depth experiences of the mentoring process in addition to outcomes, practicalities and motivations for mentees and mentors. Mentoring was seen as an interactional interpersonal relationship where they were empowered in the process. Despite explicit mentoring training, participant’s concepts of mentoring differed from those defined in the medical mentoring literature. (1) These experiences and variations in conceptions of the role of mentoring will allow us to explore how to optimise mentoring of doctors both in this scheme and beyond.

References
21/01/2013.
Foundation Survival Skills: Using in-hours time to bridge the gap in F1 out of hours experience – A follow up

J Chalmers, E Grove, J Hacon, H Saxby

J Chalmers, Gastroenterology department, Musgrove Park hospital, Taunton, UK

Background and Purpose
The introduction of the European Working Time Directive has resulted in trainees getting less out of hours (OOH) experience 1. The majority of acutely ill patients are initially assessed by junior doctors, and recent mortality data showed that one third (38%) of cardiac arrests in acutely ill patients could be avoided 2. Studies have shown that trainees feel under prepared and unconfident in the management of acutely ill patients 3, a requirement outlined in the foundation curriculum 2012. This is a follow up study to Survival of the fittest 2012 4 in which a course was developed. The purpose of this study was to provide conclusive data of improvement in Foundation Year 1 (F1) knowledge and confidence in management of common medical conditions using the ‘Foundation Survival Skills (FSS) course’. The specific aims of the course:

a) Delivered within normal working hours
b) Using realistic clinical scenarios
c) Reproducible at other trusts

Methodology
A FSS course has been previously designed to address common emergency presentations which trainees lacked confidence in managing 4. Following feedback from the initial study the course was updated and streamlined, including addition of local and national policies and guidelines. A pre-course knowledge quiz was undertaken to evaluate F1s prior knowledge. Ten, 1 hour teaching sessions covering separate acute medical emergencies were delivered on a weekly basis. Each session concluded with a re-evaluation of knowledge using the same questions as the pre-course quiz, followed by questions and feedback.

Results
Sixteen multiple choice questions were asked in total, covering common clinical scenarios. The Pre-course data showed the correct answers varied from 5% (management of upper GI bleed) to 82% (Shortness of breath), with a mean of 43% correct. In Post-course data there were 100% correct answers in 12 questions, with a mean of 95% correct and a mean improvement in 52%. The more general outcomes of the course:

a) F1s feel that their organised teaching covers curriculum requirements but fails to deliver practical clinical scenarios
b) Unanimous positive feedback was received by F1s
c) This course has been recognised by the teaching academy and is now incorporated in the 5th years ‘preparation to practice’.

Conclusion
The FSS course provides regular, targeted, in-hours, teaching course which addresses the knowledge gap that F1 have expressed, while improving confidence and competence in managing OOH emergencies. A reproducible course can facilitate final year medical students as they prepare to practice.

References
2. The National Confidential Enquiry into Patient Outcome and Death (NCEPOD). Time to Intervene. 2012. UK
Investigation of the use of Multi Source Feedback (MSF) as a work based assessment tool in one deanery

J Brown, K Lowe, P Murphy, J Fillingham, M Bamforth, R Jones, N Shaw

J Brown, Reader, Faculty of Health, Edge Hill University, Ormskirk, UK

Introduction
There is evidence to suggest that multi-source feedback (MSF) assessments are valid and reliable as long as a sufficient number of respondents complete and submit the questionnaire although there is some debate on the number of assessments required. It has been suggested that the relationship of assessors to the trainee and how they were allocated has no significant influence on the reliability of results. However there remain concerns that MSF scores may be influenced by the selection of assessors by the trainee themselves. This study therefore aimed to compare Specialist Trainees’ hand selected MSF assessor scores with those made by their Clinical Supervisors.

Methods
Specialist Trainees (STs) who gave their written consent to take part in this study were asked to hand out two mini-PAT questionnaires. One was given to a clinical colleague of their choice (hand-chosen assessor) and the other was given to their clinical supervisor, each participant therefore generating two responses. Each assessor then returned the completed mini-PAT questionnaire in a stamped addressed envelope to the research team. Each questionnaire was coded for each ST so the research team could collate the completed questionnaires in pairs. The questionnaires were also colour coded to differentiate Clinical Supervisors (green form) from the hand chosen assessors (yellow form). Statistical analysis was carried out using the Wilcoxon rank sum in SPSS 16.0 test to determine any differences in responses between clinical supervisors and hand chosen assessors with respect to the total assessment scores for each of five domains on the mini-PAT (good clinical care, maintaining good medical practice, teaching, training appraising and assessing, relationship with patients and working with colleagues).

Results
Forty pairs of mini-PAT questionnaires were analysed. Hand chosen assessors’ ratings were significantly higher than those for clinical supervisors with respect to the domains of: ‘good clinical care’ (p<0.01), ‘good medical practice’ (p<0.05), ‘teaching and training’ (p<0.01), ‘relationship with patients’ (p<0.05) as well as for overall impression of the trainee (p<0.05). There was no difference between assessors with respect to the domain of working with colleagues.

Conclusion
There is a systematic difference in the assessment scores for trainees in MSF between clinical supervisors and hand-chosen assessors, the former scoring trainees more harshly. This implies that knowledge of the distribution of types of assessor is important when interpreting MSF, in particular perhaps, when there is a disproportionate number of supervisors or senior clinicians in the group of assessors.
Professional Identity
The development of doctors’ professional identity through self-stereotyping

B Burford, HES Rosenthal

B Burford, Senior Research Associate, Centre for Medical Education Research, Durham University, Durham, UK

Background and Purpose
The process of becoming a doctor involves the development of professional identity. This may be viewed as the categorisation of oneself as a member of the professional group ‘doctors’ ¹, based on perceived stereotypical attributes of that group. The implication of this is that self-stereotyping, that is the extent to which an individual associates him or herself with descriptors of a group, will be congruent with overall, holistic, identification with the group. This pilot work explores the relationship between self-stereotyping and identification, and how both may change in the early years of medical training.

Methodology
A questionnaire was completed by first and second year medical undergraduates, at the beginning and end of the academic year. The questionnaire contained items on self-stereotyping and social identity. Self-stereotyping was operationalised as the correlation between respondents’ self-ratings against 47 attributes, and the extent to which those attributes were felt to be typical of the groups ‘doctor’ and ‘student’ ². Other scales ³, ⁴ measured the degree of identification with those groups, and the importance of those identities. Data on demographics and career intentions were also collected.

Results
Initial analysis indicated that both year 1 and 2 medical students identify, and self-stereotype, more strongly as doctors than they do as students at the beginning of the academic year. However, correlations between identification and self-stereotyping measures for ‘doctor’ were small to moderate.

Further analysis of any changes in these measures at the end of the academic year, and relationships with demographics and career intentions will also be discussed.

Discussion and Conclusions
The data suggest that professional identity is strong early in medical education, but may not be linked to a coherent stereotype. It may be that medical students’ stereotypes of doctors are limited, and still forming, even though their subjective identification with the group is strong.

Educational implications of the results, and research questions arising from them, will be discussed. The development of professional identity is conceptually linked to the development of professionalism, because a group stereotype may define the norms which constitute professional behaviour. Considering how and when medical students’ stereotypes develop may allow learning experiences to be linked explicitly to the development of professional identity, and the establishment of desirable professional norms.

References
Professionalism
How would medical students manage their own health?

S Ross, K Hanlon, J Cleland

S Ross, Clinical Senior Lecturer, University of Aberdeen, Foresterhill, Aberdeen

Background and Purpose
Illness is an important cause of difficulties experienced by doctors, who can struggle to seek appropriate health care, and may often self-treat. We have previously shown that medical students' intentions and underlying beliefs are similar to those of doctors1. The data indicated that the development of beliefs and behaviour in relation to illness/disability occur early, possibly even pre-medical school. It is crucial to identify when these views are formed so that interventions which support appropriate responses to illness can be introduced in a timely manner. We designed a questionnaire for this purpose.
The aim of this study was to a) report on illness beliefs and attitudes towards seeking healthcare in first year medical students at one medical school as a first stage in a longitudinal study, and b) test the reliability of a questionnaire designed to identify these beliefs.

Methodology
The questionnaire was underpinned by the Theory of Planned Behaviour2, a model which is clearly-defined, parsimonious and has utility in predicting a variety of behaviours, including health-related behaviours3 and health professionals' behaviours4, and based on data from our previous qualitative study1. First year University of Aberdeen medical students completed the questionnaire at two separate time points. Data analysis was undertaken using SPSS version 20.0. Tests of reliability were performed (Cronbach’s alpha and Wilcoxon signed ranks). Descriptive statistics, Pearson’s correlations and Wilcoxon analyses of questionnaire items were also undertaken.

Results
103 of the 174 participants completed both questionnaires. Analysis of the second questionnaire showed that most students would attend their GP whilst students (70.6%) but less intended to once qualified (51.6%). Similar trends were seen in attitudes to undertaking self-care (students 12.6%, doctors 35.2%). A substantial proportion of the sample said they would self-prescribe once qualified (38.5%). Test-retest analysis showed a Cronbach’s alpha of 0.9. Wilcoxon signed ranks found only two of the twenty-six items showed any significant differences across test-retest.

Discussion and Conclusions
Our data indicate that new medical students believe that they would act differently in response to illness once qualified, and substantial proportions report planning inappropriate illness-related behaviour. We found that our self-completed illness belief questionnaire has high levels of reliability. This study supports the hypothesis that attitudes towards health seeking behaviour and self-prescribing are partially formed prior to commencement of medical training. Longitudinal work is ongoing to assess how illness-related beliefs develop in medical students.

References
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Selection
What makes an ‘ideal’ medical school entrant? The views of academics, clinicians, laypersons and current medical students involved in the admissions process

E Clapham, C Fairhurst, J Henderson

E Clapham - Academic F2 in Medical Education Hull York Medical School, University of York, Heslington Road YORK YO10 5DD

Background and Purpose

Personal statements and interviews are used in the selection of candidates for medical school admission to assess students’ non-cognitive abilities. Multiple-mini interviews may focus on specific qualities such as empathy or organisation. Maudsley’s work gives some insight into doctors’ non-cognitive skills and Powis alludes to some potential non-cognitive attributes needed in medical school entrants. Selection validity continues to be criticised for lack of correlation with successful outcome in the undergraduate course. Unanswered questions remain regarding which non-cognitive factors should be sought and their relative importance. Is there an ‘ideal’ candidate and what do they look like? This study aimed to identify valued qualities for students applying to undergraduate medical school courses.

Methodology

All UK medical school websites were accessed to identify the qualities that the school stated they were seeking in their applicants. A thematic analysis was undertaken, generating 9 recurring themes. All individuals involved in HYMS’ admissions processes (academics, clinicians, lay-persons and students) were asked to participate in a survey-based project. Participants allocated 100 points between the 9 identified qualities to give both rank and weight to the qualities.

Results

Results were analysed from 155 completed surveys to identify the qualities most valued by the four different interviewer groups.

Discussion and Conclusions

Participants differentiated clearly between different qualities. In this survey the most highly ranked quality for a medical student was good communication skills, followed by motivation for and commitment to a career in medicine. Of the nine chosen qualities, leadership and responsibility, and the ability to tolerate ambiguity and uncertainty were rated as the least important. Surprisingly capacity for empathy, which features highly on medical schools’ admissions’ pages was ranked only sixth. Resilience, a very difficult quality to assess for, was more highly rated than might have been expected, echoing Sokol’s recently expressed view. Kruskal-Wallis testing indicated subtle differences in the way that different professionals regard some of these qualities; clinicians and academics tended to agree with each other, whilst students showed more agreement with laypersons. This is a complex area to study; this study provides some interesting data regarding the qualities considered important for the “ideal” medical student. This is of relevance to the design of selection processes aimed at eliciting desirable non-cognitive qualities in applicants to medical school, and perhaps also differentiating between qualities we would wish to see at application, as opposed to those we would encourage students to develop.

References

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Evaluation of the Birmingham Multiple Mini Interview (MMI) for medical student selection

C Taylor, K Green, A Spruce

C Taylor, Senior Lecturer in Medical Education (Assessment), University of Birmingham, U

Background and Purpose
The University of Birmingham Medical School has changed the way in which it selects its future students, using a Multiple Mini Interview (MMI) instead of a ‘traditional’ 15 minute semi-structured interview. During the MMI, approximately 1,300 applicants will rotate around four ‘stations’, each lasting six minutes. The four stations test different skills and abilities required of medical students: interpretation of scientific data, working on a collaborative task, motivation for the medical course and coping & ethical behaviour. The purpose of this project is to evaluate the MMI, with the following research questions:
1. Do applicants and interviewers consider the MMI an acceptable method of selection?
2. Is the MMI a reliable method of selection?
3. Is MMI performance correlated with previous academic achievement or applicants’ personal characteristics such as gender?
4. What are the resource implications of using the MMI?

Methodology
The main data sources for the evaluation are questionnaires completed by applicants and interviewers and MMI score data. The questionnaire data are used to evaluate acceptability in terms of fairness, appropriateness and impact of MMI experience on the likelihood of accepting an offer. Generalisability Theory will be used to consider the reliability of the MMI. The questionnaires seek consent from applicants to link their personal characteristics and previous academic achievement to their MMI scores, which will enable any determinants of MMI scores to be identified. The resources required to run the MMI at Birmingham will be identified and costed using an ‘ingredients’ approach and compared to a similar costing of the ‘traditional’ interview method.

Results
The MMI is currently in progress and all applicants will be interviewed by the end of March 2013. Analysis of the questionnaire, score and resource use data will then be undertaken in order to address the research questions identified above.

Discussion and Conclusions
The results of this study will be considered in relation to what is already known about the use of MMIs for medical student selection, both in the UK and internationally. For applicants who subsequently enrol at Birmingham, a longer term study will investigate the predictive validity of MMI scores in terms of medical school performance and whether there is any evidence of differential prediction (i.e. different correlations between MMI and Medical School performance for different groups of students).
Does experience of public performance relate to students’ results in the OSCE examination?

P Chan, M Chan, C Woodley, M Jennings, N Bax

P Chan, Academic Unit of Medical Education, University of Sheffield Medical School, Beech Hill Road, Sheffield S10 2RX, UK

Background
Personal qualities have been shown to affect student’s exam results, with extroversion becoming more prominent in clinical exams in the later student years. (1) We studied the effect of experience, and level, of public performance in music, drama, dance, sport, and debate (MDDSD) at the time of admission to medical school as a predictor of student achievement in their first clinical OSCE examination.

Methodology
The entire year cohort (n=265) sitting their third year clinical exam in 2011 were studied. Their OSCE results were analysed as overall results, and separately as results from history stations, and from clinical examination stations.

Pre-admission statements made at the time of application were available in individual student files. Following ethical permission, these statements were coded by a researcher (MC) with no prior knowledge of these students for their own stated achievements in the level of public performance; participation in each MDDSD area was scored 0-3, where 0 was no record, 1 = leisure time activity, 2 = activity at school or local level, 3= activity at district, regional or national level. Sample statements were analysed by a group of senior staff experienced in admissions (CW, MJ, NB), and a level of agreement reached for scoring various levels of performance. These scores were correlated to OSCE results by Pearson produce moment correlation, linear regression and t-test.

Results
There was a bell shaped distribution in public performance score in this cohort. There was weak correlation (coefficient 0.2) between overall results and overall performance score. There were no significant correlations between any subgroups of OSCE results such as history stations only or examination stations only and performance scores. There was a non-significant trend for students who failed the OSCE exam to have lower performance scores than students who passed or achieved excellent results. (p=0.50, 0.46 respectively)

Conclusions
We found no compelling evidence that experience of public performance and level of excellence in the MDDSD areas were related to OSCE results. The “validity coefficient” in predicting achievement in OSCE examination is low. These areas are often seen as enrichments to secondary education, and high achievements used as surrogates for desirable qualities in demanding courses such as medicine, and may be important for selection based on character and personality. Other factors seem more important in accounting for variability in OSCE results.

Reference
Investigating the acceptability of Multiple-Mini Interviews (MMIs) at Dundee

M J Rodgerson, A Husbands, J Dowell

M J Rodgerson, Medical Student, University of Dundee, Scotland, UK

Background and Purpose
Since 2009, Dundee has used multiple-mini interviews (MMIs) to select candidates for our undergraduate medical programme\(^1\). Based on Harden’s Objective Structured Clinical Examination (OSCE), candidates rotate through ten seven minute stations and undertake a mixture of tasks with role-players, interactions with actors and one-to-one interviews\(^1,2\). Following the success of the medical MMI, an MMI was introduced for our dental programme in 2012. Here, we present applicants’ views of both the medical and dental MMIs, with the aim of exploring candidate perceptions of each.

Methodology
This study was undertaken by a third year medical student as part of a Self-Proposed Module. Data was collected using a questionnaire which deployed a mixture of 5-point likert-type questions as well as open questions requiring free text responses. Invitations to partake were issued after the MMIs by email (but before decisions were made). The survey collected no candidate-specific information and was delivered via the website www.surveymonkey.com.

Results
The response rate represented 75% of those interviewed for each course, with 451 and 224 responses from medical and dental applicants respectively. Overall, MMIs were deemed more suitable than traditional interviews by the applicants of both courses with 94% of all applicants “agreeing” or “strongly agreeing” that “the MMI is a suitable method for assessing potential as a medical/dental student.” Only 45% of those who had experienced a traditional interview indicated that they thought this suitable. The MMI was also found to be more favourable by both groups in terms of enjoyment, stressfulness and fairness. 80% of candidates took the optional opportunity to leave a free text comment indicating that they believed the MMI to be a fair assessment, with many (40%) referring to the opportunity to make impressions on multiple assessors. Both groups indicated that the most enjoyable stations were those focussing on the UCAS personal statement. Medical applicants indicated a preference for the interactive stations over the other one-to-one interview stations, whereas dental applicants found the more traditional stations more enjoyable than the interactive tasks.

Discussion and Conclusions
Our data suggests the MMI is acceptable, in terms of enjoyment, stressfulness and fairness. It is well received by both medical and dental applicants, though differences exist regarding what makes an MMI acceptable to the two groups of candidates.

References
The Performance of MMIs in the UK context: 4 Years of Experience in Dundee

A Husbands, J Dowell


Background and Purpose
Multiple Mini Interviews were piloted in Canada in 2004 and have gained popularity worldwide. In 2009 Dundee medical school commenced a 10-station MMI as the primary admissions tool for assessing non-cognitive skills. After interviewing and admitting over 2000 and 550 candidates respectively over four years we would like share our findings on reliability, validity, Multifaceted Rasch Model (MFRM) ‘fair scores’, student-staff scoring and postcode socio-economic class (SEC) analysis.

Methodology
Applicants were selected into medical school using a multi-staged process, with measures derived from the Universities and Colleges Admissions Service (UCAS) form (academic achievement, medical experience, non-academic achievement and references), UK Clinical Aptitude Test (UKCAT), and ultimately an MMI. Post-code data was used to determine the relationships between pre-admissions tools and socioeconomic class. A double marking exercise was used to assess the inter-rater reliability of staff and student scoring. Cronbach’s alpha was used to assess reliability. Pearson’s correlations and multiple regression were used to test for significant relationships and predictive associations between pre-admissions tools and medical school examination scores for three cohorts, with N ranging from 121 to 150. MFRM was used to adjust candidate scores for examiner leniency and stringency.

Results
Cronbach’s alpha reliabilities were on average .70. Inter-rater reliability between student-staff scoring was high, with students making more use of the full range of the rating scales. MMI scores showed no significant relationship with postcode-derived SEC. Statistically significant correlations of admissions tools and assessment scores ranged from .18 to .37 and .23 to .57 after correcting for range restriction. MMIs scores showed significant positive correlations in each cohort and year. Multiple regression analyses confirmed that MMIs remained the most consistent predictor of medical school assessments. Average statistically significant validity coefficients for raw MMI and MFRM adjusted fair scores were .277 and .284 respectively. UKCAT and UCAS scores showed limited predictive evidence.

Discussion and Conclusions
The MMIs’ reliability, student-staff scoring patterns and lack of SEC bias were encouraging. Predictive validity findings were positive. The MMI was the most consistent predictor of success in medical school across three separate cohorts. Fair score validity coefficients were generally larger than those of domain-totals, suggesting that MFRM adjustments are worthwhile. This data contributes to growing evidence base suggesting a worthwhile new selection instrument is emerging. Further research is needed to investigate the specific non-cognitive skills measured.
Recruitment and retention into obstetrics and gynaecology: what are the influencing factors and how have they changed with changes in postgraduate training?

JLD Currie, M Huggins, SM Whitten

JLD Currie, Specialty Registrar in Obstetrics and Gynaecology, Homerton University Hospital, and Junior Careers Officer, Royal College of Obstetrics and Gynaecology

Background and Purpose
A survey into attitudes of students and junior doctors towards a career in Obstetrics and Gynaecology (O&G) was carried out by the RCOG in relation to recruitment problems in 2005. Since then, considerable work has been done to improve recruitment, with success. However, many changes have happened both in undergraduate and early postgraduate training. This survey sought to answer how O&G is currently perceived by medical students, Foundation doctors and Specialty Trainee Years 1-3 (ST1-3) as a career choice, and what are the current attracting and deterring factors, compared with the previous survey.

Methodology
An anonymous electronic survey was designed including the same questions and response options as in the previous survey. After piloting, this survey was distributed electronically via contacts with medical schools, Foundation schools and the RCOG trainees list during May 2012. Approval was gained from the RCOG.

Results
There were 2073 responses: 1114 medical students, 666 Foundation doctors and 293 ST1-3 trainees. 73.1% (1465/2004) respondents were female. Of medical students, 38.4% were very / quite likely to consider O&G as a career, whilst of Foundation doctors, 30.1% were very / quite likely to consider it. ST1-3 trainees were mostly certain about staying in the career, although 14.6% expressed some uncertainty.

The most positive features about a career in O&G for all three groups were interest in the specialty itself, a broad choice of activities within specialty, and a mixture of medical and surgery. The most negative features about a career in O&G were litigation, the greatest concern for all three groups, followed by concerns about working hours, shift working patterns, and working conditions as a consultant or trainee.

Although the overall distributions for the three groups were similar, when the groups were broken down according to career intentions the negative factors varied. The greatest negative factor for both medical students and Foundation doctors who were very unlikely to consider a career in O&G was bad undergraduate experience. Foundation doctors considering a career in O&G also highlighted getting a specialty training number as a negative factor. These results were comparable with the previous survey.

Discussion and conclusions
Despite improvements in recruitment since 2005, students and junior doctors continue to perceive work-life balance and litigation as negative features of the career; bad undergraduate experience is a particular issue with those who decide against a career in O&G. This has implications for teachers and trainers in O&G.

References
Concurrent validity of medical school interviews

P Garrud, B Scammell, C Green, F Patterson

P Garrud, Assistant Director Medical Education, School of Medicine, University of Nottingham, UK

Background and Purpose
Medical schools across the UK use a variety of methods to assess personal qualities of prospective medical students – personal statements, interviews, multiple mini-interviews (MMIs), questionnaires, and assessment centres.

Nottingham and Birmingham medical schools have three forms of interview for different medicine programmes: a 15 minute, semi-structured interview, and two forms of multiple mini-interviews. The literature has clearly established the greater reliability and generalizability of structured interviews over unstructured, and of MMIs over structured interviews.1,2,3

However, there is virtually no published research on the validity of medical school interviews in the sense of the validity of what they are designed to measure (i.e. concurrent or construct validity). This is an initial study of concurrent validity of the interview formats used in Nottingham and Birmingham.

Methodology
The method is to assess a small number of personal qualities independently of the admissions interview, using validated psychometric instruments (questionnaires). Since both interview formats attempt to assess empathy, motivation and commitment to medicine, and communication skills, these are the qualities studied. The relationship between interview performance and questionnaire measures is modelled using SPSS and AMOS.

Results
Results from the study will be presented and discussed with reference to the validity of the different interview structure and design. The influence of impression management and factors concerned with performance in high stakes situations is also being examined.

Discussion and Conclusions
The role of medical school interviews (or assessment centres) has been under question4 and it is timely to consider how effective we can make this form of evidence in aiding selection. Interviews mainly endeavour to assess personal qualities required in doctors5, but take a considerable investment of resource that is duplicated across different schools. This preliminary research is part of an attempt to aid convergence in selection processes in the UK. One next step will be to consider whether interviews and situated judgment tests provide comparable evidence and how this may be integrated and used.

References
Did the analysis of the first cohort of graduates admitted to medicine using UKCAT lend support to the test or not?

N Sartania, A Browitt J McClure

N Sartania, School of Medicine, College of Medical, Veterinary and Life Sciences and Recruitment and International Office, University of Glasgow, Glasgow, UK

Background and Purpose
The medical profession requires many different skills and talents and it is essential that admissions procedures used by schools help select applicants with set of the attributes desirable in a medical practitioner. While the list of desirable personal qualities is long, authors rate non-teachable, non-cognitive traits very highly and call for higher weightings of these in admissions processes. UKCAT was first introduced in 2007 to test various reasoning and intellectual abilities/aptitudes, rather than academic knowledge. Most importantly, the test was believed to have the potential to improve fairness in the system and widen participation of non-traditional applicants from disadvantaged backgrounds. Now that this ‘naïve’ cohort of students with no prior exposure to the test has completed the course, we aimed to analyse the predictive value of the test on performance across their clinical and academic examinations. This study evaluates incremental predictive validity of the UKCAT in addition to interviews and school results and is driven by the necessity to provide a scientific basis for any decisions on the future use of the test.

Methodology
In this cohort study, secondary analysis was used to examine the relationship between admissions criteria and performance scores. Students were eligible if they had taken the test and provided opt-in consent for the use of their admissions and performance data. Admissions variables in this study included the UKCAT total, its subscores and interview scores, as well as student demographics and were analysed against performance data in the medical school. Each response outcome variable and corresponding explanatory variable was entered into regression using univariate analysis first. Only if statistical significance (defined as p ≤ 0.15) was observed was this variable entered into multiple regression (p ≤ 0.05 used).

Results
Results from the regression analysis will be presented, as will the framework of the interventions thought to be appropriate as a result of the findings.

Discussion and Conclusions
To date, there are just a handful of publications that look at predictive validity of the UKCAT with almost mutually exclusive conclusions. Curriculum differences, varied teaching and assessment methods as well as insufficient sample sizes make it hard to compare the results of these studies and make general assumptions.

Although the current study analyses a single cohort with a specific curriculum (PBL-based), the conclusions will help inform the admissions strategies and initiatives being discussed within medical schools.

References
Quality improvement in Multiple Mini Interviews at Queen’s University, Belfast

M Aicken, K Steele, M Cupples

M Aicken, GP Research Registrar, Department of General Practice, Centre for Medical Education, Queen’s University, Belfast

Background and Purpose
Non-cognitive or ‘people skills’ have received increased attention by the General Medical Council in recent years(1). In December 2012 Prince Charles urged the medical profession to consider how modern medicine could be putting the ‘human touch’ at risk(2). Many UK Universities have adopted the Multiple Mini Interviews (MMIs) as a means to assess ‘people skills’ on entrance to medical school. At Queen’s University, Belfast (QUB) we have monitored the reliability of our MMI’s annually, seeking to improve it year on year, based on an evolving body of evidence.

Methodology
A search of the available literature pertaining to the parameters in MMIs led to several changes being made to the 2013 entry MMIs at QUB. Global scoring in OSCEs has been shown to be more reliable when compared across multiple examiners than scores obtained by ‘checklist’(3). At QUB this year score sheets were changed from ‘check list’ to ‘global’ scores; applicants receiving likert scores (1-7) for several competencies within each station. Furthermore, the number of skills to be assessed overall in the MMIs was reduced from six to four (problem solving, ethical reasoning, communication and empathy) in an attempt to focus on the most important skills(4) and thereby improve their reliability and validity. Attempts were also made to counter the negative skewing of assessment scores found at QUB, by ensuring that no questions had a definite ‘right answer’; the subsequent MMI experience being more challenging for applicants than previous years. In addition to this, feedback from the previous years’ assessors on station content and an independent evaluation by a psychologist were used to actively remove potential bias related to gender, ethnicity, local culture and dialect.

Results
Data are currently being collected and will be complete by February 2013 when the current assessment for medical school intake ends. Analysis of the first half of the 2013 entrance MMIs has shown a Cronbach’s alpha of 0.65 which is an increase from previous years. Furthermore, scores are no longer negatively skewed. We will soon be in a position to present a full comparison of our new data with previous years.

Discussion & Conclusions
Evidence suggests that as well as improving the Cronbach’s alpha at QUB and correcting the issue of negative skewing, the changes to our selection process instigated this year will also confer increased ability to select the best applicants to become tomorrow’s doctors.

References
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Staff/Faculty Development
Supporting trainees through transitions in postgraduate medical education

A Smithies, C Rees, J Ker, M Lough

A Smithies, PhD Student, University of Dundee, Dundee, United Kingdom

Background and Purpose
During their postgraduate medical education, trainees typically move between placements several times per year. The link between these transitions and medical performance has not been systematically investigated. There is evidence that transitions are known to be associated with increased risk of adverse incidents. It has also been reported that trainee doctors in transition tend to underperform at the beginning of new clinical rotations and that they experience inconsistent monitoring and support while they adapt to their new roles and responsibilities. The aim of this study is to address the gap in the current literature about support for professionals as they transition into and out of workplace learning environments. This will explore aspects of culture, and social and organisational support, which have an effect upon professional socialisation. Professional socialisation describes the process by which trainees acquire the values and attitudes, interests, skills and knowledge in the groups they belong to or seek to be a member of.

Methodology
A qualitative approach, underpinned by constructionist epistemology, has been employed to answer the following research question: What organisational, environmental and cultural factors aid the professional socialisation of Foundation Year doctors as they transition into and between rotations? Group and individual interviews have been undertaken with Foundation Year trainees, along with a range of trainers and support staff from across the Scottish Foundation Programme, to explore the process and experiences of transition. Framework analysis aided by Atlas-Ti is being used to identify themes relating to transition, enculturation and socialisation processes.

Results and Discussion
By the time of the conference all data will have been analysed. The key content- and process-related themes (the, and) will be presented along with recommendations for trainee induction and support. Ultimately, we hope to inform medical educators about effective approaches to support and encourage participation of new trainees in the healthcare workplace.

References
Using Translational Research as a Vehicle for Collaborative Learning

D McGregor, T Robinson, T Shaw, & N Rankin

D McGregor, Research Officer, Sydney Catalyst TCRC, University of Sydney, Australia

Background and Purpose
Research consistently shows that what we know is not always what is practiced and that the transfer of research findings into practice is often a slow and haphazard process. The Sydney Catalyst Translational Cancer Research Centre is a multi-disciplinary and multi-institutional initiative of the Cancer Institute of NSW (CINSW) and based at the University of Sydney. Sydney Catalyst aims to improve health outcomes for people affected by cancer with rapid translation of research evidence into policy and practice. All professionals involved in cancer care, across the discovery-development-delivery continuum, must maintain up-to-date knowledge of oncology evidence. Increasingly, the complexities of health care fosters the interdependence of health professionals and organisations, emphasising the need to shift from learning in isolation to a culture of active participation in the generation and application of knowledge that is openly shared with colleagues. Utilising translational research and knowledge translation as a vehicle for collaboration, Sydney Catalyst proposes the formation of a collaborative network that drives intra- and inter-institution interactions between researchers and knowledge users.

Methodology
A scoping study of published and grey literature was used to gather current concepts and innovations in collaborative networks. This data, coupled with the Sydney Catalyst adopted model of translational research and knowledge translation framework, informs the conceptual development of a collaborative network initiative.

Results
Collaborative innovation networks, Open Innovation networks, Living Labs and Translational science networks, are a few emergent collaborative concepts. Scoping study results will be presented along with discussion of the opportunities for the formation of an innovative cancer care collaborative network.

Discussion
Research has demonstrated a positive association between knowledge transfer and collaboration. However, despite the opportunities afforded by working together, we fail to capture the full potential of these relationships. A cancer care collaborative network underpinned by translational research activity could provide the infrastructure and support required for collaborative learning encounters.

References
From biomedical scientist to medical educator: an exploration of teaching focused careers in UK medical schools

T Collett, S Capey, J McLachlan, D Evans; K Johnstone, D Bristow

T Collett, Lecturer in Human Sciences, Plymouth University Peninsula School of Medicine and Dentistry, Plymouth, Devon, UK

Background and Purpose
Medical education has a key role in improving the standards of quality, patient-centred care in the current and future generation of doctors. However, the model of University funding primarily driven by research outputs remains a challenge impacting on the recognition of teachers in medical education. Specifically, it has been argued that the professional career pathway for medical educators is poorly structured and this has implications for the retention of skilled staff.

Methods
This research explores the experiences of biomedical scientists employed as lecturers with a teaching focused position in medical education. Twenty eight in depth, semi-structured interviews were undertaken at five UK medical schools. The transcribed interviews were analysed thematically in the first instance (according to a framework agreed by three project organisers) using QSR nVivo. These findings are reported in this paper.

Results
For the majority of participants employed at ‘early lecturer level’, teaching in medical education was perceived as an opportunity: a secure, innovative, ‘freeing’ position, ‘away from the bench’ and away from the pressure to bid for research funding in an increasingly competitive environment. However, other participants felt overwhelmed by work, adrift from their ‘parent’ discipline, unrewarded and underprepared. For those with longer tenure there was a perceived disparity between clinical and non-clinical medical educators and concern about first, the lack of a robust metric to measure excellence in teaching and second, the prospects of promotion.

Discussion and Conclusions
Our initial findings have numerous practical implications for medical schools related to: first, managing initial expectations of staff; second, organising the first year of employment; third, celebrating the diversity of staff roles; fourth, finding precise ways of assessing excellence in teaching and finally working with host universities to enable promotion of staff.

References
1. GMC, Tomorrow’s Doctors. General Medical Council 2009.
3. The Academy of Medical Sciences. Redressing the Balance: the Status and Validation of Teaching in Academic Careers in the Biomedical Sciences. A Report by the Academy of Medical Sciences. 2010
Recognising and Responding to Underperforming Trainees: A strategy with a process

J Graves, C Tiplady

J Graves, Educational Practitioner, Northern Deanery, Newcastle upon Tyne; C Tiplady, Regional Clinical Advisor for Education, Northern Deanery, Newcastle upon Tyne

Background and Purpose
Development of professional competencies under the European time directive is a challenging concept for most trainees. It has disrupted the traditional team structure and working patterns resulting in the framework of support, mentoring and guidance opportunities of trainee being eroded\textsuperscript{1,2}. Research shows that the Annual Review of Competency Progression (ARCP) process is unlikely to identify an underperforming trainee\textsuperscript{3}. The Northern Deanery has developed a strategy to ensure that underperforming trainees are recognised early, that they are supported and there are correct processes to monitor and document their progress.

Methodology
Action research project with a 3 strand approach. 1 – \textbf{Faculty development} enabling the trainers to prevent and recognise/respond to underperformance at the earliest opportunity. Training included empowering the trainee through feedback and Socratic questioning, developing SMART action plans, how to access and utilise further support if needed and appropriate recording within ARCP portfolios. Senior trainers eg Training Programme Directors were given training on supporting trainers/trainees. 2 – \textbf{Suitable support} for both trainees and trainers at all levels of intervention, from first response to appeals and tribunals. We have a bank of trained mentors, a Trainee Support Service (TSS) providing psychological, occupational health, educational and careers support. Clinical supervisors meet the trainee weekly and educational supervisors six-weekly to ensure that the trainee is on track and supported. 3 – \textbf{Appropriate communication at all levels}. A robust escalation process is used and has been shared with all from the multi-professional teams to Medical Directors etc. The portfolio is used as the main communication pathway ensuring that there is a three way conversation with the trainee, named clinical and educational supervisor. All parties have an understanding of how to appropriately complete document discussions, actions and interventions within the portfolio.

Results
Having been rated by the GMC trainee survey as the best Deanery for trainee satisfaction and feedback in England this indicates successful intervention. As does the increase in ARCP outcomes 2 and 3 (triggering targeted support) signifying that underperformance is recognised and reported more efficiently than ever before

Discussion and Conclusions
Quality assessing the results of faculty development and services is undertaken through national and local surveys which in turn generate new training and process refinement. The trainees themselves must engage with the process as they often see targeted support as failure. The Foundation trusts are beginning to recognise that they must allocate trainers sufficient time to support trainees who are underperforming to prevent them from becoming trainees in difficulty.

References
Who are the Trainers? Placement Supervision Group composition in the Medical Foundation Programme

J Smith, T Brown, K Beggs, A Haig

J Smith, NHS Education for Scotland (NES), Westport 102, West Port, Edinburgh, EH3 9DN, United Kingdom

Background and Purpose
The Foundation Programme (FP) is followed throughout the UK for newly qualified doctors. In August 2012 a new version of the FP Curriculum was introduced. The 2012 FP Curriculum document\(^1\) and FP Reference Guide\(^2\) were published to support the introduction of this new curriculum. One of the innovations set out in these documents was the mandatory introduction of the ‘Placement Supervision Group’ (PSG). The PSG consists of trainers nominated in each placement by the trainee doctor’s named clinical supervisor.

The PSG is responsible for observing the foundation doctor’s performance in the workplace, providing feedback on practice and facilitating the doctor’s assessments and supervised learning events. The group also provides feedback to the clinical supervisor to help inform the completion of an end of placement report that is one of the key points of appraisal of the trainee’s learning and progress through the FP Curriculum. The makeup of the PSG will vary depending on the placement but will typically be drawn from consultants and GPs, senior trainee doctors, senior nurses and allied health professionals.

Although it is intended that all trainees in the FP should have a PSG it is not currently known how far that intention has been translated into practice or who exactly these groups consist of and if they vary depending on the clinical speciality of a particular training placement. This study will investigate the uptake and composition of the PSG in order to inform the future support and development of these individuals.

Methodology
The NHS Foundation ePortfolio\(^3\) is an online tool used to document progress though the FP. One of the documents collected is the ‘Clinical Supervisor’s End of Placement Report’. In this document the supervisor records if a PSG has contributed to the report and also the job roles of the members of the group. Using anonymised data from the ePortfolio database for the 2012-13 training year the PSG will be reported by location and speciality.

Results
Results from the analysis of both the percentage uptake and job role composition of the PSG will be presented.

Discussion and Conclusions
Those professionals who make up the PSG will make an important and significant contribution to the education of trainee doctors across the UK. Investigating the makeup of the group is useful to inform decisions about time provisioning, education and continuing professional development for the members of the group.

References
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Social constructivism in action: research-based learning

R Robinson
R Robinson, Postgraduate Deanery for Kent Surrey and Sussex

Background and Purpose
This session will present a distinctive approach to teaching and learning, within successful Masters programmes. This approach is practice-based inquiry, focussed on improving educational and clinical practice. This is the approach that Kent, Surrey and Sussex Deanery (KSS) terms ‘Research-Based Learning’. We believe that this approach differs fundamentally from other approaches, as it puts the learners’ contexts, interests, practices and needs at the heart of the learning experience.

Methodology
This presentation will aim to give brief illustrative vignettes of students’ work, to illustrate examples of their practice-based research. These will include work done by students who are hospital consultants working in a range of specialties. The examples will be drawn from the MA Education in Clinical Settings and the MSc Geriatric Medicine. We intend that the presentation will illustrate the educational theory of social constructivism being practiced in postgraduate medical education.

Results
Individual student projects have been accredited as part of our Masters programmes and have been presented within Local Education Provider (LEP) meetings and Specialty School meetings, or have been published.

Discussion and Conclusions
There is wide interest in our courses, and we are currently running four Masters programmes for hospital consultants and other senior healthcare professionals using this approach.

References
Successfully enhancing the efficacy of a postgraduate blended learning programme for national and international participants

A Pettigrew, C Dobson-Davies

A Pettigrew, Director Postgraduate Certificate in Medical Education, Hull York Medical School, University of York, UK

Background and Purpose
Hull York Medical School (HYMS) introduced its Post Graduate Certificate in Medical Education (PGCME) over 3 years ago and chose from inception to deliver this via a blended learning approach. The key driver for this approach was the difficulty of busy clinicians not being able to attend face to face events and at the same time being apprehensive about taking the leap to fully on-line provision (1). This session aims to share the programme team’s approach to ensuring that the technology enhanced learning (TEL) approach delivered via the Institutional Virtual Learning Environment (VLE) has been effective and pedagogically robust in achieving the enhancement of teaching practice across the cohorts. The PGCME at HYMS is growing in scale and diversity of intake, including participants from across the UK and Europe.

Methodology
This session investigates the part-time blended learning student experience, identifying their specific needs and how these continue to inform curriculum change to facilitate a ‘community of inquiry’ (2). These vignettes of best practice have subsequently informed developments leading to progression to both Diploma and MSc in Medical Education but have yet to be fully exploited in transferability to full-time students on both undergraduate and postgraduate HYMS provision (3). This sharing of experience allows delegates to consider how changes can be implemented within their own institutions to ensure that the added value of blended learning is measurable and provides evidence of impact (4).

Results
The achievements from the first three cohorts will be presented along with vignettes of good practice, which have been informed by a diverse range of participants (including colleagues from Denmark in 2012/13) and a growing network of Programme Tutors all of whom have been required to develop new skills and capabilities and are from a variety of technological skill sets.

Discussion and Conclusions
Resistance to on-line components of blended learning which are not mandatory and which have not been integral to summative assessment have been identified as potential barriers to participation (ref 5). Reflecting on experience and facilitating a shift in paradigm with both participants and programme tutors has resulted in measurable increased levels of activity. The commitment and input required to support both participants and tutors to enhance all aspects of the blended learning experience will be of interest to national and international colleagues particularly in a climate of austerity where allocating face to face study is not always possible.

References
Does Activity Theory help our understanding of teamwork, leadership and interprofessional collaboration?

J McKimm, M Barrow, S Gasquoine, D Rowe

J McKimm, Dean and Professor of Medical Education, College of Medicine, Swansea University, UK

Background and purpose
The literature identifies the lack of a conceptual underpinning to interprofessional education and collaborative practice, linking this to the failure of many initiatives to improve such practice. Many reported educational initiatives, typically in uni-professional contexts, relate to teaching non-technical skills (teamwork, leadership and communication) where the inability of professionals to work together is manifested in practice. We report on an ongoing research study in New Zealand which aims to enhance our understanding of the complexities of professional, collaborative practice by identifying the perceptions and experiences of doctors and nurses at different stages of their professional career about teamwork, collaborative practice, working interprofessionally, leadership and followership.

Methodology
In stage one of the study, we interviewed and carried out a questionnaire survey of newly graduated doctors and nurses working in secondary care, exploring their perceptions and understandings of leadership and teamworking. In stage two, 40 face-to-face, individual, semi-structured interviews were carried out in 2011-12 with senior doctors and nurses working in two clinical settings in a large urban hospital. Data generated were analysed with a framework developed using activity theory to enhance understanding of interprofessional teamworking.

Results
Health professionals work in multiple teams with competing needs and conflicting values. Loyalty to the professional team often overrides other considerations leading to dysfunction and sabotage. Patient advocacy is used to challenge other professionals and enable collaborative practice.

Discussion and conclusions
Contemporary teaching of ‘teamwork’ or ‘communication’ in uni-professional training may enhance understanding but is unlikely to improve interprofessional ‘collaboration’ in practice, as it fails to address how health professionals actually work in contemporary health services. An activity theory based framework is used to consider how the context of care might affect clinicians’ conceptualisation of collaboration with other professionals, both members of their own profession (intra-professional working) and members of other professions (inter-professional working). The nature and interviewees’ perceptions of ‘collaboration’ in different specialties is also explored. To achieve improved patient care, we discuss how different pre-qualifying education and ongoing professional development is needed to help health professionals achieve greater understanding of the complexity of interprofessional teamwork and the loci of power, control and authority. Such development requires changing ways of thinking about identity formation, how different professionals perceive healthcare, the influence of the specialty and the location of professionals’ healthcare work.

References
Student Welfare
Student travel to clinical placements: an unexpected burden

RK McKinley, A Hassell, S Philpott

RK McKinley, Keele University School of Medicine

Context
Keele has a major general practice placement programme: students are placed in general practice for 4, 5 and 15 weeks in year 3, 4, and 5 respectively. Teaching practices are widely dispersed and which creates a substantial travel burden. In conjunction with our Deanery, we wished to mitigate this burden by providing a travel bursary. We were aware that some hospital placements required travel, so to disburse the bursary fairly, we wished to estimate our students’ total travel burden. We now report our findings.

Method
Keele is a small school with, currently, 406 students in years 3 to 5. Our students are placed at one of three hospital trusts each year and are allocated to practices which are closest to their base hospital.

SP (placements coordinator) systematically identified the travel burden associated with placements at our three base hospitals, their community clinics and satellite campuses and the associated practices. While this was straightforward for general practice placements, it necessitated careful scrutiny of hospital placement timetables and placement plans for each site for each placement. We discounted journeys for which hospitals provided free travel. We used the post codes of the teaching centre on each hospital site and the placement (practice, clinic or satellite campus) to estimate the distances using googlemaps. The distances were collated and multiplied by the number of journeys in the academic year 2012-13.

Results
The total travel burden for our students in 2012-13 will be 978,000km of which 478,000 (49%) is accounted for by general practice. The greatest travel burden is shouldered by year 4 (407,000km, 42% of the total) followed by year 5 (396,000km, 40%). In years 4 and 5, 18% and 80% respectively of the burden results from general practice placements. On average, a week of hospital placement creates a travel burden of 17km and general practice 51km per student. Individual annual travel burdens vary from 241km to 9476km (100% to 84% general practice associated).

Conclusions
Half of our students’ travel burden results from hospital placements although, per week, it is one third that of general practice placements. It is recognised that there is a significant travel burden associated with general practices placements but the burden associated with hospital placements is usually unrecognised. As a result, the travel burden faced by our students was greater than expected. We would encourage other schools to estimate their students’ travel total burden.
Teaching About Specific Subjects
Teaching medical students about human factors in patient safety using the WHO surgical safety checklist

A Patel, N Patel, L Ambrose, R Nair, V Patel

A Patel, Research Fellow, Warwick Medical School, Coventry, United Kingdom

Background and Purpose
The WHO Surgical Safety Checklist (SSC) encourages effective communication and prevents errors in the operating room\(^1\). No studies have investigated its use in the undergraduate medical curriculum. Our objective was to design a tutorial, based on existing evidence on medical education, using the SSC to illustrate a human factors approach to patient safety and evaluate its impact on the attitudes, knowledge and skills of medical students.

Methodology
A pilot study with focus groups was run. This was used to design a tutorial, based on the COMET (clinical objective medical educational tutorial)\(^2\) structure, where each student rotated through stations on aspects of patient safety and undertook a simulation exercise using the SSC. Objective assessment at each station enabled immediate feedback driving further learning. Forty 3\(^{rd}\) year medical students participated in the study with evaluation of attitudes using the APSQ\(^3\). Impact on knowledge and skills acquisition was measured (Likert) through self-reported confidence in key areas. Ethical approval was gained from the University of Keele. Students paired t-test and ANOVA were used for statistical analysis (SPSS Version 18).

Results
Pretutorial focus groups revealed lack of awareness about the nature of medical error. There was a significant improvement in attitudes, knowledge and skills as assessed by mean pre and post tutorial scores (±SD): Attitudes 123±10 vs 137±10.3, p<0.001, Knowledge 38±9.3 vs 58±6.6, p<0.001, Skills 30±7.1 vs 47±4.7, p<0.001. Most significant areas included error reporting (12.1 vs 16.7, p<0.001), team working (11.6 vs 12.1, p=0.009) and importance of patient safety in the curriculum (16.4 vs 18.2, p<0.001). Students scored significantly poorly on the error reporting station (mean score 20/40, p<0.001).

Discussion and conclusions
Teaching on patient safety in the undergraduate curriculum needs to address any pre-conceived ideas about the nature of medical error and change attitudes whereby doctors can discuss near misses and adverse events in a non-judgemental, productive manner. This study showed that the SuTURES tutorial used a novel educational method to introduce these concepts and successfully changed attitudes towards patient safety. Furthermore it provided assessments on core aspects of clinical practice that reflect the responsibilities of junior doctors. If the new generation of doctors are to be able to deliver patient centred care that is safe, teaching on human factors in patient safety needs to be included in medical curricula.

References
The use of data interpretation single best answer questions in radiology teaching in medical undergraduates

J Siddiqui, A Singh, R Lingam

J Siddiqui, Clinical Teaching Fellow in Otolaryngology and Radiology, North West London Hospitals NHS Trust, London, UK

Background
Radiology teaching in medical undergraduates varies greatly amongst institutions, with many receiving mainly ad-hoc teaching within separate medical specialities. Many medical schools do not provide formal attachments in radiology.

The aims of this study were to assess for a subjective change in confidence and knowledge of head and neck radiology, following the use of data interpretation single best answer (SBA) questions as a teaching tool.

Methods
Thirty final year medical undergraduates were recruited during their attachment in otolaryngology. As well as general otolaryngological teaching, students were given a small group teaching session, specific to head and neck imaging. In the same week, students undertook a formative assessment using data interpretation and analysis of images, assessed using SBA questions.

Students were asked to give feedback on the usefulness of this model of radiological teaching, including their confidence in summative assessment on the topic, and in radiology generally, before and after the teaching session and SBA assessment.

Results
All students subjectively stated that their confidence on the topic of otolaryngological radiology, and in radiology in general, improved after receiving this model of teaching.

Conclusion
Small group specific teaching, followed by SBA assessment on data interpretation in specialist radiology was subjectively useful as a teaching tool in this group of final year medical undergraduates. Formalised specialty radiology teaching programmes may result in better overall confidence, and comparative objective studies are needed to assess and validate this.

References
Doctors as documenters, can we help them? An Audit and Re-audit of Surgical Ward Round Documentation within University Hospitals of Leicester

A Seager, DJ Bowrey

A Seager, FY1 Doctor, Postgraduate Education Centre, Royal Lancaster Infirmary, University Hospitals of Morecambe Bay NHS Foundation Trust

Background and Purpose
Poor medical record-keeping may permit gaps in the completeness, accuracy and continuity of patient care. The RCSEng, AoMRC, and GMC have each published written guidance on clinical documentation\(^{(1,2,3)}\). Previous work has found deficiencies in documentation of surgical ward rounds\(^{(4)}\), and a pilot audit of surgical ward rounds within UHL revealed that documentation was less than complete here also. A larger audit was conducted to assess quality of clinical record-keeping against local and national standards. Our aim was to produce a tool to assist documentation of ward round consultations, by junior doctors.

Methodology
One independent investigator (AS) was present at 250 surgical ward round consultations (127 pre- and 123 post-intervention). Ward round consultations were recorded using a locally-developed template reflecting national and local documentation standards. Accuracy of data capture was confirmed and approved by DJB. Data were compared with corresponding entries in clinical records within 8 hours to ensure contemporaneous data capture. The template was then developed into an A4 proforma, which replaced blank continuation sheets for recording ward round consultations. Consultants, FY1/2s and CT1/2s were briefed by AS on the content and use of the proforma prior to its introduction. Re-audit was conducted after a brief familiarisation period.

Results
Most data categories were analysed using chi-squared test; recording of Time (OR 5.31, 95%CI 2.70-10.45), Working Diagnosis (OR 8.45, 95%CI 4.79-14.92), EWS (OR 3.89, 95%CI 2.20-6.90) and Doctor’s Name (OR 2.92, 95%CI 1.60-5.33) all improved, whilst that of Unit number (OR 7.12, 95%CI 0.86-58.72), Patient Name (OR 1.47, 95%CI 0.41-5.36), Ward Round Leader (OR 0.97, 95%CI 0.13-6.98), Date (OR 0.77, 95%CI 0.20-2.93), EWS breakdown (OR 1.02, 95%CI 0.62-1.69), LWMH Prescription Checked (OR 1.03, 95%CI 0.06-16.70), Discussion of Diagnosis/Events (OR 1.63, 95%CI 0.70-3.77) and Discussion of Management (OR 1.66, 95%CI 0.96-2.88) was unchanged, and Doctor’s Designation (OR 0.52, 95%CI 0.32-0.87) and Signature (OR 0.33, 95%CI 0.13-0.88) worsened. Recording of Subjective Findings (z = -7.00) and Objective Findings (z = -6.44) was analysed with the Mann-Whitney U test; both showed significant improvement. Figures for VTE Risk Assessment could not be calculated as pre-intervention recording of data was 0.

Discussion and Conclusions
Use of a proforma is able to improve some areas of documentation of surgical ward rounds. We hypothesise that recording of other data may be improved by re-design and refinement of the proforma, and that this may be used to provide education on documentation to junior doctors.

References
1. Academy of Medical Royal Colleges, A Clinician’s Guide to Record Standards – Part 2: Standards for the structure and content of medical records and communications when patients are admitted to hospital, 2008.
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A prospective study comparing teaching by Clinical Teaching Associates with traditional methods

M Masiello, M O’Sullivan, S Mathew- Lynn, A Sinha, K Jones

M Masiello, Clinical teaching fellow, University of Bristol Academy at Great Western Hospital, Swindon, UK

Background and purpose
Clinical Teaching Associates (CTAs)\[^{1,2}\] are lay women, trained to teach undergraduates the practical, communication and patient-centred skills required to perform gynaecological examinations. CTAs teach using their own bodies. Traditionally, undergraduates are taught using a combination of plastic models and consented, anaesthetised patients. Objectives: 1. To evaluate a new CTA teaching initiative for obstetrics & gynaecology (O&G) undergraduates 2. To compare the student experience of learning to perform pelvic examinations using CTAs with traditional methods

Methodology
We trained four CTAs who then taught 39 O&G undergraduates. Students rated the session across different elements (see table below) and were asked to compare the session to their traditional teaching. Students were also invited to give qualitative feedback. Data gathered was analysed for statistical significance using a Mann-Whitney test.

Results
Students’ rating of effectiveness of CTA teaching was consistently higher than traditional teaching in all areas, with statistical significance ($P < 0.0001$, 95% Confidence Interval: 2.0-6.0).

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<tr>
<th>Skill area</th>
<th>Traditional (median)</th>
<th>CTA (median)</th>
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<td>Explaining the procedure</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Understanding patient comfort</td>
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<td>10</td>
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<td>Understanding patient dignity</td>
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<td>Performing the speculum</td>
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<td>Performing bimanual examination</td>
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<td>Asking questions</td>
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<td>The overall learning environment</td>
<td>6</td>
<td>9.5</td>
</tr>
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Many themes were drawn from the qualitative feedback; students valued the open and comfortable teaching environment and the ability to ask questions, that the sessions increased their confidence and helped them become more patient-centred. Students felt that CTA teaching should be available to all undergraduates.

Discussion and conclusions
This study supports published data demonstrating that CTA teaching is superior to traditional methods for learning pelvic examinations \[^{2}\]. We have evaluated our programme and shown that a CTA programme can be effectively developed. We hope that CTA teaching will be adopted by a wider group, improving the skills of future doctors and therefore improving women’s’ healthcare.

References
Advancing understanding of dementia and delirium education: Integration of findings of a grounded theory study with Cultural Historical Activity Theory

A Teodorczuk, S Corbett, E Mukaetova-Ladinska, M Welfare

A Teodorczuk, Consultant Psychiatrist and Honorary Senior lecturer in Medical Education, School of Medical Education Development, Newcastle University, England

Background and Purpose
Policy calls for better training in relation to dementia and delirium care in the hospital\(^1\), however there is little consensus on what that entails\(^2\). Previously we have published the results of a Grounded Theory study which found that in relation to managing the confused older hospitalised patient, educational processes should move away from disease based teaching models towards work based team, patient and practice models\(^4\). In this report we present at a theoretical level concepts that evolve from integration of these findings with Engestrom’s Cultural Historical Activity Theory (CHAT)\(^3\), a contemporary education theory with high applicability towards teaching and learning in a complex clinical environment.

Methodology
Adopting Grounded Theory methodology\(^5\) and working within a social constructivist paradigm we explored the learning needs of 15 healthcare professionals by interview and conducted five focus groups with patients, carers and Liaison Mental Health experts. Themes were identified and conceptual models were developed based on the emergent categories. Models were taken back to participants by means of a member check. Findings were subsequently related to CHAT to further refine models that have since been translated to drive innovative educational approaches.

Results
In relation to learning needs of hospital staff the central object is learning about the patient, the mediating artifacts being care relationships. Identified contradictions included the focus on tasks based activities over person centered activities, the dominance of medical models and lastly the focus on disease based knowledge rather than learning about the patient. Further knots in the system included knowledge hierarchies, which disempower staff and divisions of labour within wards that prevent knowledge transfer. Mapping out these findings identifies spaces for organisational learning. An example of team and organisational learning that has occurred through such a process will be presented.

Discussion and Conclusions
Applying CHAT as a lens to examine our findings sheds new light on dementia and delirium educational approaches in the workplace. The knots can be disentangled further by means of multivoiceness and interprofessional education. The next step is to translate these findings from postgraduate to undergraduate level and develop an interprofessional intervention that addresses the identified contradictions. By focussing teaching approaches further upstream the potential exists for earlier negotiation of learner identities and thereby greater accountability for the confused older patient. Arguably, this could equip staff to better manage the increasing complexities and challenges presented by the ageing population in our future work places.

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Prescribing fluid therapy – why do medical students find it so difficult?

GJ Gormley, MC McCloskey, AP Maxwell

GJ Gormley, Senior Clinical Academic General Practitioner, Centre for Medical Education, Queen’s University Belfast (QUB), Northern Ireland

Background and Purpose
It is well recognised that junior doctors find fluid prescription a challenging topic. Various studies have documented the poor understanding of the content and administration of intravenous fluids to patients. The aim of this study was to gain a greater understanding of the experiences and challenges that medical students face regarding the learning of intravenous fluid prescribing.

Methodology
This was a qualitative study using focus groups analysis. Final year medical students in academic year 2011-12 at Queens University Belfast (QUB) were approached during their assistantship in March 2012. They were invited to participate in 6 focus groups consisting of 6-8 students per group, which were recorded and transcribed verbatim. The research team, consisting of 3 separate investigators, carried out thematic analysis independently and a final consensus regarding emerging themes was reached by discussion within the whole research team.

Results
Five prominent themes emerged from the focus group analysis: 1) ‘Teaching experience: disruptive variation’ where, in the students opinion, the teaching of intravenous fluids varied considerably amongst difference specialities and teachers; 2) ‘Insufficient curricular connections’ where the students believed there was insufficient vertical and horizontal integration of the teaching between and within years; 3) ‘The driving test: theory-practice transformation’ where there appeared to be a difference between what is taught in theory and what happens in actual clinical practice; 4) ‘Role modelling: which standard to aspire to?’ where students regarded the doctors on the ward as being role models and had difficulty judging which standard to aspire to; and finally 5) ‘Perceived risk conflict’ where students expressed a conflict between the perceived high risks of fluid prescription (particularly portrayed by the media and in their teaching) compared to what they actually experienced in the clinical environment.

Discussion and Conclusions
This study has provided an insight into medical students opinion of the teaching practices and learning experiences of intravenous fluid prescribing. It has added to the growing body of evidence that fluid prescription is a difficult topic, and is the first study to look specifically at the method of fluid teaching used and the advantages and disadvantages of each approach. It has generated a number of recommendations to improve fluid prescription and its teaching as an undergraduate in the future.

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Teaching and Learning
How should virtual patients be designed for medical undergraduates? A multi-centre, randomised factorial study

J Bateman, M E Allen, J Kidd, S Nassrally, N Parsons, D Davies

J Bateman, Arthritis Research UK Education Research Fellow & SPR Rheumatology, Education Research and Development Team, Warwick Medical School, UK

Background and Purpose
Virtual patients (VPs) are web-based representations of realistic clinical cases, created to technical standards. They literature supports their use, and they are widely used to teach medical students. Recent reviews have highlighted limited evidence to support individual VP designs, calling for further research 1. The clinical reasoning literature may be relevant to VPs 2. The aim of this study is to research different VP design properties using a range of outcome measures.

Methodology
This is a randomised multi-centre 2x2 factorial study design exploring VP design properties in medical students, conducted to a published written protocol 3, with ethics approval. The two independent design variables are: (1) ‘branching’ case designs, present or absent; and (2) structured clinical reasoning instruction 2, present or absent. Participants are volunteers from three UK Schools: Warwick (WMS); Birmingham (UMBS); and Keele (KMS). We authored and piloted four musculoskeletal (MSK) clinical cases, the 2x2 design producing 16 VPs in total. Each VP contained the a standardised 15-item assessment comprised of eight key-feature problems (KFP), two multiple choice ‘diagnosis’ questions, four clinical decisions, and one Bayes reasoning question. All groups completed the cases in the same order, but each with different designs. We collected electronic data logs, and an established self-reported evaluation (eVIP 3) for each VP. Additional summative assessment data was collected from WMS. Data analysis was per protocol including ANOVA and ANCOVA 3.

Results
From the 718 students we invited to participate, 591 (82.5%) gave informed consent (WMS 206/231, 89.2%; UMBS 262/354, 73.4%; KMS 111/133, 83.5%). The students completed 1774 VPs (mean 3.0 per student), spending on average 28.6 minutes (S.D. 13.7) per VP returning 1229 complete evaluations (70.8%). For all completed cases: branching vs. no branching, we found significantly higher KFP scores only (n=1774, P<0.05, small effect size), no other significant differences. For structured clinical reasoning instruction when present: significant improvements in KFP, Bayes reasoning, and decision-making scores (all P<0.05); and in the ‘coaching’ domain in the evaluations (n=1229, p<0.001); effect sizes were small. At WMS, VP scores correlated strongest with the end of year summative written exam (moderate correlation, r=0.43, p<0.001) than all other university summative written assessments (r=0.39, p<0.001), and the end of year clinical exam (r=0.22, p<0.05).

Discussion and Conclusions
This is the largest study to date into VP design, allowing educators to evaluate distinct design approaches, content, assessment metrics. These VPs are free open-access teaching resources available to any UK institution under a Creative Commons licence.

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Evaluation of Teaching Medical Students How to Take Blood Cultures

G Woodfield, S J Dawson, M O’Sullivan, L J. Hocking, K Jones

G Woodfield, University of Bristol Academy, Great Western Hospital, Swindon, UK

Background
Taking blood cultures is an important skill that medical students need to acquire by the time they qualify. It is essential that it is incorporated into the undergraduate teaching curriculum.

Objective
To evaluate the effectiveness of teaching 4th year medical students how to take blood cultures using a combination of theory and practical training.

Methodology
Taking blood cultures was taught to two groups of medical students using three components – a lecture, a video demonstrating the correct technique and a practical session using a manikin arm for each student with one to one feedback. Using an evaluation questionnaire an assessment was made to see how confident students were at taking blood cultures pre and post session. Before the session the students filled in the section asking if they had previously taken blood cultures and to rate their confidence level in taking them correctly using a scale of 1 to 10, from “not confident” to “fully confident.” After the whole teaching session they were asked to complete the confidence rate scale again and for comments on the session. Data of the confidence level scores was analysed using Wilcoxon signed ranks test using SPSS version 19 (IBM), and p values <0.05 were regarded as significant.

Results
From 23 students we had 21 (91%) complete responses, one incomplete response and one questionnaire not returned. All of the students reported an increase in confidence scores post session. For the four students who had taken cultures before and the 17 who had not, their median confidence pre-session scores were 6 and 1. Post-session median confidence scores were 8 and 8 respectively. Analysis using the Wilcoxon signed ranks test showed that the increase in confidence scores was significant for the group who had not previously taken blood cultures (z score = 3.690, n = 17, p <0.001, two-sided), but was not significant for those who had (z = 1.841, n = 4, p = 0.066, two-sided). If both groups were analysed together then this elicited a statistically significant change in student confidence in taking blood cultures (z = 4.056, n = 21, p <0.001). Comments from the students included that they valued the session as they were able to practise the technique with feedback and that they found the demonstration video helpful.

Conclusion
We found that our teaching session combining theory and practical skills training has helped students become confident at performing this essential clinical skill.
The role and importance of self-regulation of emotion in medical students

D Whiting, J McKendree, J Henderson

D Whiting, Senior Lecturer, Hull York Medical School, Cottingham Road, Hull, HU7 6RN

It has been long recognised that emotions can have significant effects on decision-making. For instance, fear can cause — on some views, constitute — an appraisal of threat resulting in action, such as avoidance. It is recognised also that the influence of emotion on decision-making can be positive or negative. For instance, too much emotion can lead people to make decisions that carry high risk to themselves or others. Conversely the influence of emotion on decision-making can be positive; some theorists even suggesting that emotions are essential to effective decision-making.4,5

If emotions are tied up with decision-making, then we might expect there to be an important role for self-regulation of emotion. This idea is particularly compelling with regards to the medical setting where clinicians are regularly engaged in ‘high-stake’ decision-making; clearly the ability to manage emotion will be crucial if the right decisions are to be made. A recent review found between 15% and 75% of physicians are under severe stress or burned out due to emotional stressors.6 This has implications for medical education. For instance, it suggests that medical schools need to ensure students are given opportunities to develop strategies to identify, evaluate, and manage their emotions. There is evidence that medical students who are low in self-regulation strategies struggle more in learning about clinical reasoning.7

Self-regulation theory offers the potential to link cognitive and emotional aspects of decision making. Here, the importance is the awareness of an emotional situation and the choice to regulate it through different strategies including selecting or modifying the situation (often not an option for medical students), changing cognition, in particular, cognitive reframing or reappraisal, or response modulation which often happens after an event (e.g. dealing with a negative emotion by exercising), but also by suppressing ongoing emotional reactions at the time or later.8

Drawing on theory and empirical work, this presentation will explore the meaning and need for emotional self-regulation and how we might teach students about productive strategies for managing emotions. Possible links between emotional self-regulation and other concepts familiar to the medical education context, including ‘stress resilience’, will be discussed as well.9

References

Background and Purpose
Assessment and management of the acutely unwell patient forms an important part of the role of a junior doctor. Despite this, acute medicine teaching remains suboptimal in many undergraduate medical curricula\(^1\), and many newly qualified doctors lack confidence in managing acutely unwell patients\(^2\). At the Great Western Hospital in Swindon, we have piloted a programme of integrated acute medicine tutorials amongst undergraduate students. The aim of this study was to examine the utility and impact of these tutorials upon student learning.

Methodology
The teaching sessions were provided by 2 Clinical Teaching Fellows to students in groups of 8-9. In total, 34 students received the 10 tutorials. Each session combined a tutorial with a case-based, practical prescribing task. The programme was established in September 2012 and continued for 3 months, until the students’ finals examinations. We used Likert scales and ‘focus groups’ to assess students’ views about the teaching sessions. The sessions were continued until data saturation was reached. In total there were 2 focus groups on consecutive days, with 5 and 3 students respectively. The same facilitator ran the focus groups on each occasion, and the sessions were audio recorded. Written consent was obtained from each student to record and use their anonymised feedback.

Results
The mean score for the extent to which the tutorials improved confidence was 8.4/10. The self-assessed scores for the extent to which the tutorials improved prescribing skills and management of acutely ill patients were both 9/10. Qualitative analysis revealed that the tutorials were highly rated by the students for covering core topics in a non-threatening environment. This was the first time many of the students had practiced prescribing, and the tutorials improved their knowledge of drug doses, administration, and use of the British National Formulary (BNF). The integration of theory with a practical case-based task reinforced their learning and was useful for exam purposes and preparation for life as a Foundation Doctor.

Discussion and Conclusions
Integration of theory with a practical prescribing task was a useful tool in teaching medical students about assessment and management of acutely unwell patients. A combination of knowledge and skills-based objectives reinforced the students’ knowledge and improved their confidence in this difficult area.

References
At Sea with Disability! A typology of transformative learning, engendered in medical undergraduates working and living alongside disabled persons in a boundaried maritime environment

T Thompson C Lamont-Robinson, V Williams

T Thompson, University of Bristol

Background
The teaching of knowledge and skills is comparatively straightforward compared to the problem of “teaching” attitudes (1). In the UK, the baseline is set by the GMC and students learn, albeit passively, through the role-modelling of professional colleagues or through direct patient contact. These methods do not require the student to uncover or experiment with their attitudes, which can lurk unhelpfully “under the radar”. By contrast, the framework of “transformative learning” is used to describe changes in core beliefs about self and others through direct personal engagement in challenging situations. (2)

For 30 years the Jubilee Sailing Trust (JST) has been providing adventures under sail for disabled and non-disabled sailors who are buddied in pairs who support each other through the different phases of the voyage. In Bristol, we have been sending students on JST voyages for four years as part of our SSC programme and pilot data suggests the experience is transformative with respect to students’ attitudes to disability.

In this research we sought to conduct the first formal evaluation of this unique experience to understand if, to what extent, and how, it exemplifies the theory of transformative learning as part of a wider enquiry into ways of developing attitudinal learning in undergraduate medics.

Methodological Overview
The study consisted of a narrative analysis (3) of data collected before, during and after JST voyages in 2010 and 2011. Full ethical approval was obtained. The study sample consisted of (n=16) students on these voyages plus their buddies. Data comprised pre and post-voyage focus groups, on-board audio diaries, formal voyage narratives, artwork and (for disabled persons only) one to one interviews. Audio data was transcribed. Data is being analysed longitudinally and cross-sectionally in relation to the described attributes of transformative learning to create composite accounts of student experience.

Study Findings
Data remains under analysis and will be presented in the form of “transformative vignettes” that, together, create a composite (i.e. shared) narrative, illustrative of different transformative experiences. There is for instance the theme of “the perils of helping” in which students recount, sometimes painful, lessons in the empowerment and disempowerment of disabled persons through well-meaning attempts at assistance. Our presentation will draw on artwork and “live” audio-data to deliver a nuanced and rounded typology of transformative learning in this context.

Conclusions
Having discussed the transformative aspects of this particular intervention we invite discussion of elements transferable to the terrestrial mainstream curriculum.

References
An Evaluation of Student Assistantships; the Peninsula Medical School Experience

H Khalil, R Mole

H Khalil, Director of Clinical Studies, Peninsula Medical School (PMS), John Bull Building, Tamar Science Park, Derriford, Plymouth, PL6 8BU

Background
A student assistantship is a period during which a student acts as an assistant to a junior doctor with defined duties under appropriate supervision. Its purpose is to rehearse a student’s eventual responsibilities as an FY1 doctor. (TD 2009) The student assistantship is the 6th week of each 6 week block in the fifth and final year of the BMBS programme in the Peninsula Medical School. In total, all students have 5 weeks of student assistantship in preparation for their Foundation Year 1 placements.

Methods
Students were requested to keep a log of all clinical skills they carried out during this week and to shadow an Foundation Year 1 or Year 2 doctor in their clinical area. All students were requested to complete a Student Assistantship evaluation form at the end of their placement. A thematic analysis of the students’ free text comments was carried out in relation to what they thought was the best and worst thing about their student assistantship.

Results
84.7% of students strongly agreed or agreed that their student assistantships were useful. 89.5% strongly agreed or agreed that they were appropriately supervised. 91.6% of students had access to help when required. There were a number of positive and negative themes that emerged from the thematic analysis. 58.3% of students thought the student assistantships were ‘a great opportunity to practice being an FY1 doctor’. 42.6% of students felt the week was ‘not any different from other weeks’.

Conclusions
The student feedback suggests the PMS model of student assistantship is very useful and well supervised. There is a need for further provider training to address student comments

Acknowledgement
The authors would like to thank Dr Tracey Collett and Dr Karen Mattick for their help in developing the evaluation forms.

References
Remediation of At-Risk Medical Students: Theory in Action

K A Winston

K A Winston, Study Adviser, Bangor University, Bangor, Gwynedd, North Wales, UK

Background and Purpose
Previous work has shown that a programme that draws on a blend of theories makes a positive difference to outcomes for students who fail and repeat their first semester at medical school\(^1\). Exploration of student and teacher perspectives\(^2\),\(^3\) revealed that remediation of struggling medical students can be achieved through a cognitive apprenticeship within a small community of inquiry that motivates and challenges the students using a syllabus that engenders self-regulatory, metacognitive, and dialogic techniques in small stable groups. This community needs expert teachers capable of performing a unique combination of roles (facilitator, nurturing mentor, disciplinarian, diagnostician and role model), with high levels of teaching presence and practical wisdom. Yet, despite convergent opinions of participants, significant differences were found between outcomes of students working with experienced and inexperienced teachers\(^3\). Thus, the current study explores the actual practice of teachers on this remediation course, aiming to exemplify elements of this fledgling theory of remediation and explore differences between teachers.

Methodology
Since remediation is a complex process, and it is in the classroom context that the interactions that constitute complex systems emerge\(^4\), this practice-based research has focused on direct observation of classroom teaching. Over twenty hours of small group sessions have been observed, recorded, and transcribed. Drawing on ethnography and sociocultural discourse analysis\(^5\), this talk-in-context is used to demonstrate how the various elements of successful remediation described above actually play out in practice, highlighting aspects that are most effective, and identifying differences between experienced and novice teachers.

Results
Sections of talk are presented and interpreted in the context of a theory of remediation. A thick description of classroom phenomena exemplifies some core teacher roles, illustrates teaching opportunities missed by inexperienced teachers, and establishes the importance of social regulation\(^6\) in small group learning.

Discussion and Conclusions
The importance of classroom discourse as a vehicle for teaching and learning in remediation contexts is shown. This work clarifies the kinds of behaviours that embody effective remediation, and thus enables enactment of this practical theory in other contexts.

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Investigating students’ perceptions of professionalism

R Knox, C Robertshaw, M Jones, R Charlton

R Knox, Clinical Lecturer, C39 Division of Primary Care, University of Nottingham Medical School, QMC. Nottingham NG7 2UH

Background and Purpose
Medical bodies across the globe are keen for professionalism to be a key part of undergraduate curricula.\(^1,2\) In the UK, medical schools are required to integrate the teaching and assessment of this domain and give it as much importance as traditional biomedical and clinical aspects of the curriculum.\(^2,3\) In order to facilitate this process, it has been suggested that each institution should agree their own definition of professionalism.\(^4,5\) The medical school at the University of Nottingham is currently reviewing its curriculum in light of GMC recommendations.\(^4,5\) In this pilot study, we explored current students’ perceptions of professionalism, their accounts of professional (or unprofessional) behaviour experienced thus far, and their feelings regarding local professionalism programmes.

Methodology
Three focus groups were convened comprising clinical medical students in their penultimate and final years of study. These subjects would have had greater exposure to the curriculum than students in earlier years. Some of the focus group questions were similar to those posed by Jha et al. to allow comparison of results from another school.\(^5\) Focus groups were recorded, transcribed and analysed for emergent themes using a constant comparison approach.

Results
Analysis is on-going, and full results from this study will be presented at the conference. Initial themes of analysis include discerning when a professional role commences and the phenomenon of medical student as ‘sub professional’. Perceptions of unprofessional behaviour were also discussed, as were students’ coping mechanisms on encountering such behaviour.

Discussion and Conclusions
There is still much debate about the best way to teach and assess professionalism, yet patients understandably expect to be treated by clinicians who behave in a professional manner.\(^6,7\) Having a greater understanding of when and how students view themselves to be ‘professional’ will guide those planning curricula, and facilitate the passage of future students towards true professionalism. If we are expecting students to challenge behaviour or question practice, for example, how are they empowered to do so? Yet again, the hidden curriculum is highlighted as an important aspect of a student’s education.\(^5,9\) Overtly exposing an institution’s hidden curriculum could be a powerful teaching tool for students and faculty alike. Understanding more about our students’ experiences and perceptions of professionalism will help us to realise the challenge to ‘nurture and sustain’ this important aspect of students and doctors alike.\(^7\)

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Exploring students' motivations for undertaking the ‘Following My Footsteps’ programme – a novel approach to teaching in undergraduate paediatrics

M Kingsbury, S Worton, J Horsburgh

M Kingsbury, Head of Educational Development Unit, Imperial College, London

Background and Purpose

“Following my footsteps- family case study” is a new innovative course designed by the department of paediatrics at Imperial College, London.

Year 2 medical students are attached to a pregnant woman and follow the infant and family development through to year 5 of the MBBS course. The aim of the programme is to provide students with the opportunity to build a long term relationship with a family and to observe the impact on a child’s health and development. Students meet with the family 3 times and attend 3 tutorials over the course of a year. The programme is not compulsory and students were asked to apply by submitting a written statement outlining their reasons for wanting to join the programme.

The aim of this study was to identify students’ initial motivations for taking part in the programme. These would then be fed back to the tutors in order to help them facilitate the associated tutorial sessions. Congruence between the students’ motivations and the perception of students’ motivations by the tutors was also investigated.

Methodology

A grounded theory approach to the analysis of the students’ applications was undertaken by all the researchers. A subset of these application statements were analysed individually before themes and codes were decided upon. These were then applied to the remaining statements.

A focus group with tutors will then be conducted in order to ascertain how they respond to the students’ motivations and to explore their own motivations for taking part

Results and discussion

Four themes were identified from the application statements. These were

Learning – empathy or wanting to develop ‘soft skills’.
Learning – learning or wanting to learn more generally.
Strategic – recognising that the programme was a unique opportunity/professional development.
Strategic – wanting to pursue a career in paediatrics.

Some statements contained elements of all of these themes, whilst others focused primarily on one or two. These were particularly the case where students were motivated to pursue a career in paediatrics or related specialty.

Conclusions

Students clearly recognised the uniqueness of the programme and, despite a very full curriculum, wanted to access both the strategic and educational benefits of the programme.
What are the drivers and barriers to students accepting a web-based virtual patient technology?

SJ Corry, RS Patel, J Acheson, S Carr

SJ Corry, Emergency Department, Leicester Royal Infirmary, Leicester LE1 5WW United Kingdom

Background and Purpose
Blended learning describes the use of face-to-face teaching and learning technologies to deliver education, however the acceptability of new technology among healthcare professionals is low1. Although the drivers and barriers for accepting new technologies in clinical workplace are predictable, a conceptual model for explaining acceptability in the context of learning technologies is lacking.2 The aim of this study was to explore the usefulness of the Technology Acceptance Model (TAM) for understanding the reasons for (non-) engagement with a web-based VP technology called Virtual Ward3. The research question was "to what extent does the TAM explain the drivers and barriers to students using Virtual Ward?"

Methodology
Students rotating through the cardiorespiratory module in Phase 2 of the MBChB curriculum were given access to Virtual Ward. Participants were presented with one VP for each week of the seven-week placement. Participants were invited to a focus group discussion at the end of the placement to discuss their experience of Virtual Ward. The transcripts of the discussion were transcribed verbatim and analysed using framework analysis. Data on number of cases started but not completed, time spent on the resource as well as performance on the case was also collected to triangulate the findings from the focus group.

Results
The greatest driver to using Virtual Ward was the realism of VPs to real-life patient complaints. Students perceived VP cases also presented the challenge of a ‘real-life’ clinical enquiry and the interactivity or intuitiveness of the resource created this perception. The perceived time taken to ‘see’ a VP, or ‘finding time’ to access the software in the first place was the greatest barrier for students not accessing the software. Time was also an issue for participants who used the software; however they believed a lack of expertise with technology was a greater barrier. Interestingly usability issues were perceived as a lack of ability, whereas the true problem was located to software not the student.

Discussion and Conclusions
The TAM provides a useful framework for predicting the common drivers or barriers to adopting new learning technologies in the context of undergraduate medical education. The perceived time taken to access, use and learn from a technology is an important influence on student behaviour; therefore developers need to pay particular attention to minimizing usability issues, providing training and integrating VPs with existing curriculum resources in order to increase student acceptability. Further research should investigate the application of the TAM to VP acceptance across different year cohorts of undergraduate students.

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Exploring medical student clinical learning behaviours - Should we be redirecting our resources?

G Margiotta, G Torlot, M Cengarle, T Stonier

G Margiotta, 4th Year Medical Student, University of Bristol, 47a Whiteladies Road, Bristol, UK, BS8 2LS

Background
It is well established that medical students find the transition into the clinical learning environment stressful. Stress could be ameliorated if medical schools provided teaching that is better suited to how today’s medical students approach clinical learning. This requires up-to-date knowledge on how students prefer to be taught and the resources that they use in their private study. This study aims to provide this information so that medical schools can target specific student learning behaviours and redirect resources in order to improve their delivery of education.

Methods
75 medical students in their 3rd year of study completed a survey at the end of their first clinical attachment. This was a pilot cross-sectional survey that was designed to gather quantitative and qualitative data regarding how students found the transition to clinical learning, how they prefer to learn in the clinical environment and the types of resources they used on clinical attachments.

Results
93% of students thought that clinical learning is different to pre-clinical learning and 49.3% of students found the transition to clinical learning stressful. 78.3% of students rated bedside teaching as their favourite method of clinical teaching over small group tutorials or lectures. 49.2% of students preferred teaching from an F1/F2 whereas registrars, consultants, and older medical students were favoured by only 24.6%, 20%, and 6.2% of students respectively. 78.3% of students said that seeing patients was the best way to learn on clinical placement rather than the internet, textbooks or mobile applications. The internet was preferred for private study and Wikipedia was the most popular online resource with 64.9% of students using it frequently; this superseded the use of ‘Blackboard’ or medical student and patient support websites.

Discussion and conclusions
This study reaffirms that many students find the transition to clinical learning stressful and more can be done to facilitate the transition. Unsurprisingly students favoured bedside teaching, but medical schools should be guided by the finding that they prefer to be taught by junior doctors over senior members of staff. The internet has overtaken textbooks as the most commonly used resource in private study which has led to a growing use of unregulated sources of information such as Wikipedia. It may be beneficial for medical schools to consider these findings when updating their clinical teaching programmes in order to optimise the quality of student education as well as the transition to clinical learning.

References
Learning in teams to work in teams - Integrated teaching in general practice

J Buckley, G Emblen, C Eltringham, A Duhs, J Devries, J Benson

J Buckley, Director of Medical Education, Central & Southern Qld Training Consortium, (part of the Australian General Practice Training Program), Brisbane, Australia

Background and Purpose
Within the Australian General Practice Training Program there has been discussion and ad hoc attempts at vertically integrated training for the last decade ¹. Work has been done to investigate and stimulate vertically integrated teaching at the practice level ². With an increased emphasis on teams in General Practice and increased opportunities for multi-professional learners in General Practice we have investigated taking team-based learning into General Practice Training Practices whereby all staff can be meaningful co-learners.

Methodology
For this project emergency scenario training was chosen as an education activity relevant to all staff. The scenario training would be delivered within the practice using the practice’s own staff, processes, facilities and equipment. The intention is that this will be more powerful, effective and inclusive learning than simulation centre learning. The scenario would run from presentation at reception to handover to ambulance personnel. The scenario would be delivered by using a portable simulation mannequin and recording of the scenario would maximise feedback and discussion opportunities. Skilled educators would monitor and support the scenarios, but not assist nor participate. Whole group debrief would be conducted by a skilled GP educator facilitator. While the educational tool was an emergency scenario the real focus is group multi-professional learning

Results
At the time of abstract submission we have progressed from equipment purchase and scenario development, faculty training and in-house trial to our first in-practice pilot. By the time of the conference we anticipate that we will be able to report on this development phase as well as at least 4 in-practice training sessions with feedback from all levels of participants.

Discussion and Conclusions
The in-house pilot was successful, run spontaneously at a staff training day. The initial pilot was well received by all participants and highly valued by the training practice. This appears a valuable way to support training practices and to encourage a team approach to learning in the practice. It should lead to a better understanding of how practice teams work and increase effectiveness by discovering systemic problems encountered at the practice level during the scenario.

References
Getting away with murder… A novel way to introduce mental illness and its symptoms to 2nd year medical students

B Lomas, Z Schofield, M Langley, G Doody

B Lomas, Clinical Lecturer in Psychiatry, Institute of Mental Health, University of Nottingham, Nottingham, United Kingdom

Background and purpose
In light of the current recruitment crisis in psychiatry, a module introducing the specialty to medical students earlier in their education was developed with the hope of making psychiatry more appealing¹.

The researchers devised this exercise for second year medical students as part of a new module “Introduction to Psychiatry”. The aim was to generate in groups a discussion whereby the students would explore what type of symptom constitutes a mental illness.

The students’ knowledge would essentially be that of a lay person and would be subject to the prejudices of the general population². We exploited this and required that they imagine a scenario in which they had committed a crime of passion – killing someone whilst very angry with them, and asked them to conceive of a mental illness that would mean they would be taken to a hospital rather than prison - a perceived softer option. They were to instruct an actor to display this "syndrome" in a video recorded interview with a forensic psychiatry trainee (ML).

Methods
We wished to explore the effectiveness of this exercise as a method of opening up the issues of stigma and lack of general population awareness of the nature and effects of mental illness. Data on the success of the pilot session was collected in three formats;

- Qualitative free text feedback was collected from student participants
- Reflective feedback from the session coordinators (BL, ZS)
- Video recording of the interview component of the session

Results and Discussion
Themes emerging from the medical student and coordinator feedback examining the experience of this exercise will be discussed. There will also be opportunity to view the video recording of the exercise in action.

References
Medical student prescribing in the workplace (pre-prescribing): Implementation and evaluation update

SE Smith, E Dearden, VR Tallentire, HS Cameron

SE Smith, Honorary Fellow in Medical Education, Centre for Medical Education, University of Edinburgh, Edinburgh, UK

Background and Purpose
UK medical graduates must be able to “prescribe drugs safely, effectively and economically”, however recent evidence suggests that they are poorly prepared to do so. Previous studies have suggested that prescribing might best be taught in the workplace setting. A process which allows medical students to write prescriptions under supervision in the workplace (pre-prescribing) has been developed and implemented. The aim of this study was to expand the pre-prescribing project and use the enlarged cohort to further assess the safety of the process.

Methodology
Pre-prescribing was originally implemented in NHS Fife. Expansion throughout other hospitals in South East Scotland was undertaken in a stepwise fashion with involvement of clinical governance committees and multidisciplinary input. The safety of the process was assessed by auditing pre-prescriptions against local prescribing guidelines. The quality of medical student pre-prescriptions was compared with prescriptions written by doctors on the same wards. This large audit was coordinated across various Health Boards.

Results
An update of the expansion of pre-prescribing will be presented, together with a revised strategy for implementation of the process. The safety audit will be presented in the form of graphs and tables. Differences between doctors’ prescriptions and students’ pre-prescriptions will be examined, as well as differences between Health Boards.

Discussion and Conclusions
The successful expansion of the pre-prescribing project in hospitals throughout NHS Lothian and NHS Borders suggests that this is a feasible and sustainable way of providing medical students with workplace-based prescribing experience. Initial results of the safety audit show that there is relative uniformity between Health Boards, suggesting that the pre-prescribing process is undertaken in a similar manner in all areas. Results also suggest that countersigned pre-prescriptions may be of higher quality than prescriptions written by doctors. Possible explanations for this include the fact that medical students have more time to write prescriptions, are more cautious when writing prescriptions, are more likely to seek help and such prescriptions are subject to greater scrutiny having been both written and then checked prior to countersignature. This study provides further evidence for the safety of pre-prescribing as a mechanism by which students may develop prescribing expertise through workplace based learning.

References
Linking workplace and workshop activity: Teacher education courses for doctors in postgraduate training
V Brook, R Robinson, E Hawkins

V Brook, Kent, Surrey and Sussex Deanery

Background and Purpose
These innovative short courses have been developed through collaboration between Kent, Surrey and Sussex (KSS) Deanery’s Education Department and the Heads of School for Surgery, Medicine, Anesthetics and Obstetrics and Gynaecology (O & G). The courses include face to face workshops with linked pre- and post- workshop activities. The aim is to develop trainees' understanding and practice of an integrated model of teaching, learning and assessment. The workshops encourage participants to explore the principles underpinning their teaching and learning encounters rather than to approach teaching as the acquisition of a defined set of skills.

Rationale
The various postgraduate specialty curricula include, the requirement that postgraduate trainees develop the ability to ‘teach and train’, ‘to progressively develop the ability to teach to a variety of different audiences in a variety of different ways’ and ‘to progressively be able to assess the quality of the teaching’. The KSS courses have been designed to develop educators who can support learning in clinical settings as part of their development as critical and reflective professionals.

The Course
Course participants are asked to prepare for the seven hour face-to-face workshop by observing teaching that is being undertaken in the real-life clinical setting (e.g. in theatre, clinic, a ward round, or other settings1). They are provided with an observation framework and bring their notes to the workshop. At the workshop, they engage in a range of activities which draw on their existing experiences of, and critical reflections2 on, learning and teaching in clinical settings. They consider the relevance of educational theories, (e.g. social constructivism3) and through differing types of small group work, they experience the potential of interactive learning activities4 and think critically about the process of giving and receiving spoken feedback5 as part of formative assessment6. Participants also plan7 a clinical teaching session which they will carry out and evaluate as part of the post-course task. Participants then write a reflective evaluation of this planned teaching and learning encounter for discussion with their educational supervisor and inclusion in their e-portfolio.

Outcomes and further research
Feedback from course participants has been exceptionally positive and it was agreed to continue with the short courses for the next cohort of core trainees starting in August 2012. The course offer has also been extended to other specialty trainee (Higher Specialty, O & G, and Anaesthetics) within KSS since January 2013. The feedback has been used to develop the courses. For example, we have incorporated an additional activity to support trainees in their role as assessors. We have also integrated discussion and review of the post course task into the cycle of educational supervision. Further research is planned to evaluate the use made by participants and educational supervisors of post-course tasks and the impact that critical reflection on these activities has had for participants’ development as clinical educators.

References

Building Tomorrow’s Doctors: A Paediatric approach to Student Assistantships

A Revolta, W Watson, H Bishop

A Revolta, Clinical Teaching Fellow, Division of Medical and Dental Education, School of Medicine and Dentistry, University of Aberdeen, Aberdeen, UK

Background
Undergraduate UK medical students must undertake a “Student Assistantship” during final year placements1. These are primarily educational experiences which increase preparedness for Foundation doctor practice2. In paediatrics, relative to adult medicine, the range of practical tasks students do, and the subsequent experience gained, is more limited. We therefore wished to introduce a Student Assistantship model that delivered an optimal educational experience whilst ensuring patient safety. We recognised the observed benefits of multi-source feedback (MSF)3 and work place based assessments4 in post-graduates and wished to explore their use with undergraduates.

Methods
12 Final year students completed an 8 week medical paediatric placement in the 2011-12 session. This included 2 single week Assistantships in the medical ward and the acute assessment unit, the latter introduced 2 night shifts. During their assistantships, students sent out 4 MSFs and completed 2 written case based exercises. At the end of the attachment, they met block supervisors to complete a structured debrief comprising;1 cased based discussion (CBD), review of MSFs and listing action points for subsequent placements. Students were invited to complete a 5 point Likert- scale questionnaire evaluating the Assistantships’ objectives and components. Data was entered into SPSS and descriptive analysis carried out.

Results
83% of students returned the questionnaire. All agreed with the structure and format of the Assistantships. All agreed or strongly agreed that night shifts were useful and all disagreed with them not being appropriate for undergraduates. All students reported the CBD to be a constructive educational experience and a positive addition to the block. 90% agreed with the format used for MSF. 90% or more gained experience with management discussions, prescribing under supervision, documentation and prioritising patient tasks. 40% disagreed that their opportunities for practical procedures were sufficient and 30% with their opportunities for managing acutely unwell patients. 90% of students felt better prepared for their FY1 post and 80% disagreed with paediatrics not being an appropriate environment for Assistantships.

Discussion and Conclusion
Medical paediatrics is positively accepted by students as a placement for their Student Assistantship. Introducing students to additional WPBAs, MSFs, night shift and an educational debrief meeting was well received, provided opportunity for structured feedback and enhanced the educational experience. This is a viable model for senior undergraduate paediatric placements but further work is needed to increase procedural experience.

References
2. General Medical Council, Clinical placements for medical students, Advice supplementary to Tomorrows Doctors (2009), pp12-15, Feb 2011
The natural progression of peer assisted learning: peer led education

L Smith, P Lawrence, TK Lee, A Maku, T Morris, OJ Ruscombe-King, K Sharma

L Smith, Undergraduate MB ChB medical student, Bristol University, England

Background
Peer assisted learning (PAL) is defined as “the development of knowledge and skill through active help and support among status equals or matched companions”\(^1\). It has been established as an effective teaching strategy, albeit as an adjunct to more traditional teaching methods\(^2,3\). It has the benefits of feeling less formal for students and most crucially tutees report ‘Tutors understand the difficulties we have with certain topics’\(^3\). This introduces an intriguing educational paradigm. PAL tutors intimately understand the problems faced by the tutee, having been in their position only months prior; however their utilisation is restricted to being complimentary rather than being able to form an integral component of the curriculum. It is not foreseeable for student tutors to replace clinical academic tutors in the classroom or on the wards but a significant proportion of education now occurs outside the hospital setting. Multimedia resources such as the Internet are expanding the avenues of teaching and making previously unattainable goals, such as making a book, a realistically, financially viable, achievable goal, without needing to be a highflying academic. As part of a special study component at Bristol Medical School, six clinical students wrote, designed and edited a book on differential diagnosis with their tutor as guarantor. The selling point of the text was the unique way in which the information was presented. It was designed and made by students, for students.

Methodology
The book was sold for £1 to cover publication costs and a questionnaire survey was emailed to all purchasers. We elicited their views on price, book quality and most importantly content. We also assessed their opinions of whether peer led education could be a successful educational strategy and if so in what context.

Results
Results from the questionnaire will be presented, as will examples of the peer led book project.

Discussion
Peer assisted learning is educationally beneficial to both tutees and tutors\(^4\). The natural progression of this strategy is to develop into peer led education. The clinical environment setting should still be accountable to and hence led by a clinical academic tutor however there is ample room for students to lead education outside the clinical classroom, through books and multimedia platforms.

References
An Analysis of the Effectiveness of Tutor-Supported Academic Discussion Forums for Medical Students using Telecommunication Technology

NC Taylor, AK Brown, J McKendree, J Henderson

N Taylor, Clinical Fellow in Medical Education and Honorary Senior Undergraduate Tutor, Hull York Medical School (HYMS), University of York, Heslington, York, UK

Background and Purpose
HYMS Year 3 and 4 students rotate through speciality “blocks” delivered at multiple sites across a wide geographical area. An Academic Discussion Forum (ADF) teleconference is held at the end of each week of study. A clinical and/or scientist mentor facilitates this discussion. The purpose of the ADF is to enable students to share their learning experiences and ensure that weekly learning outcomes have been addressed¹. It has been noted that attendance at ADF’s has reduced and anecdotal feedback has reported mixed learning experiences. In addition, there is a lack of research into what factors in the design of an interactive teleconference may lead to a successful learning experience, despite evidence that teleconferencing can potentially be a successful method of teaching and learning²,³. The study aims to evaluate the perceptions of students and mentors involved in the ADF’s, and to explore what factors in the design and application may improve levels of student engagement and learning.

Methodology
This is the first phase of an action research project. Methods include six semi-structured interviews with 5 mentors and a phase coordinator, and three focus groups with 17 students. Coding was carried out using NVivo 10, followed by thematic analysis.

Results
Emerging themes include:
1. Advantages: standardization of student experience; identification of knowledge gaps; consolidation of understanding; cost-effectiveness – few mentors are required and students do not have to travel to a central location.
2. Barriers to engagement and learning: lack of visual stimulus both for teaching aids and non verbal feedback; distraction caused by students based in localities without mentor presence; variation in previous clinical experience causing repetition of subject material; poor student and mentor preparation. Many students find speaking at a teleconference daunting because they were unable to gauge others reactions.
3. Suggestions for improvement: introduction of visual stimulus using additional technology, for example video-conferencing; encourage student preparation through task setting during clinical attachments; self-identification of knowledge gaps through the use of blogs, reflective accounts, eLearning and formative assessment.

Other Considerations
Previous negative ADF experience affected ongoing student engagement, and in turn perhaps mentor engagement, leading to corrosion of this teaching method.

Conclusion
Teleconferencing solutions can be effective, but barriers exist that must be carefully managed and are not necessarily media related. Other interactive methods may help to reduce these barriers, but may not eliminate them without careful management, instructional design and integration.

References
The ideal student assistantship: responsibility under supervision

A Fullbrook, M Ross, A Jaap, E Mellanby, H Cameron

A Fullbrook, Centre for Medical Education, The Chancellor’s Building, 49 Little France Crescent, Edinburgh, Scotland, EH16 4SB

Background and Purpose

Many medical graduates feel underprepared to start work as a foundation year doctor\(^1\). Particular areas of weakness have been identified, such as providing acute care\(^2,3\), prescribing\(^4\), and dealing with responsibility and uncertainty\(^5\). In order to better prepare students, the General Medical Council (GMC) stipulated that final year medical students should undertake a student assistantship (SA) to act “As assistant to a junior doctor, with defined duties under appropriate supervision”\(^6\). The GMC has since clarified their expectations of the SA and provided a framework to evaluate the SA\(^7\). This study explores the experiences and opinions of participants in the first SA at the University of Edinburgh. In doing so, previously identified learning objectives (LOs) were refined, GMC SA evaluation criteria were critiqued, and features of the ‘ideal SA’ were examined.

Methodology

Students and foundation doctor supervisors were asked to complete questionnaires immediately after the assistantship. A six-point Likert scale was used to measure responses to a series of statements, including rating the importance of LOs. Free text responses were also sought. Later in the year, fifteen Foundation Year 1 (F1) doctors who had undertaken their SA at the University of Edinburgh participated in one of five semi-structured focus groups. Data were analysed thematically using an inductive approach.

Results

Students and supervisors rated the following LOs as most important: 1) care for acutely unwell patients 2) prescribe drugs and fluids 3) create and prioritise jobs lists. The SA was evaluated highly, but did not fully meet the GMC evaluation criteria, suggesting enhancements for the SA in Edinburgh, and also for the evaluation criteria themselves. The groups also discussed how the SA was perceived and prioritised by students, concerns about assessment and feedback from near-peers, and how they themselves hope to supervise the SA.

Discussion and Conclusions

For many students the SA provided useful procedural experience in a way similar to other clinical placements. However, it was particularly beneficial where they were following a single F1 doctor in the place of the student’s first job. This environment provided the conditions in which the student could ideally take responsibility for a small group of patients. Other advantageous aspects included access to the electronic results system and pre-prescribing\(^2\). There is widespread support for student assistantships amongst students and F1s on condition that it provides real insight and experience relevant to their first postgraduate job.

References

Interactive Medical Educational Tutorial (IMET) – An innovative teaching method proves its popularity and effectiveness

C Leitner, J Beasley, H Watkin, G Bradbury, S Sajid, C Nath, R Carter, S de Silva

C. Leitner, Teaching Fellow, Russells Hall Hospital, Pensnett Rd., Dudley, DY1 2HQ

Background and purpose
Exposure to certain learning opportunities has been adversely affected by the introduction of the European Working Time Directive (EWTD) and the resulting reduction of junior doctors’ working hours. This has increased the demand for an alternative learning environment, thus the Interactive Medical Educational Tutorial (IMET) was developed. IMET simulates commonly encountered emergencies and allows the student to interact with a tutor as they work through a case based scenario rotating through 4 stations. Each station lasts 8 minutes covering an aspect of medical management. Constructive verbal feedback is given individually at each station and as a group at the end of the session. This tutorial is a small group, problem-based teaching method that provides a unique experience of ad-hoc formative assessment amalgamated with learning under time pressure in a simulated, theory-based case scenario.

Methods
For this pilot study we used a case based scenario which related to the management of an acute upper gastrointestinal bleed. Data was collected from October 2010 to November 2012 including feedback from 77 students. Students awarded global scores (“disagree”, “neutral” and “agree”) for content, execution and overall quality. Its impact on learning was also assessed objectively by conducting pre and one day post IMET multiple-choice question based tests. 10 questions were related to the IMET topic and 10 served as controls. Overall, 28 final year medical students sat the tests. Answers were scored with 1 if correct and 0 if incorrect, thus a total of 10 marks was awarded for IMET related questions and 10 for controls. The achieved mean marks of all participating students in both question groups were calculated for tests pre and post IMET session to compare the trend of knowledge acquisition.

Results
90-95% (70-73/77) of students agreed that the tutorial had good content, structure, adequate pace and length and allowed for interaction. 97.5% (75/77) felt it prepared them for future practice. Our study shows markedly higher mean improvement of performance in the group of IMET questions compared to controls, with mean marks of 1.75 (SD±1.4) versus -0.20 (SD±1.2), respectively.

Conclusion
IMET is a well-received teaching method which appears to be effective as suggested by improvements in post tutorial marks. It has received excellent positive feedback from a vast majority of final year medical students. IMET may complement on-the-job learning of future junior doctors and can potentially be adjusted for use in postgraduate education.

Reference
Promoting integration and transfer of concepts in Problem Based Learning (PBL): the evolution of an Eight Step PBL process

H Neve, K Mattick, K Gilbert, S Bull, N Spicer

H Neve, Director of Problem Based Learning, Peninsula College of Medicine and Dentistry, The Universities of Plymouth and Exeter, UK

Background and Purpose
Problem based learning (PBL) has always been a core element of the first two years’ learning at Peninsula College of Medicine and Dentistry (PCMD). Our PBL cases were originally developed in 2002 and neither the cases, nor the underlying philosophy, have been significantly reviewed until recently. In 2010 a decision was made to review the PBL programme.

Methodology
A literature review of educational theory and PBL, was undertaken and used by an interdisciplinary task group to decide upon the educational principles that would underpin the new PBL programme.

Results
At Peninsula, facilitators and students have historically used the Maastricht 7 step process\(^1\) to facilitate learning in PBL. Recent evidence highlights the importance of flexible scaffolding by PBL tutors to support student learning\(^2\). However, the 7 steps and much of the literature focus on the process of the first PBL tutorial\(^3\) where students develop and agree learning objectives. The purpose and processes that are needed to maximise the benefit of the subsequent feedback session(s) are rather neglected.

A particular risk of PBL is that the knowledge encountered within a PBL case may be trapped within a single context\(^4\), such that students are unable to retrieve this knowledge to solve a new problem in a similar or different context. We felt that the PBL scaffolding process needed to support students to think conceptually and to provide them with opportunities to transfer their knowledge to other contexts including the real world.

Consequently, we have redeveloped the seven step process to reflect current thinking about activating prior knowledge, working conceptually and the integration and transfer of knowledge.

Discussion and Conclusions
Based on this work, we now promote a new “Eight Step” process. This presentation will introduce and promote discussion about these eight steps and the rationale behind them. We will also share the initial evaluation findings from four pilot PPBL cases where these steps have been used.

References
\(^1\)Schmidt H.G. Problem-based learning: rationale and description. Medical Education, 1983, 17, 11-16
\(^3\)Hamdy H. The fuzzy world of problem based learning, Medical Teacher, 2008, 30, 739–741
\(^4\)Norman, G. Teaching basic science to optimize transfer. Medical Teacher, 2009, 31(9), 807-811.
‘ELEPHANT’ criteria; Do they make teaching more worthwhile, as well as more fun?

M. Keane, B. Shaw

M. Keane, Neonatal Unit, Liverpool Women’s Hospital, Crown St, Liverpool UK, L8 7SS

Background and Purpose
ELEPHANT criteria; (1) Encouraging Learning, (2) Entertaining People, and (3), Having a Nice Time, were proposed in 2010 as criteria to develop medical teaching that is more fun\(^1\). There is limited evidence but strong belief that teaching sessions incorporating these and similar attributes may be more worthwhile and effective\(^2\). This study aimed to assess whether learners associated the three ELEPHANT criteria with teaching that they felt was most worthwhile and also if encouraging, entertaining and enjoyable teaching was more memorable.

Methodology
This was a questionnaire-based study centred on a formal teaching programme for paediatric trainees over a 4 month period. Teaching attendees were asked to give contemporaneous feedback on all teaching sessions attended and score on a Likert scale whether they encouraged learning, were entertaining, were enjoyable and also how educationally worthwhile they had been. At the end of the teaching programme a further questionnaire was used to identify the most memorable sessions and to seek strategies that had been used in them that fulfilled ELEPHANT criteria.

Results
Two hundred and fifty-one questionnaires were returned for 46 teaching sessions. These demonstrated that trainees were highly satisfied with the teaching programme: median feedback score for ‘Encouragement’ 6 (Range 3-7), ‘Entertainment’ 6 (Range 2-7), Enjoyability’ 6 (Range 2-7), and ‘Educational-usefulness’ 6 (Range 2-7). Strong correlation was demonstrated between high ELEPHANT scores and high ‘Educational-usefulness’ scores at the time of teaching; Pearson correlation co-efficient R = 0.72, 0.61 and 0.76 for ‘Encouragement’, ‘Entertainment’, and ‘Enjoyability’ scores respectively (p <0.0001 for all). Fourteen questionnaires at the end of the programme identified 27/46 teaching sessions that were most enjoyed and/or considered most worthwhile. ELEPHANT scores for these 27 sessions were significantly higher than the scores given for those 19 sessions that weren’t identified (‘Encouragement’ (p<0.01), ‘Entertainment’ (p<0.01), and ‘Enjoyability’ (p<0.001)). Several strategies were observed by learners which increased ELEPHANT scores including strong engagement with the audience using an interactive style, focussing on recently encountered clinical topics, presenting information in a clear, interesting way, including a take-home message, creating a relaxing atmosphere without distractions, and including entertaining non-medical slides to break up the hard science.

Conclusion
There was a clear trend shown that learners find Encouraging, Entertaining and Enjoyable teaching to be more worthwhile. This seems intrinsically obvious although this study offers some evidence that this is indeed true and may stimulate teachers to actively incorporate ELEPHANT attributes into their teaching sessions.

References
Does a student resource improve knowledge about caesarean section?

CE Bond, JE Mears

C Bond, Specialty Trainee in Obstetrics and Gynaecology, Southmead Hospital, North Bristol NHS Trust

**Background**
To determine whether use of a standardised learning resource improves medical students knowledge about caesarean section

**Methodology**
Student learning during operating lists is both teacher and student dependent. We designed a learning resource to be completed during elective caesarean lists to help students fulfil relevant learning objectives. The study group comprised thirty-four Bristol University medical students on obstetrics and gynaecology attachment at Southmead Hospital. There was no formal teaching during the caesarean list.

A control group comprising 29 medical students on attachments in Taunton and Bath, were not given a learning resource to fill in, but may have received ad hoc teaching.

Knowledge gained and student attitudes about their learning experience was assessed using an anonymous online survey. Approval for the study was granted by the University of Bristol Faculty of Medicine and Dentistry Research Ethics Committee

**Results**
71.4% of students started the online assessment. 96.6% of these students using the proforma agreed that attending caesarean sections was educationally valuable, compared to 73.3% of students not using the resource.

Response rates for the multiple choice questions relating to preoperative and perioperative learning outcomes was 63.5%, 48.7% for the picture quiz and 54% for the postoperative and VBAC questions. Students who used the resource could more accurately answer questions relating to preoperative investigations (84.8% vs 75.7%), drugs which could be given during a caesarean to treat uterine atony (86.3% vs 70%) and name instruments used to perform caesarean whereas those in other units were unable to (72% vs 0%). Students using the proforma were able to more accurately place operative steps in the correct order (93% vs 85%), and were also able to recall better the quoted chance of a successful attempt at VBAC (77.3% vs 54.3%) and scar rupture during VBAC (77.3% vs 50%).

Interestingly there were fewer differences observed between the study and control groups students when answering questions relating to indications for caesarean (92.8% vs. 88.5%), risks of caesareans (91.2% vs 88.4%) and the correct route of administration of various drugs given during a caesarean (95.4% vs. 91.6%).

**Discussion and Conclusions**
Students who had used the learning proforma could answer questions about caesarean section more accurately than those students who did not have access to the resource. Use of a learning resource appears to enrich learning opportunities for students in theatre without requiring additional teaching time or staff.
Self–regulated Learning in Physical Examination Skills Development in the Later Years of an Undergraduate Medical Course

P Docherty, A Brown, J Henderson, J McKendree, N Taylor

P Docherty, Phase 1 Core Curriculum Tutor and Clinical Fellow in Medical Education Hull York Medical School, York UK

Background and Purpose
At Hull York Medical School (HYMS), physical examination skills are taught in the first two years (Phase 1) of the PBL-orientated course. The next two years (Phase 2) of the course which are predominantly based in clinical placement provide the opportunity for these skills to be developed and refined.

The study aims to explore this development and in particular to look at factors which facilitate or hinder self-regulated learning (SRL) in this area using the model of SRL described by White and Gruppen1 and based on work by Zimmerman2.

Methodology
The study is a sequential qualitative study using a purposive sample of 18 students overall in 2 focus groups and then 9 in-depth interviews. Diversity was ensured using assessment data to target students in performance levels underrepresented in initial recruitment.

The interviews use some of the features of narrative interviewing with students being encouraged to elaborate on examples of key events in their learning as a way of exploring some of the elements associated with White and Gruppen's model of SRL1.

Coding was carried out using NVivo10. This was followed by thematic analysis.

Results
Themes identified will be presented. Emerging themes include:
1. The critical importance of feedback after observation and increasing confidence in proactively obtaining this as the course progressed.
2. A gradual switch to longer term motivators related to qualification and being a competent Foundation Programme doctor.
3. Linked to changing motivators, the divergence of physical examination skills into both the practice of stylised routines for exams but also refinement into applied abbreviated skills targeted at particular clinical situations.
4. Despite significant early clinical experience, some transition difficulties around confidence in practising in clinical environments without direct supervision.
5. Explicit reflection and goal setting were noticeably absent although there was some implicit evidence that these were present in the background.

Discussion and Conclusions
Early indications from the analysis seem to indicate that as motivation alters from passing examinations towards working as a junior doctor, physical examination skills are refined and abbreviated applied methods are developed. A gradually increasing process of seeking feedback after direct observation underpins this although confidence in working without direct supervision is low at the start of this phase confirming some of the transition issues noted by Prince3.

References
Medical Student Use of Intended Learning Outcomes to Support Student Learning

R I Norman, S Brooks, J Scott, M Rawlinson

R I Norman, Director of Medical Education Research and Development, Department of Medical and Social Care Education, University of Leicester. Leicester, United Kingdom

Background and Purpose
Intended learning outcomes (ILOs) are prescribed within all academic medical training programmes with the aim of defining the attainments to be achieved by students at all stages in their programme of study against the scope of the curriculum specifications¹. It is assumed that students use published ILOs to frame their studies and to guide self-assessment of their progress². There is little evidence on how medical students engage with ILOs. This study aims to identify the ways in which students perceive and use ILOs in their personal study.

Methodology
Use of ILOs was investigated by questionnaire survey of medical students in all years of the four and five-year medical courses at Leicester Medical School.

Results
Survey responses were returned by 432 medical students. The majority of students (80%) agreed that learning outcomes were generally a useful learning aid and that they cover the range of subject material that may be assessed (78%). The proportions of medical students reporting that ILOs become more useful and that they engage more with them with course progression fell in the senior years, although a greater proportion of students reported supplementing ILOs with their own in later years. While a majority of students agreed that ILOs specify the level of learning in each topic area (61%) and the level required to pass an assessment (57%), a significant minority disagreed with both statements (12%, 25%). Less than half of students agreed that they were usually able to understand easily the depth of learning required by ILOs (39%). A similar bimodal distribution of responses was recorded for agreement that ILOs can only be fully understood at the end of a module when the total course/module content is known (48%). Two thirds of students reported that it is possible to underestimate the level of learning required to pass an assessment (60%) and a proportion reported that ILOs could even restrict their learning (19%). Students generally disagreed that ILOs over fragment knowledge required for their qualification and generally indicated a preference for their publication in more detail. ILOs were reported to be most useful after a teaching session and when revising.

Discussion and Conclusions
Most students find ILOs to be useful learning tools, although report a lack of clarity in regard to understanding the level of learning required for assessment. More attention is required in the framing of ILOs to specify accurately the level of learning expected.

References
Impact of Extended Student Assistantships (ESA) at Great Western Hospital, Swindon

A Hawkins, V M Taylor, M Masiello, K Jones, A E Stanton

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

Background and Purpose
A brief shadowing period for newly qualified doctors prior to starting work as a foundation doctor has been shown to reduce error rates by 52%1. In the academic year 2011-2012, medical students based at the University of Bristol Academy in Swindon undertook an Extended Student Assistantship (ESA). This involved a 10-week period of shadowing of a junior doctor as part of their ‘preparing for professional practice’ attachment. The aim of this study was to ascertain the extent to which the programme improved their confidence and developed their knowledge, skills and attitudes in line with the GMC’s ‘Duties of a doctor’2.

Methodology
Thirty-six students completed the ESA at Swindon between January and March 2012. We contacted the 27 students for whom we had a forwarding email address with a link to an online survey in October 2012. There were 13 respondents (48%), all of whom had been practicing as junior doctors for 2 months. Questions comprised semantic differential scales and free text boxes. Descriptive statistics and qualitative analyses were performed. Full ethical approval was granted by the University of Bristol Ethics Committee.

Results
Participants were asked about the extent to which the ESA improved their confidence in a number of core aspects of life as a foundation doctor (1 = not at all, 7 = greatly). The ESA improved confidence in prescribing (mean confidence score 5.1/7), venepuncture (5.5/7), cannulation (5.3/7), writing a discharge summary (5.5/7) and clinical documentation (5.2/7). Students felt more confident working in a ward environment (5.2/7) and gained an improved understanding of the roles and responsibilities of an F1 doctor (5.1/7). Qualitative themes were that students particularly enjoyed being attached to a specific doctor, experiencing ‘day-to-day’ jobs on the wards, doing ‘on-call’ commitments and night shifts.

Discussion and Conclusions
Overall, the ESA improved confidence in a number of key aspects, and was valued by the majority of students. There was some variation between students as to which areas were most helpful, depending on the grade of doctor they shadowed and the job they were undertaking. Our findings suggest that an extending period of ‘shadowing’ is a useful resource to aid the transition from student to doctor.

References
Technology Enhanced Learning (TEL)
Are the birds still tweeting? Or is there a better way of delivering medical education by social media?

T Stonier, M Cengarle, G Margiotta, G Torlot, M Harrison

T Stonier, 4th Year Medical Student, University of Bristol, 49B Whiteladies Road, Clifton, Bristol, UK, BS8 2LS

Background and Purpose
Twitter is a micro-blogging phenomenon that has swept the world over the last seven years.¹ Users have profiles from which they are able to ‘tweet’ short messages, which are seen by their followers. Last year a group of medical students from the University of Bristol set up a Twitter Profile named @askamedic to assess its use as a medical education tool. This profile was intended to ‘tweet’ advice, medical news and provide a forum for discussion of medical topics. The purpose of this study was to assess the usage of @askamedic and Twitter amongst medical students one year later. A further aim was to gauge whether social media has a place in medical education and which medium best suits students’ learning.

Methodology
A sample of medical students across years was asked to complete a pilot cross-sectional survey in order to collect both quantitative and qualitative data.

Results
56 students completed the survey; 92.9% own a smartphone compared with 86.6% last year. 35.7% had a Twitter account, up from 22%. Of those with a twitter account 18.2% used it daily, down from 27.8%. 22.7% of our sample population followed @askamedic compared with 65%. ‘Tweets’ were found useful by 40% of followers, compared with 60% last year. 46.4% of students agreed that twitter was a good medium for medical education, a rise from 33.3% last year. 85.7% of the sample thought that there is a place for social media in medical education - with 96.4% of students thinking that Facebook would be superior to Twitter or other social media sites. 100% of the sample had a Facebook account and used it daily.

Discussion & Conclusion
This study shows that there has been an increase in the number of Twitter users with a concomitant drop in day-to-day use. Advances in social media are changing the face of medical education.² Despite the early success of @askamedic there has been a fall in the number of followers and their rating of the service. Whilst students clearly believe that there is scope for social media in medical education, these results suggest that Facebook is a better placed medium for its delivery. Consequently both @askamedic and other medical student support groups should refocus their efforts to use social media when providing student-friendly teaching.

References
Virtual Interactive Teaching And Learning (VITAL) for doctors

R Igbokwe, S Potter, M Thomas

R Igbokwe, Education Fellow, Heart of England NHS Foundation Trust, Bordesley Green East, England, UK

Background and Purpose
The transition from medical student to doctor is a critical period for new doctors with potential implications for patient safety1. VITAL for Doctors is an innovative online learning and assessment programme that aims to enhance transition from student to doctor, promoting excellence in patient care. It consists of 11 modules on key topics relevant to Foundation doctors. The Deteriorating patient; Better nutrition and fluid management; Safer medicines; Smarter antibiotics; Preventing Healthcare associated infections; Safe early discharge; Communication, concerns and complaints; Falls; Safe surgery; Delirium, Dementia, Depression and Dignity; and Diabetes. VITAL is being developed for FY2 doctors as part of the Health Education England, Better Training Better Care initiative.

Methodology
Each module has clearly defined learning outcomes, concise reading materials ('Quick guides') short audio podcasts and an assessment question bank. VITAL is hosted on a Moodle Virtual Learning Environment (VLE) allowing flexible access, promoting ‘Just in time learning’. Using social media we deliver short educational messages to reinforce the learning materials and encourage collaborative learning. Online assessments linked to the learning outcomes repeatedly test and develop knowledge. To evaluate the impact of VITAL we designed a multifactorial intervention, using a Before and After study. Our intervention group include F1s based at one site, who had access to the learning materials from July 2012. A control group of F1 doctors based at other Trust sites only had access from November 2012. Assessments were carried out during extended induction (July 2012), September 2012 and January 2013 (at time of writing). Results have been used to identify top performers and reward excellence, and allow identification of and early intervention for potential doctors in difficulty.

Results
Analysis of VITAL assessment scores showed no statistical difference between scores for the control and intervention group at their first assessment. At the second assessment the scores for the two groups showed moderate divergence. Mean (SD) scores for control and intervention groups respectively were 49.5% (5.9) versus 53.7% (8.8) [two tailed t-test p=0.01]. Quantitative and qualitative feedback of F1’s views of VITAL will also be presented.

Discussion and Conclusions
VITAL can be used to enhance Foundation doctors knowledge in key patient safety areas. It allows long term, iterative assessment of core patient safety knowledge and can be sustainable and adaptable to changing imperatives in patient care. ‘Lessons learnt’ from VITAL will be fed back into the development of additional VITAL work streams.

References
Using Twitter to teach Public Health to undergraduate medical students - #fluscenario

E J Hothersall, A Manca

E J Hothersall, Clinical Research Fellow, University of Dundee, Scotland, UK

Background and Purpose
Public Health teaching was integrated into a systems-based medical curriculum re-design, where students learn basic sciences within related systems. We introduced Twitter chats within the first year Respiratory block.

Methodology
We described four stages of an influenza pandemic: background/early warnings; early pandemic; late pandemic; lessons learned/future planning. Scenarios were posted on the medical school blog and Twitter, every 4-7 days. Students were required to contribute through blog, Twitter or email.

Tweets were recorded using a Google spreadsheet. We used TAGSExplorer¹ for an interactive visualisation of the conversation. Evaluation was via routine feedback for Respiratory system teaching and Google poll.

Results
The cohort was 184 students. Students took part via twitter chat (n=160, 87.0%), blog only (n=16, 8.7%) or email only (n=3, 1.6%). We recorded 2,987 Tweets using the hashtag #fluscenario, which included contributions from staff and students outside the cohort, including some at other medical schools. Mean number of Tweets per student was 13.8 (range 1-88). Peak Twitter activity was in the first 12 hours, with >1,000 Tweets within 8 hours of launching the first scenario.

Despite engagement from the majority of students, feedback was mixed: some students “did not understand the point of the exercise”. There were concerns about using a public medium for educational purposes; complaints about character limits and conversations being difficult to follow. Conversely, students enjoyed communicating directly and quickly with tutors, using new technology to enhance learning, and saw learning from one situation (i.e. influenza) was applicable to other diseases (e.g. tuberculosis).

99 students completed the Google poll (61.9% of those participating). Only 12% agreed that the structure was helpful to their learning whilst 54% disagreed. Strikingly, students did not feel that using Twitter helped to consolidate their learning (47%), and did not want to use Twitter for something similar in the future (57%).

Discussion and Conclusions
We created an online environment for a complex and hard to teach area of Public Health. Student participation in Twitter chat was high, with considerable higher level thinking and interaction, building a community of practice² within their peer group. They seemed to be unaware of, or distrust, the educational value of the exercises. This is consistent with previous research, although repeat exposure may help to build greater trust in the medium³. Future improvements to these sessions could include refining the use of Twitter, or using a forum without a character limit.

Acknowledgements:
#fluscenario is based on the original work by Mr Alex Talbott and Dr Chloe Sellwood, originally published on the #nhssm blog. We are immensely grateful to them for their help in this project.

References
Use of smartphones amongst final year medical students on clinical attachments: practice, perceptions and impact

D Aitken, H Macleod, J Skinner

D Aitken, Director of the Clinical Educator Programme, Centre for Medical Education, The Chancellor’s Building, 49 Little France Crescent, Edinburgh, Scotland, EH16 4SB

Background and Purpose
This study explored final year medical student use of smartphones on clinical attachments at the University of Edinburgh and how this group’s use of smartphones impacts on aspects of their developing professionalism, through exploring and understanding their current practices and the perceptions surrounding these practices. The study explored themes such as whether medical student use of smartphones can contribute to sense of having resources at one’s fingertips or a feeling of information overload 1; whether the use of smartphones on clinical attachments can cause increased stress levels for students as a result of negatively interpreted perceptions of others 2; and whether students appear affected by the “always on” feeling that has been associated with smartphone use 3. The research was carried out in order to investigate and explore ways of potentially developing and improving the use of smartphones for learning in medical education, in line with current advice on teaching, learning and professionalism 4,5.

Methodology
The study employed two stages of data collection. The aim of the first stage was to conduct a number of informal interviews and pilot questionnaires with medical students, medical educators and patients to explore the existing issues in this area. This determined the current extent of medical student smartphone use and the current restrictions/guidelines in place. The aim of the second stage was to build on the results of the informal interviews and pilot questionnaires by investigating the perceptions and impact of medical student use of smartphones. Questionnaires were distributed to final year medical students and consultants, and six patients in the Edinburgh Royal Infirmary were individually interviewed.

Results
Results from the survey and interviews will be presented as will the recommendations for medical schools on smartphone usage guidelines.

Discussion and Conclusions
The data revealed that whilst most students do carry smartphones on their clinical attachments, they are uncertain of when it is appropriate to use them. Consultants also felt similarly, but have more concerns about the perceptions of patients around breaches of confidentiality, breakdowns in communication or a lack of focus on the patient 6. Patients largely felt that it is not appropriate for medics in general to use smartphones in their presence, although some could see the benefits of smartphone use for checking information. Most students (89%) were not aware of any guidelines on the use of smartphones and recommendations for effective dissemination of engaging advice were discussed.

References
How Can Smartphone Technology Aid Undergraduate Medical Student Education?

M Harrison, J Williams, M Van Eker, W Cook, T Stonier

M Harrison, 4th Year Medical Student, Faculty of Medicine & Dentistry, University of Bristol, Bristol, UK

Background and Purpose
Smartphones have become increasingly popular over the last few years, although there is little current research in the UK about personal ownership and their use in undergraduate medical education 1. Smartphones provide a portable platform with a multitude of functions through ‘Apps’ and Internet access which can potentially provide students with a means of utilising instant mobile communication, medical references and organisational tools that may benefit them in their medical education 2. This study aims to investigate the extent to which medical students at the University of Bristol currently use their Smartphones to support their studies. Furthermore, we want to gain a greater understanding about the attitudes and opinions of the students and their teachers about how they think smartphones could help them in their learning experience.

Methodology
The study uses a mixed methods approach integrating both qualitative and quantitative data. Following ethics approval quantitative data was collected from a questionnaire using the ‘Bristol Online Survey’ tool. The questionnaire was designed, piloted and sent to all undergraduate students at the University of Bristol’s Medical School and completed anonymously. Students and medical faculty staff have been invited to take part in semi-structured interviews to gain further insight into their opinions, attitudes and concerns about the current and future use of smartphones in medical education and explore some of the issues raised by the survey in more detail. The interviews will be transcribed and coded to identify emerging themes.

Results
A full analysis of data from the online survey and semi-structured interviews will be presented. These will be supported with direct quotes from the interview transcripts highlighting key themes and opinions of students and staff on, and barriers to, their use.

Conclusion
There has been a rapid expansion of the use of Smartphone technology and the ‘App’ market within recent years. It is therefore important that those working in medical education should consider where possible to utilise the variety of potential teaching opportunities and resources that this new technology brings. However, implementing such a system across a whole medical school must aim to be inclusive of all students and consider the potential implications such as high costs for students and differing perceptions about the use of a smartphones particularly during teaching sessions and in clinical settings. Guidance should be developed to ensure appropriate use of mobile devices within both classroom and clinical environments taking into consideration patient perceptions and opinions.

References
Prepare for the PSA: An e-Learning Tutorial for Final-Year Medical Students

F Catling, R Baker
F Catling, Medical Student, Medical School, University of Bristol, Bristol, Avon, UK

Background and Purpose
Errors were identified in 8.4% of 50016 prescriptions written by first-year foundation doctors during 2009. Qualitative data from the same study suggested that undergraduate medical education programmes had failed to provide adequate training in practical prescribing. In addition, only 27% of medical students surveyed during 2006-2008 felt their training would enable them to achieve the core prescribing competencies outlined by the GMC. The Prescribing Skills Assessment (PSA) is a computer-based examination aimed at ensuring prescribing competence in final-year medical students. The PSA will soon be introduced nationally but few specific preparatory resources are currently available whereby prospective candidates can test their knowledge and familiarise themselves with the exam format.

Methodology
45 penultimate-year medical students were surveyed regarding their prescribing teaching, their perceived competence in the skills examined by the PSA, and their preferences relating to e-learning resources. An online tutorial (Prepare for the PSA) was designed in response to the results obtained. The tutorial consists mainly of a practice exam which closely mirrors the format of the PSA itself. After completing each question the user receives personalised feedback and is given the opportunity to further their knowledge using interactive learning activities. A facility for users to contribute their own questions to the tutorial is included and integration with social media encourages students to become involved in the project. 8 students evaluated the tutorial and rated their confidence in their ability to perform each skill examined by the PSA before and after completion of the tutorial.

Results
In the initial survey, 82% of students felt their teaching had prepared them slightly well or not at all well for prescribing duties as a foundation doctor. The vast majority of students felt not at all confident, slightly confident or moderately confident in their ability to perform each PSA-assessed prescribing skill, with slightly confident being the most common response. Practice examination questions and self-test quizzes were the most commonly requested e-learning tutorial features. After completion of the draft tutorial, students reported increased confidence in their ability to perform all PSA-assessed prescribing skills.

Discussion and Conclusions
It is hoped that Prepare for the PSA will become a successful platform for collaborative prescribing and therapeutics education. A larger-scale evaluation is currently being undertaken in the hope of formally demonstrating an association between completion of the tutorial and increased student confidence in ability to perform prescribing skills assessed by the PSA.

References
Background and Purpose
The Wales Deanery funded ‘iDoc project’ offers trainee doctors in Wales medical textbooks with search facility on their own smartphones. This aims to assist the transition from medical school to workplace, a period associated with increased patient mortality and trainee anxiety as they manage increasing responsibility for patient care with limited knowledge and experience.

Methodology
Trainees submit baseline and exit questionnaires and complete at least two case reports detailing specific instances of use. Data are reported here from 2012/13, from 357 baseline questionnaires - 249 Foundation Year 1s (F1s) and 108 F2s - and 80 case reports.

Results
In a context where the most frequently used information sources were people - seniors (76% daily), peers (69%) and other staff (55%) - the F1 year was judged the most useful time to have the smartphone library. Over 90% agreed that ready access to books on their smartphone lessened worries about increased responsibility. Case reports reveal mobile technology was used: (a) as a ‘just-in-time’ information-source in daily clinical practice, particularly when others (eg seniors or reference books) were unavailable; (b) as a portable resource for preparing for discussions with seniors or learning with other trainees. Benefits for patients were reported.

Challenges of using mobile technology for workplace learning were also reported. Many indicated that they did not feel comfortable using a mobile device in front of seniors (31%) or patients (65%). If they did not know something during a consultation, most (70%) would not seek information in front of the patient. Strategies for using the device when patients are present varied from sharing the information on the device directly with patients to purposefully moving away from them to search for information.

Discussion and Conclusion
Seniors and ward based information resources (computers, books) continue to be important, but are not always available. In times of transition, immediate access to a searchable mobile library of texts is a valuable support. Using mobile resources when others are present has implications for training. Questions include: Is training needed on how to integrate technology with other information sources? Should seniors better recognise the role of mobile technology in workplace learning? Can mobile information enhance relationships with seniors and patients? Can trainees shift expectations around technology enhanced learning in the workplace? This presentation provides the context for exploring these and other questions.

References
Undergraduate Education
Spirituality and Health Education and Research: A National Survey of Academic Leaders in UK

A Culatto, C Summerton

A Culatto, Foundation Year 2 doctor, Post-graduate Medical Education, Manchester Royal Infirmary, Oxford Road, Manchester, M13 9WL, UK

Background and Purpose
Whole person care is deemed important within UK medical and nursing practise and therefore fundamental in education. However spirituality is an aspect of medical education widely neglected. Confusion and discomfort exists regarding how care relating to issues of spirituality and health (S&H), should be delivered. Different interpretations have even led to disciplinary action when seeking to address these needs[1].

Previous research shows 45% of patients want spiritual needs to be addressed as an aspect of their care[2]. Two thirds of healthcare professionals want to do this. However lack of knowledge is a significant barrier[3]. Little is known regarding how Medical and Nursing schools address S&H, only one limited study exists in the literature[4].

Methodology
UK educational institutions were surveyed using a method suitable for cross-cultural and trans-national comparisons. The chosen survey was compiled by Koenig HG and Meador K, Duke University, USA[5].

Results
131 academics were contacted in UK medical and nursing schools, the response rate was 56.5%. Statistical analysis was performed using SPSS 16.0. 5.6% institutions provide required and dedicated S&H teaching, 63.4% provide it as an integrated component. 53.8% felt staff were not adequately trained to teach S&H but welcomed opportunities for training. Respondents from nursing institutions answered more favourably towards S&H.

Discussion and Conclusions
S&H is given value in undergraduate education but with little evidence of formal teaching. Institutions feel that this area is addressed within other topic delivery, although previous studies have shown integrating S&H with PBL leads to poor clinical performance[6]. Seminars or lectures are students’ preferred methods of learning[7]. Further consideration should be given towards S&H delivery and areas for further development.

References
Feedback on clinical attachments in medicine in a tertiary care NHS hospital

D Banerjee, L Ross, K Koutrotsos, P Tostevin

D Banerjee, Consultant and Reader, Clinical Sub-Dean, St George’s University of London, London

Introduction
Student feedback is a very powerful tool to assess the quality of clinical teaching and implement further changes to improve teaching. This study analysed the feedback on general clinical attachments and how they related to various aspects of student experience.

Methodology
Data was collected from 299 students on the MBBS programme attached to different medical firms at St George’s Hospital (151 fourth years and 148 third years), respectively known as penultimate (P) and transitional (T) years. Feedback was compulsory and included 13 questions on the Survey Monkey. Correlations were examined between variables and overall feedback using SPSS 17 results.

Results
Overall satisfaction with the attachments was rated good to excellent by 86% of the P year students and 83% of the T year students. Fifty-six percent of the students clerked ≥12 patients over a 5 week period in the P year, and 52% clerked ≥13 patients over a 6 week period in the T year.

Students received a variety of teaching sessions including bedside and clinic teaching, small tutorials, and teaching during ward rounds. They attended medicine and student grand rounds. The P year reported that bedside teaching was most effective, followed by tutorials, clinic teachings, then ward rounds. Teaching during multidisciplinary team meetings was considered effective.

There was variation between the firms on overall good to excellent feedback (63% to 100%), number of students receiving ≥3 bedside teachings per week (23% to 86%), and the number of students clerked ≥12 patients (23% to 80%).

There was a significant correlation between the number of students clerked ≥12 patients and reported good feedback \( r^2 = 0.517; \ p=0.003 \), and between good to excellent feedback and the number of bedside sessions \( r^2 =0.404; \ p=0.015 \). There was a relationship, although not statistically significant, between the number of patients presented and good to excellent feedback \( r^2 =0.193; \ p=0.11 \).

Conclusion
We conclude feedback from medical students for medicine attachments in a tertiary care NHS hospital is generally good. The majority of students received ≥2 bedside teaching sessions per week which they enjoyed the most. Good feedback is related to the number of patients clerked and the number of bedside sessions received. We propose that a clinical log book for all patients seen may be useful to improve student feedback.
Simulation for Foundation Year Survival Skills (SIM-FYSS) - Using simulation to teach medical undergraduates to care for elderly inpatients before entering the UK Foundation Programme

M Alcorn, J Lonnen, C Paton

M Alcorn, Clinical Teaching Fellow, Medical Education Department, NHS Lanarkshire

Background and Purpose
All medical graduates must undertake the UK Foundation Programme in order to work as a doctor in the UK, yet the undergraduate training that entrants experience may not have specifically prepared them for the challenges that caring for older people can bring. The UK population is progressively ageing and this is nowhere more evident than amongst hospital inpatients, where junior medical staff are responsible for much of the front-line care provided, especially out-of-hours. Evidence is mounting that simulation-based teaching methods effectively improve students’ clinical knowledge, skills and attitudes in many areas of medical practice. Our aim was to design, implement and evaluate a targeted educational intervention, teaching key aspects of the medical care elderly inpatients receive to undergraduate medical students in their final months before taking up Foundation Programme posts, using a combination of simulations and workshop-based sessions.

Methodology
An internet-based questionnaire was sent out to all Foundation Year 1 (FY1) doctors in NHS Lanarkshire in September 2012, to establish whether there is a perceived shortage of appropriate undergraduate education in topics relevant to caring for elderly inpatients. This questionnaire looked at confidence levels in dealing with common medical problems encountered by FY1’s amongst this group of patients. Based on our questionnaire results, a targeted, mixed modality educational intervention has been designed, using immersive simulation with reflective feedback and facilitated small group workshops. This will be run for final year medical students from the University of Glasgow in April and May 2013 and will be evaluated using pre- and post-course questionnaires. In due course, another follow up questionnaire will be sent to all those who completed the educational intervention and to all other NHS Lanarkshire FY1’s. This will allow comparison of those who underwent the educational intervention with those from the same medical school who did not.

Results
Results from the survey of current FY1 doctors will be presented, as well as the outcomes from pre- and post-intervention questionnaires once the survival skills day has been piloted.

Discussion and conclusions
Our work demonstrates that there is a desire for increased undergraduate teaching of Geriatric Medicine topics amongst new FY1 doctors. We hope to show that by using a targeted, mixed modality teaching approach at an appropriate stage in their undergraduate education, the perceived knowledge, skills and attitudes of these doctors improve when dealing with common medical problems encountered amongst elderly inpatients.

References
Good prescribing practice requires practice prescribing: Incorporating mock prescribing into final year medical student patient clerkings portfolios

G Morris, N Jakeman

G Morris, Clinical Teaching Fellow in Undergraduate Medicine, Bath Academy, Royal United Hospital, Bath, BA1 3NG

Background and purpose
The EQUIP study commissioned by the GMC highlighted high prescribing error rates amongst newly qualified doctors and perceived deficiencies in undergraduate prescribing teaching 1. University of Bristol students are encouraged to use portfolios of patients they have clerked as a prompt for self-directed learning. This project involved the introduction of a mock drug chart to each clerking, with drugs prescribed according to the student's drug history and management plan. This could be cross referenced to the patient’s actual chart to identify and rationalise differences. The aim was to evaluate this approach with regards to:

1) **Utility:** Was it useful and how was it implemented by students?
2) **Feasibility:** Are there any barriers to implementing this within a wider student group and how could these be addressed?

Methodology
All final year medical students studying at Royal United Hospital were invited to participate. The project ran for 5 weeks and was split into two consecutive phases with compulsory use during the first phase followed by students using it as they felt appropriate. Participants completed questionnaires at the start, mid-point and end of the project to assess confidence in prescribing at each interval and evaluate the perceived utility of the mock drug charts. This supported two focus groups discussing in depth the issues around utility and feasibility, with a thematic analysis.

Results
A summary of the questionnaire results and the thematic analysis of the focus groups will be presented with a proposal for implementation of mock drug charts.

Discussion and Conclusions
Prescribing is a topic which pervades the University of Bristol medical curriculum 2 but there are few specific teaching sessions to address this, a feeling reflected by many EQUIP study participants 1. Whilst focussed teaching has been shown to increase student performance in prescribing 2,3,4, there is scope to support students in self directed learning on prescribing. The focus group data supports the assertion that this is a useful adjunct to current teaching and identified some strategies to optimise the feasibility, allowing further development and wider implementation.

References
Who says anatomy is boring?

A Strachan, E Welsh

A Strachan, 3rd year Medical Student, Medical School, University of Aberdeen

**Background and Purpose**

Medical students entering medical school are excited with the prospect of learning anatomy. However, many are disillusioned, finding the subject to be dry and irrelevant. The teaching of anatomy can be equally difficult and challenging when trying to inspire young and often immature students. What can be done to satisfy the student and the teacher? In the third year of their medical studies, students are involved in a two-week ‘Humanities Course’ choosing from a wide range of subjects which includes anatomy. The anatomy module involves the student deciding for themselves on a clinical condition which can be highlighted by an anatomical dissection. This presentation shows a unique method of dissection and demonstration of the Circle of Willis and its effect on a medical student’s perceptions of anatomy.

**Methodology**

A field of interest was selected and discussed with the anatomy tutor as to its suitability. Once accepted, the ethics of the dissection were checked to ensure that bereaved family’s wishes were recognised. The dissection was performed using a technique which mimicked the slices shown on a CT of the brain and of the anatomical models which demonstrate transverse sections. Photographs were taken at the different stages of the dissection. At the end of the two weeks, the project was presented to peers and senior medical staff.

**Results**

The dissection demonstrated the feasibility of this novel approach and produced very interesting and unexpected findings. These will be illustrated.

**Discussion and Conclusions**

The chance to participate in this exercise was a wonderful experience. It highlighted the benefits of allowing a student to design, plan, perform and illustrate a clinically relevant dissection and inspire an interest in anatomy. Also, it allows a student to appreciate how anatomy is relevant to a disease process and how disease can affect anatomy. It can be seen how this understanding can be applied to other anatomical systems.
“I Can See You’re Angry”: The use of actor reported ‘anger scores’ as an aid to debrief in a challenging communication scenario

J Fisher, S Keddie, L Norris, E Grogan

J Fisher, North Tyneside General Hospital, Rake Lane. North Shields. NE29 8NH. UK

Background and Purpose
Substantial evidence demonstrates that teaching utilising role-play enhances communication skills in high-stress environments. There is also good evidence to support the use of both actor feedback and a ‘visual review’ of the simulated consultation. Most ‘visual review’ relates to video playback and there is limited evidence of use of other tools. The debriefing process is central to the learning that occurs following role-play. Stressful scenarios may have a detrimental effect on student recall of the role-play and consequently may impact on the debriefing process. Also, students’ perceptions of the role-player’s emotions may differ significantly from that of the actor. We hypothesised that for this teaching session a graphical representation of the actor’s anger levels during the role-play, as defined by the actor, would act as a useful tool to stimulate debrief.

Methodology
This session ran during year 5 of Newcastle University’s MBBS degree. 10 groups of students undertook the teaching. One student was placed in the role of the Foundation 1 (F1) doctor and the remaining students observed. Students received a standardised briefing about the patient’s case. A professional actor played the role of a patient’s relative with concerns about the quality of her mother’s care; the ‘F1’ had 10 minutes to address these concerns. At one minute intervals during the role-play the actor recorded how angry they were feeling on a Likert-type scale (0-10; 0=no anger, 10= maximal anger). A tutor recorded the time and nature of any events that may have triggered changes in anger levels. After each scenario, a graph of anger score (y-axis) and time (x-axis) was plotted and displayed. This graph was used as a visual aid to debrief, with students reviewing the graph and discussing what may have triggered changes. After the session free-text feedback was obtained from the students and the actor.

Results
Free-text feedback from the students was overwhelmingly positive. Students repeatedly expressed that visualising a summary of the consultation helped identify triggers for changes in the actor’s behaviour. Collaborative discourse facilitated by the tutor enabled students to formulate strategies to employ in future. Figure 1 provides an example of how this tool was used.

Discussion and Conclusions
This tool was well received by both students and the actor. Neither group reported that the act of recording the scores interfered with the flow of the role-play. We therefore conclude that visual representation of the evolution of an actor’s anger during challenging communication scenarios can assist the debrief process.

References
Does introducing Basic Life Support (BLS) and simulation training improve third year medical students’ confidence in learning from acutely unwell patients?

D Mann, J Muhsenschlegel, A Youssef, P Fletcher, C Rodd

D Mann, Clinical Teaching Fellow, University of Bristol at Gloucestershire Academy
Gloucestershire Royal Hospital, Great Western Road, Gloucester. GL1 3NN

Background and Purpose
This study has been granted ethical approval.
The GMC’s ‘Tomorrow’s Doctors’ states that by the time of qualification all medical students should be able to manage an acutely unwell patient, yet students and junior doctors lack confidence in approaching acutely unwell patients and implementing initial management.

The purpose of this study is to determine whether introducing an intervention (i.e. basic life support and simulation training):
1. Improves year three junior medicine and surgery students’ confidence around seeing these patients
2. Increases the number of acutely unwell patients that they seek.

Methodology
Year 3 medicine and surgery students were recruited and given a baseline questionnaire to assess their background attitudes, experiences and exposures to acutely unwell patients. The students were then randomised into two groups.

The intervention was conducted using a delayed start method. One group underwent the simulation and basic life support training at the start of their 18 week module, and the second group at the mid-point of the block. This ensured all students had received the intervention, whilst maintaining a control group.

The students were questioned weekly and the number of acutely unwell patients that they encountered was recorded (working to a pre-specified definition approved by the University of Bristol ethics committee). The questionnaire was re-issued to assess attitudes prior to the second groups’ training and at the end of the module to qualitatively assess their confidence.

Results
Initial results suggest that after receiving the intervention, students feel more confident around acutely unwell patients. However, to date, the number of acutely unwell patients sought by the students does not appear to be affected. A full breakdown of the results will be presented.

Discussion and Conclusions
Exposure to acutely unwell patients is an integral part of medical training. Methods that assist students to overcome their fears and anxieties around seeing these patients are a valuable part of their education and allow them to develop into effective doctors.

References
Final year medical students: are they ready for ‘allow natural death’ decisions?
D Mann, J Muhlschlegel, A Youssef, P Fletcher, C Rodd
D Mann, Clinical Teaching Fellow, University of Bristol at Gloucestershire Academy
Gloucestershire Royal Hospital, Great Western Road, Gloucester. GL1 3NN

Background and Purpose
This study has been granted ethical approval.

The GMC recognises that “Providing treatment and care towards the end of life will often involve decisions that are clinically complex and emotionally distressing.”1 The literature shows that junior doctors sometimes have to make ‘allow natural death’ or DNACPR (do not attempt cardiopulmonary resuscitation) decisions2 when their seniors are unavailable. It is also known that junior doctors and medical students feel poorly prepared to make these decisions.3,4 Both students and junior doctors have been shown to have poor knowledge about what ‘allow natural death’ and DNACPR mean,4 and about what other ceilings of treatment might mean – for example ‘ward based care only.’4

The purpose of this study is to see whether an educational intervention helps 5th year medical students in their preparing for professional practice unit (PPP) feel more confident in knowing what these decisions mean and what they involve as well as increasing confidence in considering when they are appropriate.

Methodology
Final year medical students were invited to take part in focus groups to determine their areas of concern around ‘allow natural death’, DNACPR and death. The focus groups were analysed thematically and the themes were used to generate a questionnaire issued to all participating students. The students were also given a short quiz to assess their knowledge around these issues.

The combined results of these guided the creation of an educational intervention targeting their areas of concern and knowledge gaps. The questionnaire and a similar quiz were then repeated to see if they felt any more prepared for when they begin practicing as doctors.

Results
Analysis of initial focus groups and questionnaires has demonstrated that there is a great deal of confusion amongst students regarding ‘allow natural death’ orders, DNACPR and surrounding issues. In keeping with the literature we have also found that final year medical students feel unprepared to deal with issues around resuscitation decisions. Full results including the effect of the intervention will be presented.

Discussion and Conclusions
Broaching cardiopulmonary resuscitation decisions is one of the most feared and avoided topics amongst junior clinicians. Any intervention that aids final year students prepare to enter the workplace should be a vital part of their undergraduate training.

References
Undergraduate medical students as both learners and curriculum developers: evaluation of a support framework

D Alder, J Williams, J Cook

D Alder, e-Learning Developer, Faculty of Medicine and Dentistry, University of Bristol, 1st Floor South, Senate House, Tyndall Avenue, Bristol BS8 1TH, UK

Background and purpose
At the University of Bristol, undergraduate medical students can choose to develop e-learning materials as part of their self-directed Student Selected Component (SSC) programme. For most of the students, both the skills of designing and creating a piece of learning material and authoring with e-learning technologies are new. Students are provided with comprehensive support to provide: 1) models and concepts that inform the educational design of their material; 2) practical guidance and support in the use of appropriate tools; 3) assurance that the scope of their project matches the time and resources available. Whilst the motivation for the students is to develop e-learning material for use by their peers via inclusion in the curriculum, it is the learning process and the range of skills and insights acquired, including teaching skills, that is more important. For a variety of reasons, it does not follow that a good learning experience will always result in a high quality product. The purpose of this study is twofold: 1) to evaluate the support provided and assess its impact on these outcomes; 2) to identify ways in which the support can be optimised.

Methodology
Using a qualitative approach, a series of semi-structured interviews lasting around 30 minutes were conducted with volunteering medical students and faculty staff. The interviews were transcribed and a full thematic analysis was conducted to identify emergent ideas and concepts by researchers in the study and an independent researcher.

Results
A full analysis of the results, identifying and summarising common themes will be presented. Specifically, our preliminary analysis has identified that students value the guidance given to them to develop ideas and concepts as educationalists. However, they appear to spend a significant amount of time mastering the authoring tools and other technical skills.

Discussion and conclusions
Care must be taken to ensure that the support and guidance provided for the students is aligned with the intended outcomes of supporting their movitation in producing a quality learning resource and delivering a good learning experience for their peers, and the learning experience of the student themselves. The results will inform refining the support framework to meet the dual needs of student as learner and student as producer/teacher.

References
1 Williams, J., Alder, D., Cook, J., Whinney, M., Connell, O., Duffin, W., & King, P. Students and Staff as Educational Partners in the Development of Quality-Assured Online Resources for Medical Education. In Little, S. (Ed.). Beyond consultation: Developing staff-student partnerships in learning and teaching development and research. London: Continuum; 2011.
Implementing Quality Improvement At Bristol Medical School

R Houston, A Wardle, A Abraham, N Cohen

R Houston, University of Bristol

Background and Purpose
Quality Improvement (QI) is an emergent field in medicine. It focuses on the continual development and improvement of work protocols with the aim of improving patient outcomes. Currently, QI has not been extensively incorporated into UK medical school curricula. Furthermore, at the University of Bristol (UoB), year 4 medical students are given opportunities to pursue independent projects of the student’s choosing under senior clinician guidance as external student selected components (eSSC). These often consist of literature reviews or audits but could also represent an opportunity for QI. This latter option would include greater emphasis on action with patient-focused outcomes, thereby encouraging active student participation in improving healthcare delivery. We sought to enable this aforementioned change and begin a long-lasting appreciation of QI amongst UoB students.

Methodology
We set up an Institute of Healthcare Improvement University of Bristol Chapter in 2012 and have used this, and an associated website (www.QIBristol.com) as a focus for new QI learning within the curriculum. A member of the faculty was able to catalyse the development of numerous QI projects as year 4 eSSC’s, principally within one local NHS Trust, enabling interested students to study in their preferred specialty, working alongside enthusiastic specialists, on a QI project. The use of anonymised root cause analysis synopses acted as a focus for an improvement project where the development of a project by a student was difficult. In addition to this, similar eSSC projects performed in the last year, often labeled as audit, but making improvement suggestions were reviewed.

Outcome
There are in excess of 10 students undertaking QI-related eSSC projects in this academic year, aside from those who are conducting an audit. Many of these involve the implementation of emerging methods of care in new clinical scenarios (e.g. enhanced recovery). Those students who have, in the last year, undertaken a similar project with improvement suggestions (more than 50) have been invited, alongside the QI students, to submit an abstract for a local conference and become more involved with the chapter. The faculty, in turn, is able to use this impetus in modernising and future-proofing the training of tomorrow’s doctors.

Discussion and Conclusions
The initial implementation of QI was a sharp learning curve in delivering the best message to prompt student participation. The incentive for students to take on projects included the opportunity to implement change and improve patient care, gain support from the student initiative and to improve personal portfolios. Students currently undertaking QI projects have expressed enthusiasm for its ethos, laying the foundation for further expansion in the UoB curriculum. In the future we shall reinforce this with large representations at QI related conferences as well as workshops to engage and help improve ongoing QI projects at Bristol.
What are the barriers that discourage third and fifth year medical students from seeing sick patients? Do they differ for foundation year 2 doctors?

D Mann, A Youssef, J Muhlschlegel, P Fletcher, C Rodd.

D Mann, Clinical Teaching Fellow, University of Bristol at Gloucestershire Academy Gloucestershire Royal Hospital, Great Western Road, Gloucester. GL1 3NN

Background and Purpose
This study has been granted ethical approval.

Contact with sick patients is necessary for medical students to gain the skills and experience they require to become effective foundation doctors. It has been frequently found that junior doctors are unprepared for this aspect of their job when they start work.

To tackle this it is essential that medical students come into contact with as wide a variety of patients as possible. The purpose of this study is to determine if there are any factors that students consider to be barriers to seeing sick patients and if barriers are present, do they change with training and experience? The study compares the views of year three students, year five students and foundation year two doctors.

Methodology
Third year and fifth year medical students studying medicine and surgery and F2 doctors working in Gloucestershire Hospitals NHS Foundation Trust were recruited to take part in focus groups discussing their feelings around seeing sick patients - whether there were any factors that influenced whether they saw them and if they found any barriers which discouraged them. The data from the focus groups was then transcribed and analysed thematically. The themes that were found from this analysis were used to create a questionnaire issued to all participating students and doctors.

Results
The results have shown a diverse range of issues which affect how clinical students feel about seeing patients which are broadly split into two groups – the students’ commitments/agenda and how students consider their place in a ward environment. The thoughts of F2 doctors were based around more practical and work-based issues.

Discussion and Conclusions
Knowing how students and junior doctors feel about seeing acutely unwell or ‘sick’ patients and what factors are viewed as barriers is essential. Identifying these issues allows us to support students and junior doctors in overcoming them and assisting their development into well-rounded, effective practitioners.

References
Final year medical students’ attitudes and knowledge about handover: can they be improved by teaching using methods applied by other high risk industries?

A Youssef, D Mann, J Muhlschlegel, P Fletcher, C Rodd

A Youssef, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucestershire, GL1 3NN

Background and Purpose
This study has been granted ethical approval.

Handover is an important patient safety issue, requiring excellent communication between teams and individuals1-4. It is often of variable quality, which can put patients at risk1-4. Surprisingly, handover skills are not usually taught to junior doctors or medical students2 and when they are, no evidence exists as to whether the skills taught are retained2.

The last decade has seen a drive to improve many aspects of patient care by looking at the methods other high risk industries use to minimise their human errors and increase situational awareness5. There is the potential to improve handover in the future by looking at these industries and applying lessons learnt to undergraduate medical training. The questions to be addressed were: 1) What existing knowledge do final year medical students have of handover and what are their attitudes towards it? 2) Can their knowledge and attitudes be improved by teaching them handover using methods applied by other high risk industries? 3) Do they retain this knowledge?

Methodology
Final year medical students were recruited and focus groups were held to ascertain their baseline attitudes and perceptions of handover. Their ability to handover was also assessed using a mini-cex tool6 in a simulated environment. A series of interviews with professionals from high risk industries then took place and the relevant literature was reviewed to identify handover techniques they used. These were collated and integrated into a teaching plan designed to educate students in the principles of handover.

The students received the teaching session (mid-module) and were reassessed on their handover technique using the mini-cex tool6 immediately after this teaching and at the end of their 12 week module. Finally, the students repeated the focus group to see if their attitudes and perceptions had been affected.

Results
This study has shown increased confidence in performing handover. In-depth results including retention of handover technique will be presented.

Discussion and Conclusions
Handover is an essential skill for any new junior doctor to acquire. It is known that medical students enter the workplace poorly equipped to do this. This study has shown improvements in handover confidence. We recommend that handover teaching becomes an essential part of medical student training.

References
Which patients do third year medical students avoid?

D Mann, A Youssef, J Muhlschlegel, P Fletcher, C Rodd

D Mann, Clinical Teaching Fellow, University of Bristol at Gloucestershire Academy
Gloucestershire Royal Hospital, Great Western Road, Gloucester. GL1 3NN

**Background and Purpose**
This study has been granted ethical approval.

Exposure to a wide variety of patients, with many different medical conditions is an integral part of medical training. The GMC document ‘Tomorrow’s Doctors’ specifies that to become doctors students need to interact with a wide variety “people from a range of social, cultural, and ethnic backgrounds and with a range of disabilities, illnesses or conditions” in addition to “acutely unwell” patients.¹

The purpose of this study is to discover which patients year three students feel uncomfortable around and avoid seeing, if any. We hypothesise that students avoid interacting with the sickest patients.

**Methodology**
Third year medical students studying junior medicine and surgery in Gloucestershire Hospitals NHS Foundation Trust were recruited to take part in focus groups discussing which patients they do not like to see and why. The data from the focus groups was transcribed and analysed thematically. The themes that were found from this analysis were used to create a questionnaire issued to all participating students.

**Results**
Results have shown that there are a variety of patients that students avoid. The hypothesis that third year students avoid the sickest patients is an oversimplification. Results show that students avoid dysphasic and immobile patients and those nursed in side rooms, amongst others. A breakdown of the patients avoided and the reasons students give will be presented.

**Discussion and Conclusions**
An understanding of students’ fears around seeing certain groups of patients is vital. The results of this study identify these issues and allow development of strategies to address them. This is essential to ensure that the students get a well-rounded exposure to variety of patients to ultimately become effective practitioners.

**References**
Does therapeutics teaching by pharmacists improve prescribing competencies and confidence? Is this enhanced when teaching is ward-based rather than in the classroom?

A Youssef, D Mann, J Muhlschlegel, P Fletcher, C Rodd

A Youssef, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucestershire, GL1 3NN

Background and Purpose

This study has full ethical approval.

Clinical pharmacology and therapeutics teaching (CPT) is a “hot topic” in undergraduate education and foundation training. Rothwell et al have shown that graduates entering foundation year 1 felt under prepared for prescribing. Additionally it has been shown that although junior doctors make the majority of prescribing errors, they also make most of the ward prescribing decisions, despite their lack of clinical experience. Tobaigyi et al found that foundation year 1 doctors would have liked more undergraduate CPT teaching with only 8% of them citing their CPT knowledge as “good”. Undergraduate CPT teaching is moving from didactic lecture based teaching towards more case-based learning tutorial environment. However the style of CPT teaching and its assessment in the final years of medical school is still a matter of debate. To address this problem the Medical Schools Council & the British Pharmacological Society have been piloting a national “prescribing skills assessment” for final year medical students, with the majority of medical schools making it a compulsory assessment by 2014.

Methodology

Final year 5 senior medicine students studying in the Gloucestershire Academy were enrolled. The 5th year students were randomised between Cheltenham and Gloucester hospitals. There was an identical pharmacy curriculum created by hospital pharmacists for both sites. In addition to this teaching, the students who studied senior medicine in Cheltenham undertook one of their tutorials on the ward instead of in a classroom.

An initial assessment occurred at the start of the unit. A post course assessment occurred at the end of the block in a mock OSCE setting. The data from both assessments were then analysed and interpreted between the groups and within groups comparing the pre and post intervention scores.

We also assessed prescribing confidence via course evaluation forms. We reviewed evaluation forms before their initial assessment (1st tutorial) and at the end of the course and compared results.

Results

Results from the quantitative and qualitative data will be presented as well as its implications for future CPT teaching for final year students.

Discussion and Conclusions

Despite the literature on this subject, multiple previous projects aimed at improving CPT teaching have focused on simulated case scenarios and tutorials. Our project also investigated whether the addition of a supervised real-life prescribing tutorial on the wards with an experienced pharmacist improves prescribing competencies and confidence. Do real-world interactions improve their competence and overall learning?

References

Acute care simulation training for undergraduates – is it undervalued?

G Torlot, G Margiotta, K Kamalanathan, C Bourdeaux.

G Torlot, 4th Year Medical Student, University of Bristol, 47a Whiteladies Road, Bristol, UK, BS8 2LS

Background and Purpose
A growing problem faced by undergraduate medical training programmes is that graduates are ill prepared to provide immediate care to an acutely unwell patient. Both graduates and educational supervisors agree that junior doctors are unsatisfactorily prepared for providing acute care and they are said to lack “knowledge, confidence and competence”1,2. In recent years, simulation training has gained great prominence as a tool in medical education. Participating medical students have appreciated the chance to practise the application of acute care principles and ‘bridge the gap’ between theory and practice 3-5. The purpose of this study was to assess medical students’ exposure to and perceptions of simulation training in relation to the provision of acute care.

Methodology
A web-based survey was created and distributed via e-mail to medical students in their 3rd and 4th year of study at one medical school in the UK. This was a cross-sectional survey designed to gather both quantitative and qualitative data regarding student exposure and opinion of simulation training, as well as their self-perceived ability in providing acute care.

Results
187 responses were received from both year groups; giving a respective response rate of 42% and 31% for 3rd and 4th year. 62% of respondents stated that their major concern for starting as a junior doctor was “being responsible for managing an acute medical emergency”, superseding other concerns such as prescribing. 56% of students felt confident that they could “talk someone through the process of providing acute care” but 72% stated that they were “not at all confident” in correctly managing the patient themselves. 73% of respondents had already received simulation teaching. Respectively, 70% and 56% of students felt that simulation training would be “invaluable” or “very useful” for improving their competence at managing acutely unwell patients and their confidence as an F1.

Discussion and Conclusions
There appears to be an inadequate provision of acute care teaching in undergraduate medical education whereby low levels of confidence in medical students persist into their professional practice2. The fundamental issue outlined by this survey is that students possess knowledge of the theoretical principles of acute care but lack confidence in applying this in clinical practice. These results support the proposal that simulation training could form a key component of efforts to address this problem. Whilst benefiting the confidence of the students, the quality of patient care and safety could also be improved.

References
Exploring Preparation for Professional Practice through Bourdieu’s Theory of Practice

S Sihota, A Brown

S Sihota, Medical Education Unit, Hull York Medical School (HYMS), University of York and University of Hull, UK

Background and Purpose
How well new medical graduates are prepared to begin their first post as a doctor has received much focus in medical education research. Most research has been learner focused and the social structure that surrounds the student and new doctor - the deanery, medical school and NHS institutions in which students and doctors train and work - and its influence on preparation, has often been given less consideration. Bourdieu’s Theory of Practice, with its interacting concepts of field, habitus and capital can provide a way of exploring interactions between the individual and the social world¹. The aim of this study is to explore preparation by considering both the learner as well as the social structure that surrounds them through using Bourdieu’s concepts to help interpret the findings.

Methodology
Five focus groups, involving 5-8 final year HYMS students, and four focus groups, involving 6-8 HYMS graduate FY1 doctors were carried out. All of these participants were going through or had been through Student Assistantship placements where they were expected to take on some of the responsibilities of an FY1 doctor. Additionally face-to-face interviews were performed with 16 final year placement supervisors and 14 ‘stakeholders’ (including deanery, medical school and NHS trust representatives). This qualitative data is being organised and analysed using the Framework Analysis approach².

Results
Analysis so far suggests that students have difficulty and are also cautious of adjusting their habitus from the ‘student habitus’ to ‘doctor habitus’ when put in a position like the Student Assistantship where one may expect this transition to occur. Part of this may be related to the students’ position: they say, in reality, they do not have any real responsibility for decision making, so they lack cultural capital to influence their position in the ‘field’ - the workplace. Furthermore, students may have difficulty cultivating relationships in an environment where changing working patterns have resulted in a move away from the traditional firm structure, so students have difficulty acquiring social capital as well, compounding the difficulty in influencing their position in the field.

Discussion
Research into preparation requires an insight into the interaction of individual learner factors as well as the surrounding social structure. Bourdieu’s Theory of Practice may be a useful way to elucidate the process of preparation as it allows these factors of social structure to be explored alongside individual learner response to this structure. Further analysis is on-going.

References
Exploring undergraduate anxieties about teaching before and after a one week compulsory teaching course

M Haque, J Currie, N Salooja

M Haque, Imperial College, London

Background and Purpose
The GMC have recommended that all undergraduate medical students be taught how to teach. We have introduced a compulsory one week course for penultimate year medical students. A key element of the course is that we aim to visibly practise what we preach. The importance of considering student learning needs is emphasised to our course participants by investigating their main anxieties about teaching prior to commencing our course. In addition we have investigated anxieties remaining at the end of the week as an explicit evaluation of our teaching, with the aim of course development.

Methodology
Students recorded main teaching anxieties as open free text at the course start. At the end of the week, students documented post-course anxieties with explanations of changes in type or level of anxiety. Anonymous verbatim paired responses were recorded in Excel and independently coded by two researchers. A consensus of codes and themes was reached by discussion and responses re-analysed under agreed codes.

Results
Data were collected for 127 students and included 150 items and 33 codes. Six themes were identified (response numbers in parentheses): Knowledge related (81), content (4), design and planning (6), teaching techniques (14), performance (17) and learner outcome (28). The most frequent codes (responses>10) were insufficient knowledge (35), insufficient knowledge to answer questions (32), making errors (11) knowing less than students (11), the learner would learn nothing (10). After the teaching skills week, 34 students were less anxious (30) or not anxious at all (4). Of 61 students who retained the same main anxiety, 20 were less anxious and 22 felt empowered by the course to improve either by practice, knowing how to prepare or else having acquired necessary skills. 69 had new concerns.

After the course the distribution of codes changed as follows: Knowledge related (49), content (11), design and planning (21), teaching techniques (13), performance (18) and learner outcome (29). The most frequent codes were insufficient knowledge (26), insufficient knowledge to answer questions (18), not captivating the learner (20)

Discussion and Conclusions
For undergraduate medical students who are learning how to teach, concerns about inadequate knowledge dominate; our data indicates this is currently only partially addressed by our course. After the course, additional anxieties related to choice of content, design and planning and captivating the learners. We conclude that courses that teach undergraduates to teach should specifically address issues of confidence linked to insufficient knowledge.
A qualitative exploration of the approaches to learning employed by medical students for knowledge based assessments

CS Thandi, AK Stubbing-Moore, DS Bajwa, GM Finn

CS Thandi, Medical Student, c/o GM Finn, School of Medicine, Pharmacy and Health, Durham University, UK

Background and purpose
Medical education requires competency across a number of domains; knowledge, skills and behaviour. In order to achieve competence in such a diverse range of subjects, medical students need to adopt different learning methods. Newble and Entwistle looked at different learning style approaches, and found that the deep learning approach was the most successful\(^1\) however, they only studied three different learning strategies that were used. In our experience as medical students at Durham University, students adopt a variety of study methods and need to be able to work effectively with colleagues\(^2\). Recently, the high number of applicants and competition to enter medical school has led to a high achieving relatively homogenous cohort of students, with commendable A-levels, degrees, and UKCAT scores. Our research explores whether this student population employs divergent approaches to learning, and aims to ascertain how students rationalise their adoption of various study methods as well as exploring which approaches they most commonly adopt.

Methodology
First and second year medical students at Durham University were invited to participate in semi-structured focus groups, after approval from the ethics committee at Durham School of Medicine, Pharmacy and Health. Focus groups were recorded and transcribed. Data will continue to be analysed using grounded theory, which is both a method and a paradigm. This helps in retrieving data based on student’s attitudes towards learning methods, which can be analysed to create a theory whilst avoiding author bias\(^3,4\). This allows focus groups to explore the methods which students utilise in order to attain competency in their knowledge subjects such as anatomy or pharmacology and knowledge-based assessments such as the anatomy spotter, MCQ and short answer questions.

Results
Data analysis is currently underway. Qualitative data will be presented using illustrative quotes to highlight our key themes.

Discussion and Conclusions
It is important to understand that learning is a lifelong process, and adopting efficient learning methods could prove highly beneficial for the future cohorts entering the medical profession. Our findings could lead to further research into the most commonly used learning methods. Understanding how students adapt their learning strategies could help inform curriculum development and assessment processes. Furthermore, the need to change their approach may prove beneficial based on what students are learning and for their future clinical practice. Medicine is a vocational degree which requires practical skills and a strong knowledge base, this is essential in a complex work environment which requires students to implement an adaptive attitude.

References

2. Medical students: professional values and fitness to practise http://www.gmc-uk.org/education/undergraduate/professional_behaviour.asp#teaching (assessed 29 January 2013)
An exploration of the student experience of Early Patient Contact: comparing primary care and hospital settings

E M Clark, A Timm

E M Clark, Faculty of Medicine, University of Southampton, Southampton General Hospital, Mailpoint 801, South Academic Block, Tremona Road, Southampton

Background/Context/Introduction
Early patient contact (EPC) is scheduled by many medical schools to run alongside basic science teaching. It provides students with an introduction to patient care on a structured and occasional basis ahead of full-time clinical rotations. In the literature, EPC is associated with improved student confidence and motivation, as well as strengthened empathy and enhanced communication skills. EPC also seeks to integrate basic science teaching with clinical medicine and is a key contributing aspect to the socialisation of medical students into their chosen profession. Ultimately, EPC is intended to soften the transition between pre-clinical and clinical years and seeks to ensure that students do not feel “thrown in at the deep end”. However, EPC can leave some students feeling scared, incompetent, lacking in confidence, especially if something goes wrong or may fear being “in the way”. Moreover, some students worry about invading patient’s privacy or patients not wanting to talk to them.

Whilst there is a wealth of literature on EPC itself, few authors have sought to compare across hospital and community settings. This presentation offers a comparative analysis of the student experience across the different contexts. It will draw out advantages and disadvantages and share insights from current practice within one medical school. Preliminary observations suggest rich data also in terms of student’s hopes and fears about patient contact, students examining their peers and the role of the patient within EPC.

Methodology
A small-scale qualitative study employing focus groups and interviews with second year medical students on a five-year undergraduate programme. The data gathered will be audio-recorded, transcribed and analysed using thematic analysis.

Results
Results of analysis will be available in time for the conference.

Discussion and Conclusions
This study will provide insight into how students perceive the role of patients during Early Patient Contact, how the student experience differs across teaching sites and how the student experience of EPC might be improved.

References
2) Bell K, Boshuizen HPA, Scherbier A, Dornan T. When only the real thing will do: junior medical students' learning from real patients. Medical Education 2009; 43: 1036-1043.
The limitations, difficulties and barriers faced by medical students in choosing and attaining a specialty training post

J Muhlschlegel, A Youssef, D Mann, P Fletcher, C Rodd

J Muhlschlegel, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucester, GL1 3NN, UK

Background
This study has ethical approval.

Last year in the UK, only 67.0% of Foundation Year 2 (FY2) doctors progressed to specialty training posts, a 4.3% reduction from 2011. Bristol University graduates were the lowest (48.6%), with 11.8% following alternative pathways in the UK, 29.0% going abroad and 7.8% taking a career break1. Junior doctors apply for their chosen specialty 16 months after qualification which raises several issues. Firstly, they must choose their specialty with little firsthand experience. Only 41% of consultants are employed in the career they chose as a junior2, while 95% of final year medical students feel unhappy and underprepared to make this decision3. Secondly, training posts are competitive and candidates may need to produce a portfolio to support their application. Ensuring a successful outcome may necessitate developing this whilst still in medical school. Although research has identified factors influencing students’ career choices, little work has addressed the issues that hinder students’ selection of the right specialty. Understanding these barriers is fundamental to the development of appropriate professional training.

Methodology
Qualitative data describing the barriers students face were generated through interviewing Faculty from a variety of clinical specialties and roles throughout Severn Deanery. Focus groups were conducted with Year 3 and Year 5 students and FY2 doctors to generate common themes. These themes were used to develop a questionnaire to gain quantitative data from a larger cohort.

Results
A minority of students and junior doctors had any certainty on career choice - despite many of the FY2 doctors undergoing applications at the time of interview. The majority of foundation doctors interviewed had chosen to defer application. Limitations cited include uncertainty of specialty choice and being insufficiently competitive. They did not want to make their career decision any earlier despite most stating that more time was required to be adequately competitive. “Mixed-messages” regarding careers, exams and application requirements were listed as key barriers by all levels. Quantitative results from the questionnaire outlining the views of students and faculty will be presented.

Discussion
Donaldson4 stated that “not everybody can make definitive career decisions early in their postgraduate training. Nor should they be pressed into making premature decisions”. Ironically, to succeed, this may be required. This study suggests that students and junior doctors are not ready for these career choices and highlights significant barriers to making this transition. Significant changes need to occur to professional training to address these limitations.

References
Does teaching hand-hygiene through participation in audit improve students’ competence and compliance in hand washing in the work place?

J Muhlschlegel, D Mann, A Youssef, L Whitton, A Mahendra, G Morris, P Fletcher, C Rodd

J Muhlschlegel, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucester, GL1 3NN, UK

Background and Purpose
This study was granted full ethical approval.
In the United Kingdom there are approximately 300,000 health care associated infections (HCAI) annually, costing the NHS approximately £1 billion per year\(^1\). Up to 30% of these are potentially preventable by better knowledge and application of infection prevention procedures; including hand-hygiene. Despite being competent in hand-hygiene, medical students and doctors were non-compliant in 41% of opportunities: the lowest rates across all health care professional domains\(^1\). Effective training improves compliance and subsequent reductions in HCAI\(^2\). Using audit as a learning tool improves hand hygiene competence but no studies have assessed whether this leads to improved compliance of medical students\(^3\). Cherry’s meta-analysis of hand-hygiene teaching methods\(^4\) demonstrated that multi-modal and frequent sessions improved overall compliance. Students performing a hand-hygiene audit as a tool for improving learning in hand-hygiene was not discussed.

Methodology
Final year medical students at two separate, geographically contained Bristol University academies received the same hand-hygiene training, focusing on the 5 moments of hand-hygiene using the glow-box for assessment. An intervention group at one of these locations additionally received hand-hygiene audit training with a 30-minute tutorial by an infection control nurse based on the Lewisham auditing tool. During this same training session, these students completed a hand-hygiene audit on the ward and presented their findings to their peers. Following consent, both the control and intervention group were assessed at week 2 and 10 of their rotations. Their compliance with the 5 moments of hand-hygiene was recorded. Qualitative data on both groups’ perception of the importance of hand-hygiene were collected using a survey distributed before the teaching session and the end of their rotation.

Results
The survey demonstrated that the majority of students acknowledged the importance of hand-hygiene for patients’ outcomes and believed that they were compliant in the majority of situations. Student feedback on the efficacy and relevance of the intervention was very positive. Quantitative results outlining the compliance rates for both groups will be presented.

Discussion and Conclusions
Teaching using audit helps students to attach clinical perspective to the skills they have learned in the classroom. It highlights for them situations when the 5 moments might be difficult or commonly forgotten. Given the poor compliance rates of medical students in hand-hygiene and the consequent effects on patient safety, improved techniques to teach these skills need to be identified and introduced to our curriculum.

References
What influences how accurately students self-evaluate their performance in an OSCE scenario?

J Muhlschlegel, D Mann, A Youssef, P Fletcher, C Rodd

J Muhlschlegel, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucester, GL1 3NN, UK

Background
This project was granted full ethical approval.
Accurate self-evaluation of performance is an essential skill for medical students and doctors, at all levels. This allows us to identify our strengths/weaknesses and modify their learning styles and processes accordingly. Yet, it has been demonstrated that medical students have a low to moderate ability to self-assess their performance \(^1\). In order to calculate the degree of their inaccuracy, the same assessment tool needs to be used by both the examiner and self-assessor, with independent reporting of individual clinical skill domains. A recent meta-analysis \(^2\) reported that there was an “alarming” deficiency in studies that have adequately reported the effect of different moderators (including age, gender and competency assessed) on direction or degree of inaccuracy and how this may vary according to clinical skill assessed. To improve self-evaluation skills medical educators need to know which students are being inaccurate and in what way. This study explores these issues with the aim of helping students to develop and improve these skills.

Methodology
Third and Fifth year medical students at Gloucestershire Academy (University of Bristol), completed an OSCE, assessing clinical knowledge, history taking, examination, communication and technical skills as identifiable competencies. Each student marked their own performance in each of these domains using the same marking criteria as the examiners, prior to receiving feedback. They provided information on age, gender, previous degrees, primary languages, ethnicity and nationality. Students additionally completed a questionnaire to evaluate how useful they found the process of self-evaluation in guiding further revision for their final examinations.

Results
Overall the students described self-evaluation in a learning OSCE scenario as an extremely useful exercise which would influence and direct further revision for their final exams. Data focusing on how moderators influence self-evaluation ability in each different examination domains will be presented.

Discussion
Self-assessment and reflection is a critical skill. Insight into our own ability is essential for ensuring patient safety. Our goal as educators must be to encourage a shift in attitude from “how good am I?” to “how can I get better?” \(^3\), which can only be achieved with clear insight into one’s own strengths and weaknesses. This research has shown that students themselves find this a useful exercise in directing their learning.
A clearer understanding of which students make which mistakes when self-assessing can only help us guide students to improve in this process so that they become more reflective learners and clinicians.

References
A video-reflexivity study of feedback in a clinical skills environment

L M Urquhart, J S Ker, C E Rees

L M Urquhart, Centre for Medical Education, Taypark house, 484 Perth Road, Dundee, DD2 1LR

Background and purpose
Feedback is one of the biggest influences upon student learning (1, 2). However, feedback in medical education is made more complex by the multiple contexts within which learning occurs (3). There is currently a gap in the understanding of students’ and tutors’ perceptions of feedback and how these might compare across the diverse learning environments. The purpose of this study was to explore the perceptions of feedback in one of these settings: the clinical skills environment. Using video we captured various learning experiences which occurred within the clinical skills environment at one UK medical school. Through reviewing this data with student and tutor participants in “reflexivity sessions” we sought to compare how students and tutors conceptualised the feedback seen and to further explore what affected the value that students placed upon that feedback.

Methodology
A video reflexivity methodology was employed (4). Ten teaching sessions across the first three years of an undergraduate curriculum were identified by the researcher. These included sessions on communication skills, practical skills, examination skills and simulated emergency scenarios. Informed consent was obtained from students, tutors and simulated patients prior to filming. The footage was edited by the researcher into one short film per year group using Avid software. The content for this video was selected based upon interesting learning and feedback episodes as determined by the researcher. Students and tutors were then invited separately to view this footage and to have a discussion about the feedback seen in the reflexivity sessions. These sessions were also filmed and the discussions transcribed.

Results
The discussions from the reflexivity sessions formed the primary data and these are currently being coded using Framework analysis (5) with Atlas Ti software to understand the key themes identified by students and tutors regarding feedback in the clinical skills setting. In addition, excerpts from the teaching sessions that were discussed during the reflexivity sessions are also being transcribed and coded as secondary data. The key themes shall be presented at ASME.

Discussion and conclusions
We anticipate that this innovative study shall provide new insights into students’ and tutors’ conceptualisations of feedback within the clinical skills setting. This will provide improved theoretical knowledge of the factors that influence tutor and student perceptions of feedback and will enable us to make recommendations for educational interventions in improving both the delivery and receipt of feedback within clinical skills.

References
Assessment of the effectiveness of undergraduate pain education at the University of Southampton’s Faculty of Medicine in preparing students for clinical placements

K Smart, S Curtis

K Smart, Medical student, Faculty of Medicine, University of Southampton, Building 85, Highfield campus, Southampton, SO171BJ

Background and objective
Pain is a very common complaint and is a major public health problem in the UK\(^1\). Effective pain management is essential for the well-being of patients, patients’ families and friends\(^2\). For this to be achieved it is vital that doctors have a good understanding of pain and pain management, this necessitates that undergraduate curricula for medical students includes effective pain education\(^3\). Pain is a complex topic that needs careful planning in the way it is taught and therefore good teaching is essential\(^4\). Doctors must have a good understanding and knowledge of the mechanisms of pain and pain management to be able to treat patients effectively\(^5\). Students also require a good understanding of pain and pain management to help them to maximise their learning experiences from patients and healthcare professionals while on clinical placements\(^6\). At the University of Southampton’s (UoS) Faculty of Medicine, there are twenty-three hours of pain education in the first three years of the course\(^6\). However, the effectiveness of this pain education in preparing students for clinical placements has not been ascertained. The main objective of this research is to determine whether students at the UoS’s Faculty of Medicine feel prepared in their understanding of pain and pain management in clinical situations and to identify any gaps in their knowledge.

Methodology
A cross-sectional study using a questionnaire at the UoS’s Faculty of Medicine. Participants will be students at the UoS’s Faculty of Medicine on the BM5/6 programmes in the cohorts 2008, 2009 and 2010. The number of participants is still to be confirmed as questionnaires are still being completed.

Results and Conclusion
Results of this study aim to identify aspects of pain and pain management that students feel well prepared for and less well prepared for on clinical placements. The conclusion will highlight areas of good practice in pain education and make recommendations to the UoS’s Faculty of Medicine regarding the current BM5 undergraduate pain curriculum

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Simulated prescribing: Now they are doctors

VM Taylor, A Hawkins, M Masiello, G Woodfield, K Jones, AE Stanton

VM Taylor, Clinical Education Fellow, University of Bristol Academy, Great Western Hospital, Swindon

Background and purpose
Prescribing is one of the key skills of a doctor but has been identified as an area in which new graduates are under-prepared (1, 2). Furthermore, a recent report by the GMC (3), found an error rate of 8.4% in prescriptions written by Foundation Year 1 (FY1) doctors. In late 2011, a series of simulated prescribing tutorials were delivered (either tutor-led or self-directed), to a cohort of final year medical students. A decrease in the number of prescribing errors and improved confidence in prescribing were demonstrated (4). We aimed to ascertain the impact of these tutorials now that the former students have qualified and are prescribing in practice.

Methodology
Of the 35 students who undertook the simulated prescribing tutorials, we contacted those for whom we had a forwarding e-mail address (n=23), with a link to an online questionnaire. We used semantic differential scales and free text boxes to collect data about self-judged ability and confidence in prescribing, as well as how we might improve these tutorials further. In parallel, we collected confidence scores from 11 FY1 doctors who had not received the tutorials. Descriptive statistical analyses were performed on the quantitative data and qualitative data were analysed according to common themes.

Results
Our response rate was 57% (13/23). The mean self-assessed scores for the impact of these tutorials on improving safety and confidence in prescribing were 5.8/7 and 5.2/7 respectively. All participants would recommend the tutorials to current final year medical students. The average self-assessed confidence scores for prescribing in specific medical emergencies ranged from 4.8/7 (left ventricular failure) to 5.8/7 (hyperkalaemia). The scores were consistently higher from the FY1 doctors who had received the tutor-led tutorials, compared to those who had not (although this did not reach statistical significance). Themes that emerged as areas of least confidence included: drug interactions and prescribing in renal failure.

Discussions & conclusions
Our findings suggest that simulated prescribing tutorials have a long-lasting and beneficial impact upon students’ confidence and self-judged ability to prescribe. The GMC recommends that: ‘practical prescribing should be part of every undergraduate programme’ (3); low-fidelity simulation such as this has the advantage of creating a safe environment in which to practice this key skill.

References
Peer Assisted Learning in undergraduate paediatric training

J Ho, A Thomas

J Ho, Consultant Paediatrician, Whipps Cross University Hospital, London

Background
Peer Assisted Learning (PAL) has been defined as the development of knowledge and skill through help and support among status equals or matched companions 1. In environments where senior students teach junior students, it is also referred to as ‘near peer’ learning. The benefits and effectiveness of PAL have been proven in studies measuring its positive effects on exam scores, student course satisfaction, and professional and personal development, as it can give rise to a strong social support system 2-4. However, PAL has rarely been studied in undergraduate paediatric training.

Objective
To evaluate perceptions of PAL among medical students during their first clinical attachment in paediatrics.

Methods
An SSC (Student Selected Component) in Medical Education and Paediatrics was created for 5th year medical students. A 5th year student, who had previously completed the 4th year paediatric rotation, was trained in educational concepts and delivered two PAL sessions to 4th year students from three medical schools, who were currently on their paediatric rotation. The 5th year student also acted as a tutor supporting the 4th year students. Feedback and perceptions from each group were collected using anonymous questionnaires and a traffic light post-it note feedback system. The results were partially analysed, and the themes generated were further explored through two consultant-led focus groups. The discussions were transcribed and analysed qualitatively using a thematic analysis approach. The peer tutor also self-reflected the experience as part of the education portfolio for the SSC. A variety of research methods were used in order to achieve a methodological triangulation and draw conclusions.

Results
Overall, the students’ perceptions of PAL were that it was positive for their learning, and they reported that it was a useful and effective adjunct to traditional hospital teaching. The analysis of the data resulted in the emergence of three key themes: the less formal learning environment, the benefits of flexibility in terms of teaching style and content delivery, and the concerns on quality and quality control of the PAL sessions.

Discussion and Conclusions
This study is significant as it shows universal acceptance and approval among students towards PAL. Due to restrictions on resources in medical education, PAL is potentially an effective way of utilising existing institutional assets at low cost. The study recommends further research to explore how PAL can feasibly be employed to broaden and enrich the learning environment in a cost-effective way within different medical institutions.

References
Students’ perceptions of the purpose and use of an electronic portfolio

R Belcher, LJ Smith, SB Naidu, D Gill

R Belcher, Clinical Teaching Fellow, UCL Medical School, London, UK

Background and Purpose
Portfolios are increasingly being used in both undergraduate and postgraduate medicine for assessment and reflection, and to support revalidation. Initial reactions to portfolios have previously been reported as negative\(^1,2\), although they also improve over time\(^3\). Previous research had also shown that students are anxious about portfolios, and don’t fully understand their purpose\(^3\). We recently introduced the electronic portfolio (ePortfolio) used by most Foundation doctors and many postgraduate trainees in the UK. This study was part of our evaluation after the first year of the ePortfolio, and examined students’ views on the ePortfolio. Our research questions were:

1. How do students perceive the purpose of the ePortfolio?
2. What advantages and problems do students encounter when using an ePortfolio?

Methodology
Fifteen students gave their opinions at semi-structured focus groups and we conducted a thematic analysis. SBN is a student who used the ePortfolio in the introductory year.

Results
Students perceived differences between the intended purpose of the ePortfolio and its use in reality. In particular, several aspects of the use in reality tended to make it feel like a “tick box exercise”. More positively, students perceived the ePortfolio as authentic and part of the way of life for doctors, and using the same system helped them feel they are integrating in to the profession. Students identified a number of problems, and in particular were highly critical of the feedback they received using the ePortfolio. Students identified a number of developments that would make the ePortfolio more useful to them.

Discussion and Conclusions
Previous studies have demonstrated mixed views on the contribution of portfolios to feedback to students\(^4,5\). The move to an ePortfolio presents new challenges. We will present faculty and students ideas for maximizing the potential of an authentic professional ePortfolio in the undergraduate setting.

References
Heterogeneity of medical student experiences during clinical attachments

M Bowen, N Kumar, D Bowrey

M Bowen, Core Surgical Trainee, Dept. of Surgery, Level 6 Balmoral Building, Leicester Royal Infirmary, Leicester, England

Aim
The day-to-day education of medical students is delivered by large numbers of personnel. The impact of this on student learning experiences remains unclear. The aim of this study was to determine how students spent their time during a Perioperative Care attachment, encompassing the disciplines of Gastrointestinal and Vascular Surgery, and Anaesthesia.

Method
Students participating in the study self-completed a 5-day diary during a Perioperative Care attachment. They recorded each learning encounter noting the duration, the setting and details about the supervisor. Participants also rated the perceived educational value of each learning encounter.

Results
35 students returned completed diaries between February and May 2012. Students spent on average 33 hours (range 26-47) in learning encounters over the 5-day period assessed. They spent a mean of 15 hours per week (range 0-37) in the operating theatre, a mean of 14 hours (range 0-29) on the wards and a mean of 3 hours (range 0 - 10) in outpatient clinics. The perceived educational value was rated as good or very good with the following frequencies: theatre 86%, wards 84% and clinics 92%. Multi-disciplinary team meetings received the lowest ranking of all educational encounters (61% good or very good), although minimal time was spent in this setting (mean 1 hour, range 0-5). Students spent a mean of 25 hours (range 0-42) and 9 hours (range 0-36) in surgical and anaesthetic learning encounters respectively. Students rated the perceived educational value of the surgical and anaesthetic encounters as good or very good, 82% and 93% of the time respectively. The majority of student education was consultant led (mean 23 hours, range 10-38). The remainder was delivered by specialist registrars, (mean 4 hours, range 0-21), other junior doctors (mean 3 hours, range 0-12) and allied healthcare professionals (mean 1 hour, range 0-6). Students were unsupervised for a mean of 3 hours (range 0 - 13). There were no significant differences in perceived educational value of encounters according to the supervisor with all categories of supervisors receiving ratings of good or very good over 80% of the time.

Conclusions
There was significant heterogeneity in student encounters during the course of a Perioperative Care attachment. In spite of this, students did not report major differences in perceived educational value between the different learning environments. Approximately, two thirds of the student education was consultant led.
Promoting the use of evidence-based resources to undergraduate medical students

E Rees, Y Sinha, AR Chitnis, S Renwick, V Fotheringham, J Archer

E Rees, School of Medicine, Keele University, Staffordshire, ST5 5BG, UK

Background
Many medical schools teach the principles of evidence based medicine (EBM) as part of their undergraduate curriculum. Medical students perceive EBM to be valuable to their undergraduate and postgraduate career. There are, however, many barriers to students applying EBM principles to their studies. One such barrier is effective searching for evidence based guidelines and identifying high quality resources. NHS Evidence is a service provided by the National Institute for Health and Clinical Excellence (NICE) that enables access to authoritative clinical and non-clinical evidence and best practice through a web-based portal. The aim was to promote the use of, and improve students’ ability to find, evidence-based resources.

Methods
Workshops were organised and delivered by fourth year medical students, having first received training from NICE to become NHS Evidence ‘student champions’. The workshops covered basic principles of EBM and focused on retrieving EBM resources for study through the NHS Evidence portal. The scheme was evaluated using a pre-workshop survey and an 8-12 week post-workshop survey and focus group.

Results
A total of 191 medical students attended the workshops (Year 1, n=44. Year 2, n=82. Year 3, n=64). 90% and 57% of attendees completed the pre- and post-workshop surveys respectively. Pre-workshop: 64% of respondents searched for information online (as part of their studies) more than once a day, 52% of respondents searched for evidence-based recommendations and guidelines. Post-workshop: 86% of respondents found NHS Evidence useful or very useful, 92% of students had used NHS Evidence since the workshops. Pre-workshop, 29% of respondents felt confident or very confident searching for health and social care information online, compared to 87% post-workshop.

Table 1 demonstrates students’ preferred resources for studying, pre- and post-workshop.

<table>
<thead>
<tr>
<th>Source</th>
<th>Pre-workshop (%)</th>
<th>Post-workshop (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search engine</td>
<td>27.7</td>
<td>16.5</td>
</tr>
<tr>
<td>Textbooks</td>
<td>14.2</td>
<td>34.0</td>
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<td>Journals</td>
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<td>5.2</td>
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<tr>
<td>Websites</td>
<td>27.7</td>
<td>13.4</td>
</tr>
<tr>
<td>Evidence-based guidelines</td>
<td>0.7</td>
<td>30.9</td>
</tr>
</tbody>
</table>

Discussion and Conclusions
The results show that whilst many students were aware of evidence-based resources, they tended not to use them as their preferred source. The workshops were effective in promoting the use of evidence-based guidelines. The workshops were received well by students with one student commenting, “due to the vast array of material available online, it is good to have a resource which you know can be trusted and provides concise, relevant information”.

References
How do medical students become teachers?

A Shah, E Fowler, S Thornton

A Shah, Medical student, Faculty of Medicine and Dentistry, University of Bristol, United Kingdom

Background and Purpose
Teaching is a common thread that weaves its path through our professional lives. It is enshrined in our code of practice and features in our daily activities. Thus, the importance of teaching colleagues and students is well known to most doctors. Teaching doctors and students is integral for the care of patients\(^1\), allowing them to become effective communicators, and enhancing the physician-patient interaction. Furthermore, it allows students to become better learners themselves\(^2\). The aim of this study is to investigate what experience final year medical students at the University of Bristol have had about learning to teach. The aim is to look at student views on how we are incorporating learning to teach into the medical curriculum in Bristol, and also what other extracurricular sources are used by students to help develop their teaching skills other than those formally provided.

Methodology
The methods of this study include focus groups and a questionnaire assigned to final year medical students at the University of Bristol. Full ethical approval has been granted. The focus groups will elicit the views of current students in regard to how they learn to teach at medical school. A questionnaire will then follow to obtain information about how students learn to teach, how they feel about their teaching ability and what additions they feel would help them gain a foundation in teaching once their career as a doctor begins. Following the analysis of results, a program can be designed for medical students to participate in whereby they can learn core teaching skills transferable to their medical career.

Results
Results from the focus group and the questionnaire will be presented once the findings are obtained.

Discussion and Conclusions
“If you are involved in teaching you must develop the skills, attitudes and practices of a competent teacher.\(^1\)” This essential skill in Medicine is arguably overlooked in medical school teaching, made evident by the lack of current literature based around the topic. This study will highlight the current measures available to medical students in Bristol and open a window of possibilities to improve the sources available to medical students both locally and nationally, to enhance their ability to teach.

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Investigating and improving patient participation in undergraduate obstetric and midwifery clinical teaching

A Woolner, M Cruickshank

A Woolner, Honorary Research Fellow, University of Aberdeen and Specialty trainee registrar year 1 in Obstetrics & Gynaecology, Aberdeen Maternity Hospital, Foresterhill, Aberdeen, Scotland, United Kingdom

Background and Purpose
Most patients are willing to participate in student training. However, patients are more reluctant to engage in clinical teaching for Obstetrics and Gynaecology, particularly on labour ward. It is vital that both medical and midwifery students gain clinical experience of antenatal, intrapartum and postnatal care. This study aimed to investigate the views of antenatal women on medical and midwifery student training. The results will be used to develop strategies to improve patient participation in undergraduate clinical teaching in the maternity hospital.

Methodology
Pregnant women were invited to participate in an anonymous cross-sectional survey at antenatal outpatient clinics. Paper questionnaires included simple tick box questions as well as free text responses to allow further exploration of viewpoints.

Results
53% (110) of women would agree to a medical student’s assistance with delivery of their baby and 61% (127) respectively for a midwifery student to assist. 84.1% (174) of women were willing to undergo an obstetric abdominal examination by a medical student and similarly 87.0% (180) for a midwifery student. Women were significantly more willing to accept midwifery students compared to medical students (p<0.01). Women who said they would decline students expressed concerns over lack of student supervision, student training level, need for “experienced” staff, desire for privacy and concerns regarding first or complicated pregnancy. Progress of pilot educational interventions will also be presented.

Discussion and conclusions
Patients may be more willing to accept practical involvement of medical students if they knew prior simulator training was undertaken. Targeted information regarding issues raised– such as roles and capabilities of students, supervision, prior teaching as well as rationale for obstetric and midwifery teaching could improve patient participation. Interactive educational interventions may increase patient willingness for student involvement as a previous study found detailed patient leaflets did not improve patient participation.

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How Should Undergraduate Musculoskeletal Teaching Resources be Evaluated?

K Scott, D Coady

K Scott, Dept of Rheumatology, City Hospitals Sunderland NHS Foundation Trust, Sunderland, United Kingdom

Background and Purpose
In the last 10-15 years medical education has changed dramatically with rapid expansion of student numbers which has impacted on teaching methods. Teaching has become more student-focused than didactic. New technologies have allowed teaching and learning to occur in novel ways and there has been a rapid expansion in available teaching resources. Investment in new resources is costly both in financial commitment and time. Being able to prove that an educational resource improves outcomes is potentially of great value, both for students and for their subsequent patient care.

An evidence base within medical education is required as it is within clinical medicine. How do teachers know which resources are most effective to assist student learning? How should students choose which resources to use? What evaluation of these resources would assist with this decision making? Is it possible to develop a generic tool to evaluate teaching resources? The Arthritis Research UK ‘Clinical assessment of the musculoskeletal system’ handbook and DVD is one such resource and is the focus for this study.

Methodology
An initial literature review was undertaken with additional input from the Northern Musculoskeletal Research Group in Newcastle, including members previously involved in developing teaching resources and the British Society of Rheumatology education department. Interviews are being conducted with educationalists to explore teaching resource evaluation in depth and results are to be consolidated following modified Delphi method consultation with educationalists, clinical teachers and students.

Results
Preliminary results indicate that outcome measures commonly employed in evaluating teaching resources include both qualitative and quantitative methods. Self and peer-evaluation have also been used. There is little literature specifically regarding musculoskeletal education. Evaluation is often conducted during initial development and later using cohort studies pre and post inclusion of the resource within a curriculum.

Discussion and Conclusions
There are an expanding number and variety of available teaching resources for use in musculoskeletal undergraduate education. Evaluations assess various outcomes by various methods and at different time points following the intervention, but there is no accepted standardised approach. The relative perceived value of different outcomes such as confidence gain versus skills learned also differs. Which outcome measures and methods to use is the focus of this study with a view to developing an evaluation tool which could be applied to different undergraduate musculoskeletal teaching resources. This may also be applicable to other areas of medical education.

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Health Inequalities learning in the Undergraduate curriculum: a Delphi process to establish consensus

R Ayres, A Williamson

R Ayres, Lead for Population Health, Plymouth University Peninsula Schools of Medicine and Dentistry UK

Background and purpose
Inequalities in health are persistent and pervasive. Health services are often worse for those that need them most1, whilst the Marmot review has drawn attention to the need for doctors to engage with the underlying social determinants of health2. The Royal Colleges of General Practitioners3 and of Physicians4 have published reports on the role of doctors in reducing inequalities. In 2008 the Academy of Medical Royal Colleges published a consensus document on a health inequalities curriculum for specialist training5, but no such consensus exists for undergraduate education. The Health Inequalities Standing Group of the Royal College of General Practitioners (HISG) and the Institute of Health Equity at UCL has launched a Delphi round6 of all the UK medical schools and key stakeholders such as the medical colleges, BMA and GMC to seek to do this.

Methodology
For the first round of the Delphi, we produced a ‘starter’ list of intended learning outcomes (ILOs) mapped to the GMC “Tomorrow’s Doctors” 2009 which by consensus from the HISG might represent core learning for all medical undergraduates. We asked - should they be core learning? Are they additional competencies for interested students, or are they irrelevant? We solicited further core or additional ILOs and also existing examples of good practice. We used a variant of snowball sampling7 to reach all 31 UK medical schools by utilising our existing network of contacts from HISG members and the Institute of Health Equity. A second round of the Delphi will launch in February 2013 and will invite comments on the collated results of round one.

Results
Results from the Delphi survey including responses to the proposed ILOs, comments and examples of good practice will be presented, along with comment from the Delphi team.

Discussion and Conclusions
We will report our findings as a “core curriculum on health inequalities learning for UK medical schools”. It will contain ILO’s that all medical schools can incorporate into their curricula and additional ones that can be used for student selected components or elective study. It will provide examples of existing good practice that can be used to develop new teaching or revamp existing courses.

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Understanding reasons for help seeking for mental wellbeing issues among undergraduate students

A Laidlaw, J McLellan, G Ozakinci

A Laidlaw, Medical School, University of St Andrews, St Andrews, Scotland

Background and purpose
Studying in higher education is a time of many transitions and challenges in students’ lives; living away from home for the first time, learning independence, forming adult relationships, making financial decisions in addition to the pressure of exams. Moreover, this is a crucial period of psychological and biological change when many new health behaviours are being adopted or discontinued(1, 2). High levels of mental health and wellbeing difficulties have been found amongst students, with up to 29% of students reporting clinical levels of distress(3, 4). There is some evidence that exposure to psychological issues through educational components of undergraduate courses may impact on attitudes towards mental health, for example in medical students(5) and this may have implications for seeking help. Research has shown that amongst the general student population stigma relating to mental health issues may not be a barrier to seeking help(6), whilst amongst health professional students, perceptions of difficulties relating to fitness to practice and lack of confidentiality appear to result in a reluctance to seek help for mental health difficulties or a stigma associated with doing so(7, 8).

Methodology
This study examined attitudes towards mental health and wellbeing and help seeking among medical and non-medical undergraduates. We conducted semi-structured interviews with 20 undergraduates (2 male and 2 female studying; Medicine, Psychology, Biology, Physics and English). The interviews were audio-recorded, transcribed verbatim, and thematically analysed.

Results
We identified four themes: perceptions of mental health and wellbeing; experience of stress and student identity; achieving positive mental wellbeing; and, help seeking behaviour for mental wellbeing difficulties. Within these themes, differences emerged between medical and non-medical undergraduates. For example, sources of stress differed, for medical students this included high workload and competitiveness among students. Additionally, there were perceptions of being stigmatised with respect to seeking help for mental wellbeing difficulties among medical students due to fitness to practice implications and not wanting to appear to be unable to cope.

Discussion and Conclusions
In conclusion, unhelpful attitudes towards experiencing mental wellbeing difficulties are present among medical undergraduates at an early stage of their training. Medical educators need to be aware of this perception as it may prevent undergraduates seeking help.

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The West Yorkshire Mentor Scheme: teaching and development opportunities for Foundation doctors and medical students

G T Tran, K Tran, R Fuller

G T Tran, School of Medicine, University of Leeds, Leeds LS2 9JT, UK

Background and Purpose
Peer teaching and near-peer teaching play an essential educational role by increasing motivation, positive role modelling, encouraging participation in clinical activity and creating a nurturing environment in which mistakes can be made and corrected. Peer-assisted learning can be a useful adjunct to faculty teaching, utilizing the cognitive-congruence hypothesis, and therefore able to offer an alternative explanation of concepts to that provided by faculty. The informal and empathic nature of the peer-tutor relationship, so called 'social congruence,' has also been shown to play an important role.

Formal educational activities by newly qualified doctors to final year students have clearly established benefits. However, there is little evidence regarding the incorporation of a mentoring role of junior doctors when teaching final year medical students.

The West Yorkshire Mentoring Scheme (WYMS) was created to provide a framework for clinical supervision, teaching and support by Foundation Year (FY) doctors for final year medical students. Although established literature highlights the benefits of near peer teaching, little has explored the accompanying mentoring role. This study explored the impact of the WYMS for both FY doctors and final year medical students.

Methodology
FY1 mentors were individually paired to fifth year medical students from the University of Leeds. The scheme aimed to provide support, teaching and skills development for both mentors and mentees as students rotate through clinical placements and assistantships. At the end of each academic year, FY1s and medical students were invited to complete an online questionnaire to highlight their experiences. This data was used to explore the impact of the scheme and thematic analysis was employed to determine the results.

Results
49 medical students and 122 FY1 responding. 98% of mentors and 100% of mentees would recommend the scheme to their peers. Thematic analysis demonstrated that the scheme proved useful in skills development, teaching supervision and increasing preparedness for work.

Conclusion
WYMS is a well received and beneficial scheme which is an excellent, local adjunct to clinical placements. It has shown significant value to final year students and their FY mentors, assisting in the development of student assistantships and clinical placement design. For FY doctors, it is a rewarding scheme which develops essential attributes of time management, communication and leadership for mentors and those junior doctors who organize the scheme.

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How do social networks evolve during students’ time at medical school?

R Isba, R Howarth, J McAleer, K Eames

R Isba, Clinical Lecturer in Medical Education, Lancaster Medical School, C43 Furness, Lancaster University, LA1 4YG

Background and Purpose
Social Network Analysis (SNA) is a method of studying the relationships between individuals in the context of their social structure.1 SNA techniques have been widely used in many subject areas including sociology, business, and public health.2,3 The use of SNA in medical education remains a relatively novel idea, but may be useful when thinking about the acquisition of knowledge and skills, for example those surrounding professionalism.

The aim of this study is to look at how social networks develop throughout students’ time at medical school, and in the future will look at how social networks may influence the acquisition of professional behaviours. It builds on an earlier study done in this area.

Methodology
Last academic year (2011-12), an SNA study carried out at Lancaster Medical School mapped the social networks of all the students at the medical school (n=248) at a single point in time. This new work follows up a sub-population of the original medical students. This cohort (n=48) of medical students (currently in Year 2) is participating in the study at three points during the academic year 2012-13. At each data collection point, the students’ social networks will be mapped by asking them to complete the same questionnaire that they completed in 2011-12 (detailing their relationships with all other medical students in the medical school). At the second data collection, students will also complete the Trait-Meta-Mood-Scale, a measure of emotional intelligence.4 Data will be analysed using UCINET, NetDraw, and RSiena.

Results
The data from 2011-12 demonstrated that the strongest interactions between students were within years i.e. amongst near peers. Last year, the students in the study cohort (first years at the time) had an average out-degree score (the number of connections a student claims to have) of 68 (range 34-159) out of a possible 247. However, the first data collection from this year found that this had increased to 121 (range 48-172), demonstrating that students have developed many more relationships in the intervening 12 months. Results from the subsequent data collections will also be presented.

Discussion and Conclusions
This study will make it possible to determine how the social networks of medical students evolve during their first and second years at medical school. In the future it may be possible to assess emotional intelligence scores and see if they are related to students’ positions within the larger social network of the entire medical school.

References
Cognitive Strategies used in diagnostic reasoning by 3rd year medical students from an integrated curriculum

W Scott-Smith

W Scott-Smith, Brighton & Sussex Medical School, UK

Background
Diagnostic reasoning occupies a fundamental position in clinical practice. Underpinning this complex art is a number of cognitive strategies which are gradually assimilated through a mixture of experience, acquired knowledge and training. These strategies include processing and structuring information using increasingly complex causal networks, decision making and judgment, alongside the emergence of metacognition, which has been called the ‘seventh sense’ (Schmidt et al, 1990; Maudsley & Strivens, 2000).

What cognitive strategies are being used by these students who find themselves at a key transitional point in the curriculum?

Methodology
The conceptual focus of this study was to use Dimensional Analysis (DA) to build theory from the perspective or ‘lens of the medical student’, using Symbolic Interactionism as its theoretical lens (Schatzman, 1991). Data was analysed from filmed, simulated consultations between 3rd year medical students and a standardised patient (SP), followed by reflective analysis from the participants in discussion with the researcher.

Results
Emergent themes point to the central organising concept of cognitive adaptation during an important transitional stage in the curriculum. This is characterised by the use of learnt cognitive strategies (e.g. the format of the traditional medical history and the SOCRATES mnemonic) which act as failsafe mechanisms in maintaining process within the simulation. However there are examples of naive cognition in applying aspects of conditional reasoning and interpreting clinical probability rules in the diagnostic process. Such guidelines require more careful explanation through teaching.

Importantly there is evidence of both metacognition and reconstruction of clinical skills, such as history taking and diagnostic thoughts through reflective analysis and discussion whilst watching the simulation back. This confirms that under the right conditions simulations can provoke a constructive (intrinsic) perspective on cognitive skills which can advance professional development in the diagnostic reasoning process (Mezirow, 1991: Parker & Myrick, 2010).

References
Widening Access to Medicine
Introduction
As part of their commitment to widening access, almost all of the UK’s 31 medical schools offer access to medicine summer schools to students from lower social classes, who frequently lack self-confidence, underestimate their chances of success and are poorly supported by underperforming schools. Despite widespread use, however, there is a paucity of published work demonstrating their value. In July 2012 the University of Bristol’s Clinical Academy in Swindon ran Dare to Doctor, an access to medicine summer school. The aim of this study was to provide evidence for the role of access to medicine summer schools for widening access.

Methods
Each student (n=24) completed a questionnaire before and after the summer school. They were asked about their commitment to medicine; understanding of life as a medical student and doctor; and self-rated chances of success in applying. The questionnaire used a 5-point scale from strongly disagree to strongly agree, with space for free-text responses. Mean scores for before and after the summer school were calculated, and statistical significance calculated using a Mann-Whitney U test. Students also completed an evaluation, scoring each aspect of the summer school for enjoyment and usefulness. Data was anonymised and all students gave written consent to participate.

Results
56% of students came from non-medical families. After the summer school students rated themselves as better prepared for interviews (Mean score 4.10 vs 2.90, P<0.001) and personal statement writing (4.20 vs 3.20, P<0.001). Before and after the summer school all students felt strongly committed to medicine. Student evaluation was overwhelmingly positive; students particularly valued small group sessions and the role of current medical student facilitators. Most found clinical shadowing to be most enjoyable (81%), and mock interviews most useful (86%).

Discussion and Conclusions
Our data shows that after access to medicine summer schools students feel more confident in facing interviews and personal statement writing, and found the experience both useful and enjoyable. However only students who were already strongly committed to medicine attended. We propose that a different widening access approach is needed for each of 3 distinct student groups: active outreach for those who have never considered a medical career; summer schools to boost confidence in those already interested in medicine; and ongoing support for those completing their applications. This year we are piloting a proactive outreach programme to generate initial interest in medical careers, and hope to report our experiences next year.

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The Use of Feedback Increases Attendance at Surgical Teaching

R Bamford, M Dahill, M Williamson

R Bamford, General Surgical Registrar, Royal United Hospital Bath NHS Trust

Background and Purpose
Weekly Consultant led surgical teaching is an established program at the Royal United Hospital in Bath and yet attendance from juniors is poor. While investigating a cause for this, it was discovered that no feedback was formerly collected from attendees. This is surprising as student feedback has been a prevalent method of evaluating teaching for over thirty years\(^1\). It is also considered an excellent and effective source of evaluating teaching\(^2\). This paper describes how a questionnaire style feedback was introduced and the impact this had on surgical teaching attendance.

Method
Attendance records from three months’ worth of surgical teaching were gathered retrospectively. A feedback questionnaire was then introduced and attendance monitored. Students attending the session were not made aware of the new interest in the attendance and were encouraged to attend as usual. The questionnaire was designed to evaluate the quality and appropriate level of teaching using a five-point quality scale from Poor (0) to Excellent (4). The feedback results were collated and analysed before being emailed directly to the teachers.

Results
Fourteen junior doctors are regularly available to attend the teaching on a weekly basis. Prior to implementing the questionnaire, average attendance was 46% (6.5/14). After the implantation of the questionnaire, the average attendance increased to 78% (11/14). Overall feedback from the sessions has ranged from 3.1/4 to 4/4 with an average of 3.6/4. Students consistently gave positive feedback regarding stimulation of interest and the information given. Negative comments were most often associated with the level of material given being greater than required for junior doctors and a lack of interaction within the sessions.

Discussion and Conclusions
The implementation of feedback to surgical teaching sessions has improved attendance at sessions from junior staff. Feedback is such an integral part of modern education that perhaps without it students questioned the validity of the sessions. It is also possible that students felt the sessions were not good enough and did not have the perceived ability to improve them. It is not possible at this stage to accurately comment on the standard of teaching, however, it is hoped that with collated feedback, areas can be targeted for improvement. With the introduction of revalidation this feedback will also benefit clinical teachers and may help to improve the standard of teaching.

References
2. Arreola RA. Developing a Comprehensive Faculty Evaluation System: a handbook for college faculty and administrators on designing and operating a comprehensive faculty evaluation system (2e). Anker, Bolton, MA. 2000
Foundation Year One Doctors’ Perceived Competence in Urology Before and After Training

H Satherley, RD Napier-Hemy, IG McIntyre

H Satherley, Foundation Year 2 Doctor, Manchester Royal Infirmary

Background and Purpose
Exposure of medical students to urology patients and issues can be variable and at present there is no nationally accepted urology curriculum applied by medical schools\(^1\). Tomorrows’ Doctors\(^2\) notes that all medical students should be able to insert male and female catheters and perform urine ‘multistix’ analysis. Manchester Royal Infirmary is a large Tertiary Urology Centre and Foundation Year One (FY1) Doctors are required to accept, clerk and manage a range of urology problems. The aims of this project were to (1) identify whether FY1 Doctors met the minimum standards established in Tomorrows’ Doctors and (2) establish whether a teaching intervention could increase FY1 Doctors perceived confidence in dealing with common acute and ward based urology issues.

Methodology
This is an audit project with an active teaching intervention. A questionnaire was used to assess FY1 Doctors perceived levels of confidence at a range of urology skills and knowledge, awareness of trust policy and documentation and experience of catheterisation and urine ‘multistix’ analysis. The questionnaire was completed a week before and 4 weeks after a teaching intervention. The teaching intervention was based on the Trust urology guidelines and covered basic urology procedures and the clinical assessment and documentation expected for urology patients. 20 FY1 Doctors completed the questionnaire.

Results
Before training all FY1 Doctors had experience of urine ‘multistix’ analysis and had completed a male catheterisation on a patient. Five out of the 20 FY1 Doctors had not performed a female catheterisation on a patient. One of the five doctors had also not observed female catheterisation or performed the skill on a model. Confidence was rated out of 5 (1 = not confident and 5 = confident). Mean confidence across the skills delivered before teaching was 2.9 and after teaching was 3.4. Following teaching awareness of the trust guidelines and documentation increased from 25% to 100% and 30% to 89% respectively. FY1 Doctors also identified areas of further training needs.

Discussion and Conclusions
This project demonstrated that not all FY1 Doctors achieved the minimum standards as set out in Tomorrows’ Doctors and that low levels of confidence in urology skills and issues could be improved by a simple teaching intervention. The teaching also served to introduce FY1 Doctors to the trust guidelines and documents. The teaching intervention was deemed as successful and a further revision aid is planned to help satisfy needs at medical school and FY1 level.

References
Teaching Human Factors to Medical Students - The simulation way

S Pathmanathan, F Chowdhury, J Gosai, R Molyneux, M Purva

S Pathmanathan, Hull Institute for Learning and Simulation, Hull

Introduction
The role of human factors in medical error has been well recognized with 60% of all errors being attributed to human factors particularly problems in communication\(^1\). A preliminary survey of medical students undergoing an optional placement at our simulation centre suggested that they had no or limited knowledge regarding the role of human factors in error. We designed a simulation based half a day course addressing the role of human factors in error and evaluated how effective it was in achieving its objectives.

Methods
We recruited 6 candidates, who were third and fourth year medical students. Prior to the course each candidate was given a questionnaire to assess their confidence in leadership skills, communication, knowledge of human factors and ability to prioritise both non-clinical and clinical tasks. The course commenced with an overview on human factors. A practical session on SBAR was provided. The third session was a 15 minute scenario in a four bedded ward environment - where the candidate had to complete a simple task commensurate with their level of training for each of the 4 patients. As the scenario progressed the candidate was given a number of distractions of varying complexity (from non-urgent to urgent tasks), which they must prioritise and attend to. The candidate was videoed and debriefed with video replay. The scenario was then re-run after the debrief session with a different candidate.

Following the course, a post course questionnaire with similar questions as the precourse one was administered to evaluate the effectiveness of the course.

Results
The medical students showed improvement in their confidence levels in all areas listed above, with significant improvement seen in leadership (2.3 pre vs 3.5 Post) prioritising clinical tasks(1.83 pre vs 3.17 post) and calling for seniors(3.5 pre vs 4.33 post).

Feedback from the trainees on the course was overwhelmingly positive. The scenario and debrief session scored 5/5 from all candidates while the overview on human factors and the SBAR session scored 4.7/5.

Discussion
The increase in confidence levels demonstrate suggest that simulation based educational strategies can be a useful resource to improve an important deficit that currently exists in skills training in the undergraduate curriculum. This deficit also exists in the foundation curriculum and the Collins report recommends the increased role that simulation should play in preparing our junior doctors\(^2\). We have extended this half day human factors course to a full day with further simulation based scenarios and are now offering it to all newly qualified foundation doctors in our region.

References
The case for a mandatory acute medical emergency teaching course at the beginning of FY1

M H Jones, R Cumber

M H Jones, FY2 in Respiratory Medicine, Nevill Hall Hospital, Aneurin Bevan Health Board, 2 King Street, Abergavenny, Monmouthshire, NP75SE

Background

The Royal College of Physicians has highlighted several factors that may compromise timely, high quality care to acutely ill patients. The depletion of junior doctors on ward cover, (due to EWTD) and reduced clinical experience contribute to this. A large systematic literature review concluded that undergraduates and junior physicians lack knowledge, confidence and competence in ALL aspects of acute care including recognition and management of acutely ill patients. This is compounded by increases in age, complexity, comorbidities of patients and a general increase in societal expectations of care. Courses such as IMPACT are aimed at “senior trainees” (CT1 or above). FY1s are not permitted to any study leave and attending such courses would be extremely difficult. It is also well recognised that there can be considerable time between an FY1 clerking a patient and a “senior review” from a Registrar or Consultant.

Aim

i) To identify deficiencies in knowledge or uncertainty in practice that affected FY1 Doctors.
ii) To run a course, covering 10 different topics relating to acute medicine that all FY1s would be expected to manage, or at least have more than a passing familiarity with.
iii) To gain feedback from the students, aiming to improve our teaching sessions in the future.
iv) A pre and post course MCQ would allow objective comparison to see if there has been any benefit.

Method

Two early morning sessions a week were carried out for five weeks. A variety of presenters would be invited to talk about their specialist subject.

1. An approach to managing the acutely ill patient.
2. Cardiology Emergencies
3. Respiratory Emergencies
4. Neurological Emergencies
5. GI Emergencies
6. Interpretation of AXR & CXR
7. Endocrine & Renal Emergencies
8. Emergencies in haematology/oncology/palliative medicine
9. Psychological medicine & management of common poisons
10. Acute deterioration in the elderly

Topics were influenced by sections in the Adult Medical Emergency Handbook i, The Oxford Handbook of Emergency Medicine and The Oxford Handbook for the Foundation Programme.

Results

Eight of the sessions have taken place with excellent feedback from the students. A variety of different teaching techniques have been employed, from didactic to simulated resuscitation on models. The average mark from the initial MCQ given to FY1 Doctors was only 65%, with poorer marks being recorded in radiology and neurological sections.

Conclusion

I believe this type of course should be made mandatory at the beginning of FY1 year to attempt to address the problems highlighted.

References

ii) http://www.scottishintensivecare.org.uk/education/medemer.pdf, Published by the University of Edinburgh. Edited by Dr Graham Nimmo. (Last accessed 28/01/2013.)
Investing in Leaders of the Future: The Yorkshire and The Humber Deanery “Fellows in Clinical Leadership” Programme

R Molyneux, M Macdonald, H Reynolds, F Chowdhury, K Forrest

R Molyneux, Clinical Leadership and Simulation Fellow, Yorkshire & Humber Deanery, Hull Institute of Learning and Simulation, Hull Royal Infirmary, Anlaby Road, Hull

Introduction
Many clinicians find themselves in leadership and management positions by chance. There are limited opportunities for personal development in leadership competencies particularly for trainees. The Medical Leadership Competency Framework (2010) recognized the need for focused development of leadership skills for doctors. Leadership development programmes have been shown to enhance leadership and management skills, enabling doctors to be involved in planning and delivery of projects aimed at improving patient safety. The Yorkshire and Humber Deanery have introduced a number of Management and Leadership Fellowships aimed at specialty trainees.

Aims
The aims of the post are to gain practical and academic competencies in medical leadership and education from local and national experts in the field. Each fellow has developed projects that are aimed at improving patient safety.

Qualifications
Our fellows are also funded to complete an academic qualification, consistent with the premise of their position. These range from Post-Graduate Certificates in medical education, medical leadership and management and are aimed at broadening the knowledge base of our future clinical leaders and educators.

Current Projects
Simulation, Education & E-learning: Yorkshire and the Humber deanery have invested heavily in simulation facilities and a number of fellows are integrating simulation into specialty curriculums; eg CMT, respiratory, cardiology, dermatology, surgery, obstetrics and gynaecology and anaesthetics. Other areas of development include human factors training.

Patient safety: In one Trust two fellows identified and rectified problems with delivery of a standardized approach to anaphylaxis. An ‘app’ is also being developed to give junior doctors’ access to local and national clinical guidelines important to delivering safe efficient practice.

Service Improvement: Several fellows have had the opportunity to be trained as micro-systems coaches by the Dartmouth Institute in New Hampshire.

The Y&H Leadership Fellows Network
Quarterly meetings have been established by the 35 fellows, providing a forum for collaboration on projects and opportunities to develop new ideas thereby encouraging open discussions about problems. These networking events are also an opportunity to learn about aspects of industry relevant to healthcare from experts in the field; eg risk management

Conclusion
These posts are widening the experience of current trainees in a range of hospital and deanery activities. In the aftermath of the Francis Report it is imperative for trainees to be in leadership roles, prior to becoming consultants. This will aid in facilitating clinically led services particularly aiming to promote service improvement and patient safety in our region.

References
Why do medical consultants become higher specialist trainers? A qualitative study of trainers' motivations

A Barrett, H Levy, G Walsh, A O'Shaughnessy

A Barrett, Royal College of Physicians of Ireland

Background

There is agreement that being a ‘good’ or ‘ideal’ clinical educator in part at least stems from the teacher’s own interest, enthusiasm and desire to teach (Jochemsen-van der Leeuw et al, 2013) which are factors associated with ‘intrinsic motivation’ (Ryan and Deci, 2000, Lochner et al, 2012). However, what motivates medical consultants to become higher specialist trainers has not yet been investigated. Consultants in Ireland become trainers on a voluntary basis; the aim of the research project was to inform our faculty development initiatives for this cohort who appear to assume these roles with few, if any, obvious incentives. The research question therefore, is why do medical consultants become higher specialist trainers?

Methods

A qualitative, interview-based methodology was employed. Medical consultants, who are registered as higher specialist trainers and have completed a course on ‘essential skills for consultant trainers’ were invited to participate. Interviews were transcribed and coded by two investigators. Thematic analysis is ongoing as transcripts are coded and analysed using a constant comparative method (Corbin and Strauss, 2008). Ethics approval was obtained from the Royal College of Physicians of Ireland Research Ethics Committee.

Results

Early indications are that medical consultants are motivated by many factors to undertake the role of higher specialist trainer; most trainers acknowledge the value provided by trainees to their service, with some trainers also referencing an interest in teaching, belief in the academic role of the medical consultant and that teaching at higher specialist level is a method of keeping their own skills at a high level.

Conclusion

Motivation to become a higher specialist trainer is multi-factorial; ‘securing’ a higher specialist trainee by becoming a trainer is a significant external motivator, and intrinsic motivation (desire to teach, interest in trainee development, perception of responsibility to the discipline) appears to be quite high among medical trainers. Lochner et al (2012) reported similar motivations among not only physicians but other health professionals also, indicating that teachers across all levels of health professions education may be motivated by similar factors.
Utilising the Academic Foundation Programme to promote medical education to junior doctors and medical students

J Read, N Cooper

J Read, CT1 Doctor, Core Medical Training. Derriford Hospital, Plymouth, PL6 8DH

Background and Purpose
The Academic Foundation Programme (AFP) caters for trainees who are interested in experiencing areas of medicine that are not traditionally covered by clinical training programmes. Medical education is one of the areas that is offered by the Peninsula Foundation School, providing protected time for both teaching and research within medical education and the opportunity to study for a Postgraduate Certificate in Clinical Education. The four foundation year two trainees in 2011/12 were involved in developing a clinical education conference for medical students and junior doctors to promote medical education and share best practice, in addition to demonstrating the outcomes of their foundation experience.

Methodology
The conference aimed to promote medical education and training to medical students and junior doctors through sharing experiences and by giving delegates the opportunity to present their work at a formal conference. The event aimed to demonstrate the importance of medical education through lectures, poster presentations and parallel sessions and give delegates the opportunity to share experiences and ideas with time to network, promoting greater collaboration at junior levels within medical education.

Results
Feedback from the conference was very positive with a large number of delegates expressing that they would be more likely to be involved in medical education in the future (89.2% via online feedback questionnaire). The quality of the work that was presented was also of an exceptionally high standard. Many delegates have started to develop new projects based on their experiences at the conference, some with colleagues that they met at the event.

Discussion and Conclusions
The Academic Foundation Programme is an excellent opportunity for junior medical education trainees to pursue projects that promote medical education to others. Encouraging these trainees to organise events to share best practice is an excellent opportunity for trainees to demonstrate and exhibit their work and also to encourage other potential educators to reach their potential. Encouraging more foundation trainees in academic programmes to consider developing events such as this could help to develop medical education, promote collaboration and increase the awareness of the importance of medical education amongst clinicians.

References
Medical Teaching Staff Use of Intended Learning Outcomes to Support Medical Student Learning

R I Norman, S Brooks, J Scott, M Rawlinson

R I Norman, Director of Medical Education Research and Development, Department of Medical and Social Care Education, University of Leicester. Leicester, United Kingdom

Background and Purpose
Intended learning outcomes (ILOs) are used to define the expected staged attainments of students within their medical training programme against the scope of the curriculum specifications\(^1\). The general assumption is that staff frame ILOs as a prerequisite to the design of the structure and content of courses and teaching elements but in practice the framing of ILOs is often constrained by the over-arching course or module framework and availability of time, teaching staff, students and teaching space. This study aims to identify the ways in which medical schools staff actually perceive and engage with the development and use of ILOs.

Methodology
Development and use of ILOs was investigated by questionnaire survey of academic staff involved in teaching medical students at the Leicester Medical School.

Results
Of 26 School of Medicine academic staff survey respondents, the majority agreed that ILOs were generally a useful learning aid (92%) and cover the range of subject material that may be assessed (81%). While many respondents agreed that ILOs specify the level of learning that is required for each topic area (69%), a third (35%) did not consider that ILOs specify the level of learning required to pass an assessment. Three quarters of respondents (77%) indicated that they considered ILOs to be useful for structuring module and programme design. Two thirds of respondents (62%) reported planning ILOs as a first step in teaching activity design, while most others (35%) reported that they fit ILOs to the required content. Three quarters of respondents (73%) reported using ILOs to frame the design of assessment. There was less agreement that ILOs are useful for determining the form of assessment (46%) and 42% of respondents reported concern that ILO may even restrict learning. Staff use of ILOs within a teaching session was varied. Forty six percent of staff referred to ILOs at the beginning of the session only, while 35% referred to them several times within a session. Two respondents (8%) referred to ILOs at the end of a session only and three respondents (12%) reported never referring to ILOs at all.

Conclusions
Staff report a variety of engagement in using defining and using ILOs. Not all staff use ILOs to structure the development of teaching activities or to guide teaching within teaching sessions. Additional training is required to ensure a more consistent use of ILOs by staff and specification of the level of learning expected.

References
An investigation of factors affecting the outcome of the Clinical Skills Assessment (CSA) in general practice specialty training

B Shaw, J Fox, J Brown, A Hart, J Mamelok

B Shaw, Honorary associate Dean, Mersey Deanery, Professor Evidence-based Practice Research Centre, Edge Hill University, United Kingdom

Background and purpose
Identifying General Practice trainees at risk of failing the CSA early in their training is important so that supportive measures can be put in place to improve their performance in the CSA and ensure training progression. It has been suggested that trainees most likely to fail include International Medical Graduates, those of Asian ethnicity, older males, those with significant periods of absence from the programme and those with a previous poor performance. The aim of this study was to determine whether other aspects of the trainee’s learning portfolio could be identified which might predict poor performance in the CSA.

Method
From the Mersey School of General Practice records, details were obtained for trainees who had completed their ST3 year between August 1st and December 31st 2012 as follows: Whether they had passed their CSA, their gender, university of qualification, years since qualification and if they had had any career breaks or maternity leave. For each of their ST1 and ST2 years, the numbers of Mini-CEX, CBD, DOPS, learning logs and PDPs that they had carried out and whether they had entered a new PDP every six months as well as the length of time taken before they recorded their first five learning logs in the ST1 year were recorded. Logistic regression was used to test possible associations between predictors and the outcome of a CSA pass. Univariate analyses were used for each individual variable, where appropriate, and the predictors with p<0.10 were then entered into a backward elimination procedure.

Results
Records were obtained for 116 trainees 94 of whom had passed their CSA. University of qualification, gender, years since qualification, ST1 number of CBD and ST1 number of DOPS were significantly associated with CSA pass and entered into the multivariate model. This indicated that graduation from a European university and being female were both associated with an increased chance of passing. Years since qualification and location of university of qualification were strongly associated. ST1 number of CBD tended to be lower for graduates from European universities as did ST1 number of DOPS.

Discussion
Years since qualification, non-European university qualification and male gender are the strongest predictors of failing the CSA. Portfolio activity is NOT a predictor of outcome – indeed non-European university doctors do more CBD and DOPS in first year. The quality of these workplace based assessments in those failing the CSA require further study.

Reference
Woolf K, Potts HW, McManus IC. Ethnicity and academic performance in UK trained doctors and medical students: systematic review and meta-analysis. BMJ. 2011 Mar 8;342
Background and Purpose
Feedback is perceived by both learners and educators as valuable for learning. However, there is a disparity in learners' and educators' perceptions of effective feedback in both academic and clinical settings. End of module evaluations in the distance learning Master of Medical Education programme indicated that students were dissatisfied with the inconsistency in quantity and quality of feedback received on their work. This study aimed to analyse the quantity and nature of feedback (focus, level and depth) provided to students by tutors on the course and to explore the extent of discrepancy in practices among tutors.

Methodology
We undertook a retrospective feedback audit of a randomly selected 5% sample of all marked assignments submitted in 2011 (n=140). We developed the audit coding framework a-priori based on the Feedback Analysis Chart for Tutors (FACT) (identifying depth of feedback) and Hattie and Timperley’s model of feedback. Two researchers (RA and KB) independently coded a selection of feedback given on assignments from our sample using the audit coding framework. The researchers met regularly to negotiate any discrepancy in coding of feedback comments. This qualitative approach enabled a consensus to be reached on the meaning of the codes and the coded comments. KB coded the remainder of the sample with further discussion and negotiation of ambiguous comments.

Results
95% of feedback provided was directly related to the content of the assignment (rather than e.g. academic writing or referencing), and 72% was focussed on the specific task. Overall the amount of positive and negative comments was balanced (51% vs. 49%). 90% of future oriented comments were provided in response to perceived weaknesses in students’ assignments. Diagrams were generated from the data to profile individual tutor practices of giving feedback.

Discussion and Conclusions
The feedback audit confirmed a large discrepancy in the quantity and nature of feedback provided to students by tutors. Audit findings were valuable in informing faculty development about feedback where tutors could reflect on different feedback profiles (including their own) and discuss implications for student learning. The audit will be repeated on an annual basis to measure changes in quantity and nature of feedback, triangulated with student evaluations, as we re-engineer assessment and feedback practices across the entire programme. The audit is the first step towards narrowing the gap between students’ and tutors’ perceptions of feedback in our postgraduate medical education programme.

Funding: this work is part of a larger project funded by a JISC (Joint Information Systems Committee) grant (£125K: 2011-14).

References
The impact of formative versus summative progress testing on students

E Haines, R Jayasundera, N Toms, L Coombes, T Collett, P Gunasekera

E Haines and R Jayasundera, Students, Plymouth University Peninsula School of Medicine and Dentistry, Plymouth, Devon, UK

Background and Purpose
The importance of assessments in fostering deep and strategic learning, is widely recognised (Entwhistle, 2000). Plymouth University Peninsula School of Medicine and Dentistry (PU-PSMD) has acknowledged this in developing progress tests, applied four times a year. While both medical and dental tests are based on the multiple choice format and have an applied clinical focus, the medical test (Applied Medical Knowledge – AMK) contributes to summative assessment throughout all years of study. In contrast the dental version (Applied Dental Knowledge – ADK) is formative for the first two years. Anecdote suggests that this contributes to a difference in how these tests are valued by the respective students groups.

Methods
The ‘Formative And Summative Testing Evaluation’ (FASTE) has been designed to explore any perceptual differences between the students sitting the AMK and ADK respectively. All medical and dental students who enrolled to the Plymouth locality in September 2012 will form the study population. The bespoke questionnaire tool, which includes validated scales such as Test Anxiety Index (Hodapp, 1996) and a modified version of the Job Characteristics Questionnaire, will be applied immediately after the AMK/ADK tests, with an anticipated response rate of 60% (102 students).

Findings and discussion
Our discussion will focus on the initial findings of FASTE with particular emphasis on comparing the preparation, attitudes, expectations, anxiety and stress levels among the two cohorts of students. In particular we will consider the implications of our findings for deep-strategic learning.

References
Medical students’ perceptions of formative assessment

K Murray

K Murray, Medical Student intercalating in “Teaching in Medicine,” School of Medicine, University of Dundee, UK

Background and purpose
There is existing evidence which demonstrates that medical students highly regard formative assessment opportunities and, also, that participation and performance in formative assessment has a positive impact on the summative examination results of medical students 1, 2, 3, 4. However, there appears to be a lack of qualitative research exploring if, and why, students find formative assessment useful. This study aims to fill this gap and provide medical educators with an understanding of the value of formative assessment from the students’ perspective and if it should be an essential element of every medical curriculum.

The “Assessment in Undergraduate Medical Education” guideline from the General Medical Council suggests that formative assessment should be:

“informal, frequent, dynamic and non-judgemental... It should be built into the design of all teaching modules” 5.

Formative assessment gives students an opportunity to learn, reflect on the gaps in their knowledge identified by the feedback provided and devise a plan to study more efficiently 5.

Methodology
This research project uses the case study method. Data is being gathered using semi-structured interviews and collected via audio recordings which are later transcribed. Thematic analysis will be employed to determine if there are any recurring themes between participants and what these themes are.

The population studied includes University of Dundee medical students. Due to the qualitative nature of this study, the number of participants is not critical to the quality of the data gathered. The sample size will be large enough to reach theoretical saturation - “where new data no longer add to the... themes, or their elements” 6 – but not so large as to encounter data overload.

Results
As this study is ongoing, the results are not yet available. The results, conclusion and recommendations will be available at the time of the conference in July.

References
Medical Students’ Perceptions of the Fairness of the Clinical Encounter Assessment Grading Process

S Main

S Main, F2 Doctor, Royal Victoria Infirmary, Newcastle upon Tyne

Background and Purpose
The GMC stated in Tomorrow’s Doctors in 2009 that medical students should be able to contribute to the quality of their education through evaluation 1. The perceptions of medical students are therefore essential to gather in order to allow the students to contribute and evaluate their own education. The phenomenon under study is the perception of students of the fairness of the grading process of their end of rotation summative assessments. Only through speaking with students will this phenomenon be able to be captured.

Methodology
This project is an evaluation to investigate to what extent Stage 3 medical students think the grading process of the clinical assessments is fair. The second aim is to explore and gain insight into the factors that influence the perception of fairness. An email was sent to all 335 Stage 3 MBBS students at Newcastle University directing them to a questionnaire on the University’s Learning Support Environment (LSE). Students could then volunteer to participate in a semi-structured interview to further explore their views. Six students were purposively sampled and interviewed. Questionnaire data was analysed quantitatively in the form of descriptive statistics. Interviews were transcribed and thematically analysed according to patterns in the data.

Results
Two thirds of Stage 3 MBBS students at Newcastle University perceive the end of rotation summative assessment grading process to be unfair. Various factors were explored, although a main point of discussion was over the fairness of examiners and the perceived lack of training. There is a mixed result as to whether students believe the clinical encounter form to be a valuable tool in promoting fair assessments, with comments that the domains are useful, but that changes should be made to the grades and feedback.

Discussion and Conclusions
Further research needs to investigate students’ perceptions of fairness in later stages of their course and views of other stakeholders. Stage 3 students should also be asked about the fairness of other assessment methods. A specific recommendation to improve the programme for future cohorts is that all examiners should be trained in how to assess students.

References
Competency in Core UK General Medical Council Clinical Skills: Impact of T Docs Additional Clinical Practice post Finals

V Patel, A Kumar

V Patel, Department of Medical Education, Warwick Medical School, The University of Warwick, Coventry, UK; CV4 7AL and George Eliot Diabetes Centre, George Eliot Hospital NHS Trust, Nuneaton, UK

Background
Tomorrow’s Doctors (2009) stated that all curricula should ‘include at least one student assistantship period’ 1. Supplementary advice stated that such a placement should ‘allow the medical student to gain experience of working within clinical settings and practise clinical skills’ 2. It also said that medical schools ‘should evaluate the effectiveness of their student assistantships…whether it provides hands-on experience and contributes to their students’ preparedness for practice’ 3. Professor Sir Bruce Keogh, wrote to final year medical students stipulating that they will shadow their first F1 job, to ‘equip them with the local knowledge and skills to provide safe, high quality patient care’ 4.

The study focused on the effectiveness of the student assistantship (additional clinical practice referred to as “T Docs”) conducted by final year students at Warwick Medical School following finals. A previous study conducted had shown that giving people a clear clinical skills framework through the provision of a handheld clinical skills logbook may have helped with the engagement of the students with the assistantship. This study aimed to evaluate student perception of skills competency immediately after finals and after compulsory additional clinical practice (ACP), and compare results between the second and third cohort.

Methods
A competency questionnaire was distributed to the second and third cohorts entering finals. Students completed the questionnaire before and after ACP. The second cohort (n=120) received a clinical skills logbook immediately after their final examination, prior to attending ACP. The third cohort (n=162) received this logbook at the start of their final year. Competencies for 17 skills were self-assessed on a 4 point scale. All data was collected anonymously without any potential adverse outcome for the student. Data was analyzed using Chi-test.

Results
Giving a clinical skills logbook at the start of the final year, rather than after finals resulted in a significantly improved baseline competency (prior to ACP) in five clinical skills (p<0.05). The earlier provision of the clinical skills logbook also caused a significant improvement in competency following ACP for two skills (p<0.05).

Discussion
The data gathered from the second and third cohorts seems to suggest that the earlier logbook provision improved the students’ clinical skills competencies. Furthermore, the GMC team that visited Warwick Medical School in 2006 commended the ACP course, stating that the logbooks were ‘a focused reminder of the specific requirements of Tomorrow’s Doctors to help them (final year students) record completion of specific tasks’ 5.

References:
5. GMC. Undergraduate Board. 2006. QABME: the School of Medicine, University of Warwick Report for 2005/06. Chapter 98. GMC.
Undergraduate
A review of support available to students with Dyslexia within Dundee Medical School

K M H Sneddon

K M H Sneddon, Medical Student, University of Dundee, Scotland, UK

Background & Purpose
This study looks to assess current academic support available to students with Dyslexia within the Dundee Medical School. It will then endeavour to consider reasonable adjustments to academic support provided by the Dundee Medical School.

The cause of Dyslexia has not been definitively defined due to the complex and varied nature of the condition. Commonly, some students with Dyslexia struggle with academia as they have poor reading skills, and have a difficulty learning information. Despite a high intelligence, these qualities can hinder studying in higher education.

A medical degree can be a very demanding university course as it is often fast paced, and requires a great deal of background reading and self-directed learning. Therefore, it no surprise that students with Dyslexia can struggle with the course, especially if there is little support for individuals with a learning disability.

Recent research has shown that, although students with Dyslexia can succeed academically and in the medical profession, literature suggests that appropriate and direct academic support can aid such success.1,2,3.

Methodology
Through a case-study based design, semi-structured interviews and thematic analysis, this study aims to review the current feelings of students with Dyslexia and support they currently receive in the Dundee Medical course. The research aims to elicit views of faculty members in terms of their experience in teaching students with Dyslexia, and any additional support they receive for this. The study also aims to identify other supportive methods that would benefit both students with Dyslexia and those teaching such students.

Results
Results from the study will be analysed to suggest measures to ensure an adequate network of support for students with Dyslexia. It is hoped the findings of this study will inform practice within Dundee Medical School.

Dundee Medical School uses a variety of teaching methods, similar to those used in other medical schools; therefore conclusions from this study may also be transferable to other medical courses.4

Discussion and Conclusions
From the results, the study intends to determine if a gap exists between the current supportive measures, those wanted by staff and students and those recommended by policy and the literature. Additionally, current support and measures will be reviewed to ensure current practice is in keeping with legal regulations.5,6

References:
1. MacDougall M. 2009. Dyscalculia, Dyslexia and Medical Students’ Needs for Learning and Using Statistics. Medical Education: 14
Shush – I am counting! The impact of distraction on medical students’ ability to perform drug dose calculations

GJ Gormley, A Leersson, J Wylie

GJ Gormley, Senior Clinical Academic General Practitioner, Centre for Medical Education, Queen’s University Belfast (QUB), Northern Ireland

Background and Purpose
Accurate prescribing is a fundamental skill for clinical doctors. However, medication errors are recognised as a common cause of adverse drug events of patient morbidity and mortality. Errors in drug-dose calculations are one of the many steps that can contribute to such adverse drug events occurring. Doctors are often interrupted during the course of their clinical activities and it is likely that such distractions contribute to medication errors. However the impact of distraction on an individual’s ability to perform drug related calculations has never been formally tested. The multicomponent theory of working memory would suggest that is has a limited capacity and performance in a primary cognitive tasks can be affected by secondary cognitive tasks (such as distraction). This study aims to assess the impact of cognitive distraction on medical students drug calculation abilities.

Methodology
Medical students were randomised into either an intervention (distraction) or control group. Participant’s base line numeracy ability was measured using a validated numeracy test. Both groups were then asked to perform a series of drug-related calculations. However in the intervention group a series of ‘clinical statements’ were read out and participants had to remember these statements whilst performing the calculations. The control group performed the same drug calculations but in a quiet environment. Correlations investigated the relationship between scores on the drug calculation test and their baseline numeracy ability. Analysis of variance was used to examine differences in the drug calculation scores between groups.

Results
Participants who were distracted had a significantly lower score in the drug calculation test (P<0.005). Objectively measuring participant’s numeracy ability correlated with their performance in the drug calculation test for both the distraction (P<0.01) and control groups (P=0.001).

Discussion and Conclusions
Competent prescribing is a complex contextual skill. Multifaceted approaches are required in order to reduce adverse drug events occurring. From an educational perspective, a greater emphasis is required in linking theory and application of knowledge in clinical practice. Non-technical issues, such as distraction, have the potential to impair an individual’s ability to accurately and safely prescribe. Training, starting at an undergraduate level, needs to make students mindful of the potential impact such distractions may have on their ability to prescribe safely.

References
The 12 Lead ECG: A novel approach
B Porter, B Hole

B Porter, Medical Student, The University of Bristol

Background and Purpose
Electrocardiogram (ECG) interpretation skills of graduating doctors are sub-optimal.¹ We believe this is in part due to a lack of consideration given to the teaching methodology used at undergraduate level. Our aim is to advocate the use of graphically organised methods of teaching interpretation of the twelve-lead electrocardiogram.

ECG interpretation is considered an essential competence for medical graduates by the GMC.² In spite of this, and the large number of resources available on ECG instruction, there is a lack of evidence to support any one method in teaching ECG interpretation.³

A standard ECG trace is a graphic organiser, containing spatial information relating to cardiac anatomy and function that is not immediately apparent to learners. We are trialling the use of kinaesthetic methods to illuminate this hidden information, and to provide a guide to interpretation.

Methodology
Standard 12-Lead ECGs representing both normality and disease states have been scanned and coded using presentation software to permit zoom-navigation of sub-components of the trace. Navigation of these images can be by an instructor, or by an individual. So far we have coded a library of over 100 ECGs and intend to make this library freely available.

Discussions and Conclusions
We shall present our early experience of using this resource to support learning of ECG interpretation. Furthermore, we hope to demonstrate how new technology can stimulate re-evaluation of suboptimal teaching methodology.

References
² General Medical Council. Tomorrow’s Doctors. 2009: p.78
Accessed at; www.gmc-uk.org/static/documents/.../GMCTD091.11.11.pdf
Lapses in Professionalism: Support and Progress. Measuring lapses and promoting a professional culture amongst medical students

F Muir, C Ballantyne, C McNeice, G Mires

F Muir, Senior Lecturer, Undergraduate Tayside Centre for General Practice, Medical Education Institute, School of Medicine, University of Dundee, Dundee

Background and Purpose
Professional behaviour is considered essential to the practice of medicine. The School of Medicine takes a holistic view of students' professionalism. Measuring professionalism starts at the admissions process and continues throughout the programme to ensure students are fit to practise when they graduate.

Whilst poor performance in the undergraduate years may lead to referral to the Professional Behaviour Committee, a lack of professionalism is a significant risk factor for other poor performance and disciplinary action in later clinical practice1

In September 2012 as part of a school initiative to heighten the importance of professional behaviour, a recording and monitoring system to support the identification of students who demonstrate a ‘lack of professionalism,’ was implemented. The system records penalty points when there is a lapse; identifies individual occurrences which may not be captured by existing assessment processes; provides a longitudinal tracking system identifying students who receive multiple records and intervention; affords an opportunity to support students with professionalism inadequacies.

Discussion
A description of the way in which this innovation was conceived with individuals from within the Schools of Medicine, Nursing and Dentistry, the way in which the Medical School has developed and implemented the process and an exploration of the way in which professionalism can be supported, will be considered.

There will be an opportunity to look at the resources and strategies used in the project.

Reference
Online case discussions on Global Health in an intercalated BMSc

N Merrylees, J Davis, O McIntosh

N Merrylees, Clinical Teacher, Tayside Centre for General Practice, Medical Education Institute, University of Dundee, Scotland

**Background and Purpose**

A one year intercalated BMSc degree in International Health is now in its third year with eight students on the course. In order to allow students to put their skills into practice in a different context and to learn more about some important areas of Global Health not covered in the face to face teaching, online cases were developed. These take the form of ten ‘cases of the week’ using the Wordpress course website which allows comments to be added. Each case focuses on either a clinical scenario or a socio-political situation using trigger materials. The students post comments on all aspects of the scenario from clinical to economic and political and hence apply knowledge and extend their reading about Global Health issues. This year a small group of intercalating students from Birmingham Medical School were included.

**Methodology**

The discussions were moderated by a member of the academic team. The value of the process was assessed by feedback from the students and also objectively by the level of engagement and depth of contributions. Feedback from supervisors was gathered informally.

**Results**

The cases proved popular with the students and engagement has been positive. The experience of using this teaching for the past three years will be presented including the effect of extending the group to include students from Birmingham.

**Discussion and Conclusions**

Staff workload for has to be taken into account. Experience has shown that it is vital to check the discussion regularly however it is also important to establish student to student dialogue and avoid a question and answer situation developing with the tutor.

Expansion of numbers by including another group from another university in the same discussions did not appear to work as well as had been hoped. Birmingham student input declined probably due to exam pressure and preparations for travel to overseas research projects. Feedback from students suggested the expansion diluted the experience and an optimum group size for this sort of exercise would appear to be around six to eight, though more work would be needed to confirm this. So far the discussion has not been part of the formal assessment; however this is something that may be considered in the future.
Graduate-entry medicine students’ perception and attitudes towards health advice requests from family and friends

S Tso, E Kirk, A Yousuf, N Owen, M Smith, J Kidd

S Tso, NIHR Academic Clinical Fellow Medical Education and Associate Clinical Teacher, Warwick Medical School, United Kingdom

Background and Purpose
There is clear ethical and professional guidance from the GMC and BMA on how doctors should handle medical advice requests from family and friends. Medical students confront similar situations but they are not taught how to handle these requests in the formal curriculum. This project explores graduate-entry medicine students’ perception and attitudes towards health advice requests from family and friends.

Methodology
This project is part of a larger on-going study exploring how graduate-entry medicine students from the Warwick 4-year MB ChB programme experience transition through medical school training. Ethical approval has been obtained. A convenience sample of 7 students were asked about their experiences of handling health advice requests from family and friends. Audio recordings of the interviews were analysed by constant comparison.

Results
The emerging themes include: 1) The nature of the health advice requests; 2) Motivation and expectations; 3) Situational judgment; and 4) Responses and outcomes.

Discussion and Conclusions
Participants found themselves being put in a position of power and trust in the absence of expertise or competence, which was particularly worrying for them when handling health advice requests from family and friends. They have encountered a wide range of requests ranging to from individuals’ acute and chronic health problems to veterinary conditions during medical school training or their previous healthcare employment. Participants have good awareness of their own limitations. Their responses to health advice requests are context dependent, but they usually address these requests by acknowledging their lack of knowledge and competency, refraining from providing actual medical advice and encouraging the individual to seek help from trained doctors. However, they are readily prepared to act as health advocates providing health information and timely support to these individuals. There have been instances such as simple first aid scenarios where participants were prepared to give actual health advice, as they perceived themselves as competent and experienced in dealing with these everyday scenarios. None of the participants featured in our project have reported actions that could have put others at risk of harm.

Dealing with these health advice requests can be very challenging. Family and friends should be made aware of the difficulties and dilemmas they imposed on medical students with their health advice requests. Encouraging students to consider the ethical and professional aspect of giving health advice to family and friends during the early stages of medical school training will prepare them for this inevitable challenge.
Exploring What Factors Influence Medical Students' Choice of Student Selected Component (SSC)

L Sayed, E Hayward, D Hudman, A Stanley

L Sayed, Medical Educator, Leicester Medical school, Leicester, UK and FY2 Emergency Medicine, Leicester Royal Infirmary, Leicester, UK

Background and Purpose
The enrolment of student selected components (SSCs) within undergraduate medical education is a relatively novel addition to the curriculum. The 2009 GMC guidance on ‘Tomorrow’s Doctors’ stated that SSCs should encompass an integral and significant part of the curriculum[1]. UK medical schools now incorporate a variety of SSCs ranging from basic sciences and research, to languages, history and the arts. Anecdotal evidence suggests that students might choose a science-orientated SSC in the belief that this would be more beneficial when applying for future jobs. However, the factors that influence medical students’ decisions when choosing an SSC are largely unknown. This study aims to explore these factors.

Methodology
Three focus groups were carried out containing between 6-10 pre-clinical third year medical students from Leicester Medical School. One group contained students from a science-orientated SSC; the second, students from a humanities-based SSC and the third, students from an arts-related SSC. An online questionnaire was constructed based on the themes revealed in the focus groups. The questionnaire was sent to all pre-clinical third year students via email asking them rate how much each factor listed influenced their decision making when choosing a SSC; there was also opportunity for them to add any factors not listed in the questionnaire. As a further point of interest, a comparison of results will be made to see if those that were allocated their first or second choice SSC performed better than those that were allocated their third of fourth choice.

Results
The main themes from the focus groups revealed that students made SSC choices based on interest, workload and that the SSC would complement current core modules. The data collated from the questionnaire and SSC results will also be analysed and presented at the meeting.

Discussion and Conclusion
It has been recognised that the incorporation of SSCs allows medical students the opportunity to explore areas of medicine in more detail or areas of medicine not covered within the core curriculum. Others have suggested that humanities or arts related SSCs provides students with a better understanding of a patient’s experiences and perspectives and will thus instil better communication skills and doctor-patient relations in the future[3,4]. Exploring the factors which influence medical students choice of SSC are important to ensure that students are not ruling out potentially interesting non-science based SSCs in the false belief that it may be detrimental to them later in their career.

References
Disabled Medical Students: A Consideration of Barriers Experienced During Transition from Pre-Clinical to Clinical Years

A Yousuf, N Owen, S Tso, J Kidd

A Yousuf, 3rd Year Medical Student, Warwick Medical School, Coventry, United Kingdom

Background and Purpose
In 2006, the BMA annual representative meeting looked into disability equality in the medical professions and came to the following resolutions1: 1) Individuals with disabilities must have appropriate access to medical education; 2) Doctors with disabilities must be enabled to have fulfilling and rewarding medical careers. This project explores the barriers to a fulfilling and rewarding medical school training for disabled graduate-entry medical students and the impact their disability has on professional identity development. The study findings will enrich our understanding of this underexplored area and strengthen existing student support systems.

Methodology
This project, conducted at Warwick Medical School, is part of a larger study exploring student experiences of transitions during preclinical to clinical years. Two of the six members of the research team have a disability. Ethics approval has been received. A convenience sample of six medical students with disabilities will be interviewed to explore the barriers and challenges to their medical school training, their perception of how other people view their disability, and their willingness to disclose their disability to others during medical school training. Audio recording of the interviews will be transcribed verbatim and analysed using thematic analysis.

Results
Two students with disabilities have been interviewed. Additional interviews will be conducted until saturation of data. Emerging themes from the interviews will be presented at the ASME Annual Scientific Meeting alongside four broad groups of disabilities (physical, sensory, learning difficulty and chronic illness).

Discussion and Conclusions
While a disability is usually identified prior to entry into tertiary education, a minority of individuals have a disability identified at this stage. Students with disabilities have devised coping strategies that facilitate them to cope with the every day challenges of their medical degree, minimise the impact of their disability on their medical school activities and avoid potentially challenging situations from occurring. The challenges they face can be categorised under 1) academic, 2) social, and 3) financial issues. However, these coping mechanisms can get overwhelmed and additional help is required. Government, institutional and peer support for disabled students exists but access to these services varies depending on awareness and individual circumstances. Being proactive and informing faculty members about a disability, provides enhanced learning opportunities that will meet an individual’s unique learning needs.

References
1. BMA Equal Opportunities Committee. Disability Equality in the Medical Profession. 2007 London, BMA
Realising the potential for an Olympic legacy; teaching medical students about Sport and Exercise Medicine and exercise prescribing

A Wylie, P R Jones, J H M Brooks, C Rufford

A Wylie, Deputy Director of Community Education, Department of Primary Care and Public Health Sciences, King’s College London School of Medicine, London, UK

Background and Purpose
Physicians are increasingly being called upon to promote physical activity (PA) to their patients \(^1\). However, a paucity of exercise medicine teaching in UK undergraduate medical curricula prevents students from acquiring the necessary knowledge and skills to do so \(^2\). King’s College London School of Medicine (KCLSoM) recently introduced an exercise medicine strand of teaching for the 1\(^{st}\), 2\(^{nd}\) and 3\(^{rd}\) year students to address this. There are plans for the programme to be further developed in the final years. This study evaluated the feasibility and acceptability of exercise promotion behaviour change teaching and explored the knowledge and attitudes of the students who received it.

Methodology
Students were invited to complete a confidential 6-item online questionnaire prior to and after exercise medicine teaching. The questionnaire assessed beliefs regarding the importance of PA in disease prevention and management, in addition to their confidence in advising patients on PA recommendations. A focus group of 7 participants explored students’ attitudes towards and knowledge of PA promotion and exercise prescribing.

Results
261 of 799 (33%) first and second year MBBS students completed the questionnaire. Students’ beliefs regarding the importance of PA in managing disease and their confidence in PA promotion to patients increased after the teaching \((p<0.001)\). More students were able to correctly identify the Chief Medical Officer recommended adult PA guidelines \((p<0.05)\). Students were enthusiastic about the exercise medicine teaching received, strongly supportive of its continued inclusion in the KCLSoM curriculum and passionate about its importance for their patients and themselves as future doctors.

Discussion and Conclusions
Behaviour change teaching successfully improved students’ knowledge of and confidence regarding PA promotion. These improvements may increase rates and success of physician PA counselling and skills in exercise prescribing in the future. However, challenges such as tutor skill and knowledge base must be identified and addressed if these recent developments are to endure long-term.

References
Developing self study materials on imaging in obstetrics and gynaecology for medical students by medical students

R Eames, M Masiello, K Jones, N Ridley

R Eames, Medical Student, University of Bristol Academy, Great Western Hospital, Swindon, UK

Background and purpose
Ultrasound scanning is recommended as the first line investigation in many of the guidelines concerning the investigation of gynaecological problems; it is a widely used imaging method in this specialty, but an area that medical students have little experience in. I undertook a project as a 4th year medical student to create a learning package for colleagues to have access to at the beginning of their attachment in obstetrics and gynaecology to aid their understanding and interpretation of imaging with a particular focus on ultrasound. In order to do so I gained an understanding of ultrasound imaging, education theory and design. It is a requirement in good medical practice that doctors should be involved in teaching and this provided me an opportunity to gain experience as a student.

Methodology
There are two stages to this project; creation and implementation. Initially I had to gain a more in-depth understanding of ultrasound imaging, education theory and presentation design. The knowledge of ultrasound was gained by learning about the physics behind ultrasound as well as scanning technique through reading and observation in clinic. I created a learning resource in the form of a 30 minute power point tutorial that auto-ran with a simultaneous audio recording. The second stage is to deliver this presentation to students at the beginning of their obstetrics and gynaecology course and to collect their feedback via questionnaires.

Results
The first part of my project resulted in the creation of the tutorial. Results of feedback questionnaires to follow.

Discussion and Conclusions
During the process of creating this resource for my peers I was able to gain additional knowledge in the area of ultrasound imaging and the creation of teaching materials. It was created to address the students’ learning needs in the topic of imaging in Obstetrics and Gynaecology and the automated delivery system could be a standardised way of delivering teaching across a number of hospitals in the area. This material will hopefully be delivered in the future as part of a wider package including video presentations.

References
“Lived-through learning”: Phenomenological elicitation pedagogies in medical students’ simulation learning

GJ Gormley, J Skinner, C Huang, K Kanter, K Samuels, J Rocha, D Medeossi, W Wu

GJ Gormley, Senior Clinical Academic General Practitioner, Centre for Medical Education, Queen’s University Belfast (QUB), Northern Ireland

Background and Purpose
Task-based simulated learning is known to foster active, assisted and autonomous learning, and a high level of commitment and enthusiasm in students. With embodied and phenomenological dimensions to student learning, students have the opportunity to practice key skills in challenging but supportive environments.

Methodology
Headcams were used to develop elicitation interviews between 14 medical students undergoing ward simulations, and 7 graduate level anthropology students undergoing research methods interview training. Medical students were encouraged to narrate their experiences whilst viewing their headcam recordings. This elicitation interview technique improves upon post-rationalised interviews that typically rely upon memory.

Results
Simulation-style learning explored with a new technological base resulted in perceptibly high levels of student immersion and involvement, student confidence and competence, and produced insightful reflexive accounts of this active learning encounter.

Discussion and Conclusions
The use of headcams in simulation-based learning allows for deeply reflexive and flexible learning. They enhance and highlight practice-based pedagogies, particularly when used to elicit the lived-through experience. This simulation-style and technological-base has wide application to other HEIs, clinical settings, and apprenticeship learning environments.

References
An audit of student confidence in undergraduate ophthalmology following the addition of a supplementary handbook

Z Lin, M El-Abiary, J Cherry, P Hodgkins

Z Lin, Foundation Doctor, Endocrine and Diabetes Department, Salisbury NHS Foundation Trust, Salisbury, United Kingdom

Background and Purpose
Ophthalmology placements in medical schools are generally of short duration. We aimed to improve learning by developing a handbook to supplement the clinical placement at Southampton Medical School. Our concise book covers the level of knowledge and practical skills medical students are expected to achieve, with guidance from the Undergraduate Ophthalmology Lead Consultant. It is intended as a free, non-exhaustive resource with focus on the most salient points, written by newly-qualified doctors that have recently completed this week-long placement. As far as we are aware, this is the first project of its kind. This study aims to quantify change in student confidence in ophthalmology after the introduction of our supplementary handbook.

Methodology
We used a short questionnaire to assess the confidence in ophthalmology of the first cohort of students after their placement. The questionnaire was based on subjective confidence in both knowledge and practical skills, rated on a scale of 1 to 5, with 1 being ‘not confident’ and 5 as ‘very confident’. The second cohort underwent the same protocol but with the addition of our handbook at the beginning of their placement. This second cohort was asked an additional question of whether the handbook contributed to their learning. These two cohorts comprised of the 4th year group of the 5-year BM5 course, along with the 2nd year of the 4-year graduate-entry BM4 course.

Results
Results from the two cohorts will be compared for each question. These will be presented along with results of the additional question for the second cohort. Preliminary analysis suggests a general rise in confidence after the introduction of the handbook in all aspects questioned.

Discussion
Southampton medical students have more confidence in essential areas of ophthalmology after their placement when supplemented with our handbook. There is a greater confidence increase in knowledge than in practical skills. Students also strongly agree that the handbook contributed to their learning. As a currently free resource, we hope the handbook will be carried by students into their careers. We will continue to improve it based on feedback, with the ultimate aim of introducing our handbook to other medical schools.
Students’ perceptions of professional identity and attitudes towards interprofessional learning

J Breen, F Muir

J Breen, Undergraduate Teaching in Medicine BMSc Student, University of Dundee, Dundee, UK

Background and Purpose
Developing professional identity involves the establishment of the core values, moral principles, and self-awareness associated with that profession\(^1\). Whilst there is a growing resource of literature on the subject of professional identity formation, it would appear few studies have discussed the interplay between professional identity development and engagement in interprofessional learning (IPL)\(^2\). This study aims to explore how students view both their own profession and other healthcare professions. Additionally it aims to aid understanding of attitudes towards interprofessional learning at the University of Dundee. It is hoped by understanding how students perceive professional identity and their attitudes towards IPL the results of this study can be used to inform future IPL design at the university.

Methodology
A Case Study methodology will be followed. An existing interprofessional learning opportunity at the University of Dundee is a four week Student Selected Component (SSC) which involves medical, nursing and dental students. Data will be collected from students on the SSC via uni-professional focus groups. The aim of the focus groups is to elicit student opinions on professional identity, the role of professions within the healthcare team, to see if professional identity is affected by exposure to IPL and to establish what, if any barriers exist between students of the different professions and whether exposure to the health professional groups helps break those barriers down. A process of inductive thematic analysis will be used to inform the results of the study.

Results
Results of the focus groups will be presented.

Discussion and Conclusions
The small number of studies which have explored the interaction between professional identity and IPL have concluded that early exposure to interprofessional learning environments has a strong impact on attitudes and professional identity\(^3\)\(^4\). Additionally students that enter into interprofessional learning with a negative attitude, an unrewarding experience can reinforce those beliefs. It is therefore vitally important to deliver interprofessional learning opportunities as early and as effectively as possible. This study hopes that by exploring student perceptions of professional identity and attitudes towards Interprofessional Learning the design of future IPL opportunities can maximised.

References
Student-Led Excellent Teacher Awards: A Pilot Project

NTM Huneke, E Vaccari, M Leach, S Javed

NTM Huneke, Final Year Medical Student, Manchester

Background and Purpose
For many years, outstanding teaching practice at Manchester Medical School has gone unrewarded. Our aim was to improve the quality of undergraduate education for medical students by recognising and rewarding outstanding teaching practice.

Methodology
This pilot project was conducted in May-July 2011. Awards were given in three categories: Best teacher in Phase 1 (Years 1 and 2), Best teacher in Year 3, and Best teacher in Year 4.

Nominations: Students were asked to nominate anyone who had taught them in the last year, particularly describing what this teacher does differently from other teachers, and why this is outstanding practice. Nominations were e-mailed by students to their Programme Representatives.

Judging: The nominations were judged by a focus group of 10 Student Representatives from various years and sectors. To remove any potential bias, nominations were made anonymous and edited into a list of traits by the Programme Representatives. Through a verbal discussion, the judges selected the top three nominations in each category that they felt demonstrated practice that should be publicised to improve the standard of teaching. A subsequent secret ballot for each category chose the winner.

Dissemination of results: All nominees received a letter of thanks, including a summary of the reasons for their nomination. The winners were also notified by letter, and were invited to a ‘Celebration of Achievement Evening’. The teaching practice of the winners were publicised through various channels, including posters in the sectors, a blog post on the medical school website, and articles in the student and medical education newsletters.

Results
Practices that students felt were outstanding included: helping to shape the student as well as imparting knowledge; creating a non-judgemental environment in which students could ask questions, and question themselves; and going above and beyond the call of duty to help students, such as organising a mock assessment.

Discussion
The awards generated excitement among teaching staff. Feedback from the students judging the nominations included: the scheme gave students a great way to give something back to excellent teachers; it was useful to discuss teaching methods; the awards should continue. The judges felt that improvements for next year could be made including: more guidance for judging nominees; a standard nomination form; more categories to reward more teachers; and increased time for students to submit nominations. The awards have since continued with more categories and winners, increasing motivation among teachers to teach well.
New Technologies & Curriculum Planning
The Positive Effect of a Peer Led Web-Based Learning Resource on Post-Graduate Surgical Teaching in a District General Hospital

R Bamford, L Cochran, M Halls, M Williamson

R Bamford, General Surgical Registrar, Royal United Hospital Bath NHS Trust

Background and purpose
Web-based learning resources are becoming an increasingly integral part of medical education while peer led teaching is also considered a useful teaching tool. This study aims to demonstrate the effect of combining these approaches to medical education.

Method
Junior doctors were invited to join and use a newly developed peer designed web-based learning resource. Two months after the introduction of the website the same juniors were asked to complete questionnaires to evaluate its use and effectiveness in aiding and improving surgical education at the institution.

Results
This article describes the development a web-based learning resource that’s content was controlled by both teachers and learners. The result was a comprehensive learning resource containing a range of learning tools from a variety of sources. 19/23 questionnaires were returned completed. Of these 84% (16/19) reported using the resource regularly and 53% (10/19) reported having added content. 95% (18/19) found the resource had improved their learning opportunities and 89% (17/19) thought that peer led teaching had improved since its introduction.

Conclusions
Junior surgical team members have enthusiastically embraced the development of a web-based peer led learning resource that has improved the perceived quality of surgical education.
Encouraging digital content curation in medical education

AM Cunningham, D Cole

AM Cunningham, Academic Lead for eLearning, School of Medicine, Cardiff University, 3rd Floor Neuadd Meirionydd, Heath Park

Background
Students can feel overwhelmed with the rising amount of publicly available content which is free to access online. Digital curation sites allow educators to select the online content which they say as most relevant to their students. It is not just about producing a list of weblinks but adding value by explaining to students what is particularly good about the resource and what the weaknesses might be.

What we are doing?
We are encouraging educators in Cardiff Medical School to consider curating content in their area of expertise and relevant to our course. The pages are publicly available and can give insight to those without access to the university’s virtual learning environment. They can also be linked to from within the VLE so that access is seamless. Students can also use the curation tools to select their own favourite sites from those provided by staff and to keep track of those that they find elsewhere.

How will we evaluate?
Initial feedback is that these tools are easy for staff to manage. We will be able to present more detailed feedback from staff and students at the time of the presentation.

The future?
We believe that the future of elearning in medical education will rely heavily on the reuse and addition of value to existing online content. Digital content curation will become a key literacy for staff and students. Using these tools to support existing courses is a positive way to integrate new pedagogies with current curricula.
Mobile Phones – Good or evil for medical education?

A Motwani, S Choi

A Motwani, Medical Student, Faculty of Medicine, University of Southampton, Southampton, United Kingdom

Background and Purpose
The use of eLearning is an integral part to medical student education. Many medical schools employ online learning to improve education\(^1\). A natural extension of this is the use of mobile phones, where hundreds of medical mobile applications are available. However, in order for medical schools to effectively introduce mobile Learning (mLearning) into their curriculum, it is essential to have a good understanding of how students use their phones on a daily basis to create useful and relevant mLearning tools\(^2\). Furthermore, medical schools should ensure that students are aware of their institutional and NHS foundations mobile phone use policies, understand the rationale behind and comply with them. However, there is little research available on mLearning in medical schools, and further research is required to help medical schools utilise mobile phones for education whilst ensuring that students use the technology appropriately. This study aims to investigate how medical students at the University of Southampton (UoS) use their mobile phones, and their knowledge of and compliance with the policies. The findings will help the UoS and other medical schools to identify the types of mLearning that can support learning effectively, and recommend ways to ensure students’ awareness of and compliance with the institutional and NHS foundations policies.

Methodology
A mixed-method approach, consisting of 2 online questionnaires, and 3 focus groups, will be used. The first questionnaire aims to understand the types of mobile phones students own, their usage and their aid in medical education. The second questionnaire will explore if students are aware of and comply with current mobile phone use policies in academic and clinical environments. The focus groups will be used to gain more detail, complimenting the data from the questionnaires.

Results
Results from the study will be presented along with recommendations for medical schools regarding mLearning and best practice.

Discussion and Conclusions
Although many medical schools globally have begun to use mobile phones as learning devices for their students, there is little evidence demonstrating its effectiveness. Additionally, mobile phone usage in academic and clinical environments is beginning to encroach on existing policies that are in place to protect patients’ rights. With mobile technology evolving, mLearning will begin to take a more predominant role in medical education. Understanding how students use mobile phones will enable medical schools to create an effective mLearning environment where students can take advantage of mobile phones for learning and use them appropriately.

References
Digitally Literate Doctors: Could Conferences Help Bridge the Generation Gap?

N Bedi, SC Wing, TL Lewis, AM Cunningham, WK Wong, J Walker, E Wallitt

N Bedi, Core Surgical Trainee, West Midlands Deanery, Royal College of Surgeons of England, Sandwell General Hospital, B714HJ, UK

Background and purpose
The potential for IT to improve healthcare is exciting but yet not realised. IT services are increasing within the NHS, and therefore doctors are now finding that more IT skills are needed to perform their daily tasks. As technology develops it is essential for doctors and healthcare professionals to keep abreast of changes. IT education must evolve alongside IT technology, so that we can engage appropriately with society and better fulfil our duties as doctors (1). Undergraduate teaching alone may further widen the generation gap from those who were not trained in the digital era. We propose that conferences that include teaching workshops on digital technologies and the internet can help narrow the generation gap and improve our personal and professional lives.

Methodology
Seven participants met through a social network and remotely created a novel National conference. Workshops included broad topics such as safe social networking, efficient task management, software for research, app reviews, an introduction to computer programming and software design. All delegates were asked to complete an online feedback survey regarding their self-assessed digital literacy and whether this had been improved.

Results
The conference ran over two days with 69 attendees whose backgrounds varied widely from consultants to medical students and IT professionals. The online feedback form was completed by 40 (58%) of the attendees. Of the responders 85% felt that the conference was useful and 70% felt that it was unique although 23% found the programming session too technical.

Discussion and Conclusion
Attendance from all levels of the medical profession, including students suggests that IT skills are of relevance to all and delegate feedback confirmed the value of the conference. There were mixed reviews of the programming sessions and this may reflect the heterogeneity of the group. Clinicians have good ideas and an intimate understanding of the problems faced. Although challenging, knowledge of programming may help doctors convey their ideas to professionals, this may provide real benefit from IT solutions. We believe that conferences aimed at teaching clinicians are a useful and responsive way of improving IT skills. These skills are currently improved on a voluntary basis, however we question whether IT skills should be a mandatory part of GMC revalidation and postgraduate training?

References
Evaluating the effectiveness of different teaching methods used in a peer led education

I Reece, N Ruttanaporn, M Mughual

I Reece, Medical Student, Maurice Shock Building University of Leicester, University Road, Leicester, England

Background and Purpose
In May 2012, the University of Leicester’s surgical society (SCRUBS) evaluated the effectiveness of various teaching methods used in a peer led revision session on the musculoskeletal system.

Methodology
Three teaching methods: Problem Based Learning (PBL), Lecture based learning and group discussions, were implemented in the teaching. The revision session consisted of third and fourth year medical students teaching first and second year medical students.

Results
93 students attended the revision session. SCRUBS received fully completed questionnaires from 46 students. The effectiveness of each method was rated from 1 to 5 (1 being very ineffective, 5 being very effective). The enjoyment of each method was also rated from 1 to 5 (1 being very unenjoyable, 5 being very enjoyable). Results showed the group discussion to be the most effective teaching method, with a mean score of 4.04. Lecture based teaching and PBL had mean scores of 3.91 and 3.72 respectively. Group discussion was also the most enjoyable method with a mean score of 3.94. PBL and lecture based teaching had mean scores of 3.61 and 3.72 respectively.

Discussion and Conclusion
The results show that students felt group discussions were the most effective and enjoyable teaching method.
Stakeholder attitudes to criminal convictions in aspiring healthcare professionals

P Garrud, B Doleman

P Garrud, Assistant Director Medical Education, School of Medicine, University of Nottingham, U.K.

Background and Purpose
In recent years, the decision to deny a potential medical student admission to university based on a previous spent conviction has attracted debate on whether criminal convictions should preclude an individual from studying to become a doctor\(^1\). Similar debate was generated following the expulsion of a nursing student for a previous spent conviction for theft\(^2\). These convictions may offer a marker for the risk of further convictions\(^3\). However, concerns have been raised that such convictions may disadvantage applicants from lower socioeconomic backgrounds\(^4\) and threaten efforts to widen participation to undergraduate medical degrees.

Currently, there are no guidelines on which universities can standardise such decisions and each application is judged on an individual basis. This study will aim to explore which criminal convictions are regarded by different groups as acceptable, unacceptable or contentious enough to consider mitigating or aggravating factors. Furthermore, it will aim to explore what mitigating or aggravating factors are viewed as important in the decision process.

Methodology
Stratified samples (n=100) of medical students, recently qualified, and career grade doctors, studying or graduates of the Nottingham medical school, and adult members of the public participated. Those consenting responded to a questionnaire (on-line or postal) in two parts: a) asking for judgments about the suitability of an applicant to medical school with a previous criminal conviction, where the offence was varied (e.g. theft, Class B drug possession), and b) judgments about a number of potential mitigating or aggravating factors in the case of six less serious offences (e.g. drink-driving, threatening behaviour).

Results
In earlier work, judgments varied markedly amongst admissions tutors – e.g. considering mitigation for very serious crimes – but demonstrated agreement that ethnicity and social disadvantage were not relevant mitigating factors. The present results are analysed using SPSS. In particular the results are used to test the hypothesis that members of the public view prior convictions more harshly than doctors, and doctors than medical students.

Discussion and Conclusions
This study is one piece of work that aims to facilitate convergence in decision making about selection for medicine, in particular to identify consensus amongst stakeholders about a suitable framework for considering police records in admission.

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Developing Entrustable Professional Activities (EPA) for the Competency Based Fellowship Program for Psychiatry in Australia and New Zealand

S Fletcher, E Halley, C Schapper, M Orkin, J Crawshaw, S Jurd, W DeBeer

S Fletcher, The Royal Australian and New Zealand College of Psychiatrists (RANZCP), Melbourne Australia

Background and Purpose
In December 2012, the Royal Australian and New Zealand College of Psychiatrists (RANZCP) introduced the Competency Based Fellowship Program (CBFP). The CBFP was designed to include best practice for medical education and address workforce issues. Entrustable Professional Activities (EPAs) (1-3) were introduced as part of the suite of CBFP summative assessment tools. EPAs are designed to help operationalise competency based education by integrating competencies into workforce activities. EPAs are described as being observable and measurable in their process and their outcome reflects the competence of the Trainee (2). EPAs were introduced to help supervisors in their determination of competence of trainees and to provide trainees with a framework to monitor their progress (1). This paper outlines the processes involved in developing EPAs for the CBFP. The rationale for their introduction and the benefits will also be discussed.

Methods
The CanMeds (4, 5) model and the seven CanMeds Competencies (6) were adapted to suit the context of psychiatry. From this, key learning outcomes and developmental descriptors were constructed. The program and assessments were then comprehensively mapped to the competencies and learning outcomes. The CBFP comprises Stage 1, 2, and 3. In each stage, trainees are required to complete a minimum number of EPAs related to specific areas of practice, e.g., Adult Psychiatry or Child and Adolescent Psychiatry. A working party from each area of practice was established to develop their specific EPAs using RANZCP approved templates to provide guidance and structure. Each EPA was mapped to the required standard, e.g., Stage 1, learning outcomes, developmental descriptors, and Fellowship competencies. A group of key Fellows, Trainees, and Supervisors then acted as a moderation panel to ensure consistency of standard, content, and the relevance to role of a Psychiatrist. Each EPA was reviewed and approved by the RANZCP Board of Education.

Discussion and Conclusions
The application of EPAs to the CBFP provides structure to the supervision arrangements and allows Trainees to track or map their progress. Attaining an EPA shows that a Supervisor can trust a Trainee to perform that activity with only distant (reactive) supervision, as the Trainee knows when to ask for additional help and can be trusted to seek assistance in a timely manner. The development of the EPAs will be discussed with reference to improved standards for Psychiatrists in Australia and New Zealand.

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Educating our students to work in a multicultural society

P Fisher, E Haque, P McDonald

P Fisher, Clinical lecturer, Department of Community based Medical Education, University of Manchester

Background and purpose
One in eight adults in the UK today were born overseas¹. Patterns of illness in migrant communities are affected by differences in genetics, exposure to infectious diseases and lifestyles influences. Furthermore migrants have different experiences and expectations of healthcare and may face language and cultural barriers in accessing care. We need to prepare our students for the challenge of delivering care to a multicultural population, and at the same time we must acknowledge the diversity of the student body itself. A student selected module on global health issues within the UK provided us with the opportunity to pilot teaching in this field.

Method
A hub and spoke model was used to support this student selected component. Students attended teaching in the university base (the hub) and went out in pairs to general practices serving large ethnic minority populations (the spokes). They observed consultations and carried out relevant audits in the practices, with debriefing and support centrally. Teaching included how to do an audit, diseases affecting migrant communities, using interpreters, barriers to access, looking beyond our own expectations and how the asylum system works.

Results
29/47 of the students choosing this module themselves came from families who had migrated to the UK.
Topics audited included hepatitis C testing in the patients from Pakistan, HIV testing in patients from Africa, blood pressure control in African populations, haemoglobinopathy screening and ethnicity as an influence on length of consultations.
Feedback from students revealed high levels of satisfaction with the module, including positive comments on both the topic area and the model of delivery:
"An eye-opener towards a different population that we may have to deal with later”
“My friends seemed quite jealous that I was receiving such excellent teaching about immigrant health and global health issues.”
“focused on a topic not taught on the medical programme… feel like I have a slight edge on other people on my course because of it”

Discussion
We believe teaching in this area of practice should be mainstreamed. Not only is our patient population diverse but so is our student body. Teaching in this area acknowledges the diversity not only in our patient population but also in our student body and medical community.

References
Introducing a Competency Based Fellowship Program for Psychiatry in Australia and New Zealand

S Fletcher, E Halley, C Schapper, M Orkin, J Crawshaw, S Jurd, W DeBeer

S Fletcher, The Royal Australian and New Zealand College of Psychiatrists (RANZCP), Melbourne Australia

Background and Purpose
In December 2012, the Royal Australian and New Zealand College of Psychiatrists (RANZCP) introduced the Competency Based Fellowship Program (CBFP). The CBFP was the result of 5 years of systematic development of a curriculum improvement driven competency based training program designed to assist workforce shortages and increase the quality of psychiatrists entering independent practice. Increasing demands on the mental health sector and the need for the RANZCP to maintain best practice medical education were key reasons for the change. This paper outlines the CBFP highlighting the new inclusions and structure of the program. The rationale for the change and the benefits of the CBFP will also be discussed.

The Program
The CanMeds (1, 2) model was adapted as the best practice model for medical education. The RANZCP embarked on a development process where the seven CanMeds Competencies (medical expert, communicator, collaborator, manager, health advocate, Scholar and professional [3]) were adapted to suit the context of psychiatry. From this, key learning outcomes and developmental descriptors for each stage of the training (Stage 1, Stage 2, and Stage 3) were constructed. The program and assessments were then comprehensively mapped to the competencies and learning outcomes. Summative Entrustable Professional Activities (EPAs) and formative Workplace Based Assessments (WBAs) were introduced to help supervisors in their determination of trainee competence and provide a framework for provision of feedback to trainees (4, 5). In each stage trainees complete a set number of rotations, EPAs and WBAs. A revised assessment structure is being implemented with trainees completing a written exam (2 papers), a scholarly project (new), Psychotherapy written Case, Observed Structured Clinical Examination (OSCE), and an Observed Clinical Interview (OCI).

Benefits of the New Program
The CBFP adaptation of the CanMeds competencies in the context of Psychiatry provides a framework of key competencies and learning objectives focused on developing Trainee psychiatrists' competence so that they are completely prepared to enter the workforce upon attainment of Fellowship. The introduction of EPAs and WBAs provides structure to the supervision arrangements and allows trainees to better track or map their progress than the previous training model. The inclusion of EPAs and WBAs provides Trainees and Supervisors with a key feedback mechanism that will help progress training towards Fellowship.

References
3. See http://www.ranzcp.org/Pre-Fellowship/2012-Fellowship-Program/About-the-training-program/Fellowship-competencies.aspx
Clinical Skills & Teaching and Learning
Can open-access virtual patients be integrated into diverse UK medical schools? Results from a multi-centre study

J Bateman, ME Allen, J Kidd, N Parsons, D Davies

J Bateman, Arthritis Research UK Education Research Fellow & SPR Rheumatology, Education Research and Development Team, Warwick Medical School, UK

Background and Purpose
Virtual patients (VPs) are computer representations of realistic clinical cases that are widely used to teach medical students. Although evidence supports their use, best practice for their design and curricular integration remains the subject of research\(^1,2\). We set out to research integration of open-access VPs into different curricula as part of a wider study into VP use.

Methodology
This is a randomised, multi-centre 2x2 factorial study exploring VP design properties in musculoskeletal (MSK) medicine for teaching medical students. Participants were volunteers from three diverse UK medical schools: Warwick (WMS); Birmingham (UBMS); and Keele (KMS). We used a planned protocol with institution ethics approval\(^3\). Students were randomised to four different VP designs across four MSK topics. All students received a short talk, watched a video, and were given written information. The VP integration, timing and delivery differed across the three schools. At WMS, VPs were integrated four teaching sessions during an MSK block. At UBMS, VPs were completed during into a seven-week MSK block, with students completing VPs in their own time. At KMS, the whole year-group was invited to complete VPs in two Friday afternoon sessions not aligned to MSK teaching. All students were asked to complete an established self-reported evaluation after each VP\(^2\). Individual participation and performance metrics were not passed to faculty at any site.

Results
We invited 718 students to take part from three institutions (WMS 231, UBMS 354, KMS 133). In total 591 (82.5%) consented to participate: WMS 218/231, 95.4%; UMBS 262/354, 73.4%; KMS 111/133, 83.5%. Participants completed 1774 VPs, mean 3.0/student: WMS 726, 3.3/student; UBMS 741, 2.8/student; KMS 297 VPs, 2.8/student. Students completed the most cases at WMS (P<0.05), and spent the most time per case at UBMS (P<.05): UBMS 31.8 mins; WMS 26.2 mins; KMS 26.5 mins. Student scores were highest at UBMS (UBMS mean 9.2/15 per case, WMS 8.1, KMS 7.9). We collected 1229 complete case evaluations (70.8%) with 154 ‘free text’ comments. VPs were very positively evaluated (mean score 44.9/55, SD 5.4), with no significant differences between the three institutions (P=.36). At UBMS, the only school with no timetabled sessions, students completed 19.8% (147) of cases at the weekend, where they spent significantly more time (35.8 mins/VP) and made more correct diagnoses (both P<.05) compared to VPs completed during the week.

Discussion and Conclusions
This evidence suggests properly developed VPs can be flexibly integrated into curricula and student populations, with high participation and satisfaction scores. Numerous factors may explain differences in participation and performance between schools. This work provides evidence to support integration and delivery of VPs. These research VPs are open-access, freely available to support UK medical student education. Technical and logistical challenges remain in making VPs available to students at a regional and national level.

References
Supporting Doctors New to UK Practice in the North East and Cumbria

G Kirk, C Tiplady

G Kirk, Educational Practitioner, Northern Deanery - NHS North East

Background and Purpose
Current statistics indicate that one third of the UK’s current licensed Doctors qualified outside the UK. Evidently, the UK currently relies heavily on the skill and dedication of Doctors who are trained overseas (1). Recognising this, the Northern Deanery has invested in the development of effective training, development and support mechanisms designed specifically for this key group of Doctors. With a successful annual one day induction programme already established and designed to support the integration of Doctors new to UK practice across the region, the focus in 2012 was to develop an additional cultural aspect to the event. The Northern Deanery recognise that Doctors who are trained abroad can face difficulties with cultural differences and communication (2) when they start to practise in the UK.

Methodology
A continuous improvement method was applied to the content development, creating a holistic, integrated approach to the process overall. Using action research methods, theory and practice were generated in unison (3), with methods including; eliciting perceptions through conversation, group discussion, evaluation and feedback, with a range of both regional and national representatives invited to attend and encouraged to review the innovative inclusion.

Results
Our feedback shows 100% of attendees reported a positive response to the cultural element of the induction and valued its inclusion. The GMC (General Medical Council), in attendance at the 2012 Induction, championed the approach and are linking with the Northern Deanery to run an induction pilot in 2013.

Discussion and Conclusions
Agreement that a cultural induction is of value, and should continue was unanimous. A significant outcome was the request for guidance surrounding ‘everyday life’ needs, e.g. obtaining a driving licence, finding accommodation and opening bank accounts. This challenged the previously assumed and expected outcome that professional context would be the lead focus of information requests, highlighting the value of evaluation. Additionally a potential barrier to future improvement was identified, as currently there is a lack of data available regarding the development and training completed by Doctors new to UK practice and their career progression following such interventions. Future focus will include the exploration of potential data capture methods and uses, with the immediate focus for 2013/14 centring upon the development of a multidimensional suite of resources, designed to complement cultural induction and offer support. Core features such as communication skills development and buddy systems will be established, with the intention of sharing best practice and methodology.

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Cardiology E-learning module: a strategy to enhance individual-specific learning

R Curran, PA Patel

R Curran, Foundation Year Trainee, Leeds Teaching Hospitals NHS Trust, UK

Background and Purpose
Ischaemic heart disease is a leading cause of morbidity and mortality in the UK, accounting for 2.8% of inpatient admissions and contributing significantly to NHS budget strains. The Leeds Teaching Hospitals NHS Trust offers a tertiary cardiology centre. However, a recent audit assessing diagnosis and management of suspected acute coronary syndromes identified areas of concerns, with frequent deviation from ESC and NICE guidelines. In particular, education of junior doctors and accessibility of trust guidelines was highlighted for improvement. A niche was therefore apparent for the development of a resourceful, innovative and engaging tool to disseminate evidence-based knowledge to trainees from a range of disciplines, including medical students, foundation trainees rotating in cardiology and emergency medicine trainees.

Methodology
There are many theories which attempt to unravel the complexities of learning processes. It is commonly believed that learning is individual-specific, and therefore, a modality which incorporates auditory, visual and interactive elements is thought to optimise approach. E-learning tools facilitate individual learning styles due to the scope offered via multimedia and have been proven to enhance knowledge recall. This offered the motivation to create an e-Learning package. After enlisting the aid of influential bodies such as Medical Education and Illustration, a powerful design software (Microsoft Articulate) was employed to create the module. Using national and trust guidelines, we identified core topics for inclusion. A range of videos, podcasts, interactive case scenarios and quizzes with feedback were incorporated to offer diversity and enhance learning.

Results
The educational tool was piloted amongst a subsection of the target audience. Formal feedback was collected to direct improvements and to optimise ease of use. The final product has been approved for integration into the final year medical curriculum (MBChB) at University of Leeds. We hope to branch to postgraduate trainees in Cardiology and ED shortly. Feedback questionnaires shall collate quantitative data on functionality, relevance and effectiveness as a learning tool. Formal results shall be presented at the meeting.

Discussion and Conclusions
Recent studies have supported a shift towards e-learning packages as a tool to enhance theory-based acquisition of knowledge and skills. The results from our pilot study shall hopefully support this perception and if so, there may be compelling evidence to advocate such a strategy in delivery of medical education to other trusts.

References
Using students’ personal stories for learning

J Goodfellow, V Ellison, A McGrath, N Catherwood, C Thomson, J Johnston, M Corrigan, K McGlade

J Goodfellow and V Ellison, second year medical students, Queen’s University Belfast

Background and Purpose
Narrative techniques are being increasingly employed to help understand complex social interactions. In this project, students were engaged both as researchers and subjects with the objective of collecting students’ own stories of their experiences of medicine before and during medical school. In particular we were interested in how professional identity is formed and whether the phenomenon of the loss of idealism and emergence of cynicism, observed as students progress\(^1\), could be addressed with materials derived from these interviews. This paper describes the research process and how we have approached the organisation of these potentially useful learning materials.

Methodology
First and fourth year students interviewed their respective year groups on video to capture their stories. These together with “field notes” and research diaries were analysed for content and themes by the research team consisting of students and academics.

A website was thought to be a useful way both to organise and provide access to the interview materials for teaching and learning purposes. Brainstorming and storyboarding techniques were employed to develop a suitable layout for the website to have the greatest impact on learning.

Results
To reflect a process of continual growth through the medical profession it was decided a suitable website metaphor needed to have a progressive element. Ideas included “snakes and ladders”, a river trip, a hospital corridor but eventually a “monopoly” game board was settled on. This incorporates important elements relevant to medical students’ development; an on-going pathway, elements of chance and external influences and opportunities. Those themes deemed most relevant or important as identified in the interviews will feature significantly in the website. Emergent themes included students’ expectations, their motivation for medicine, their personal experiences and ideas of professionalism in medical school and what that might mean.

Discussion and conclusions
Not all scenarios will be relevant to every student but different perspectives can serve learning. Following-up the students as they progress through medical school and monitoring how opinions and stories change will be important as will updating the learning materials. The small window this work provides on the hidden curriculum may have an impact on future curricular development.

Reference
The future of anatomy: The impact of artistic learning techniques

ID Keenan, S Jackson

ID Keenan, Teaching Fellow, Anatomy and Clinical Skills Centre, School of Medical Sciences Education Development, The Medical School, Newcastle University, Framlington Place, Newcastle upon Tyne, UK

Background and purpose
Since the illustrations of Leonardo da Vinci in the 16th century, artistic portrayals of human anatomy have been used in education. While there is little evidence to support the idea that some students are visual learners [1], modern students of anatomy take a variety of approaches to learning including visualisation [2]. Drawing can fulfil components of experiential learning [3] and it is known that visual artistic techniques can improve learning [4] but few studies have investigated drawing as a method of learning anatomy [5-7]. We hypothesise that incorporating drawing into anatomy teaching sessions can improve learning. We aim to investigate if learning is enhanced by drawing alone or when drawing is combined with established methods of anatomy teaching.

Methodology
MBBS anatomy students will be divided into six groups (n=20) of equivalent academic ability. Students will be pre-tested with multiple choice questions (MCQ) to test prior knowledge. Each group will be taught the same topic separately using three alternative techniques. Two of the groups will be taught in a drawing session only, two groups will use prosections followed by a drawing session and two groups will learn with prosections only. Students will then be tested by MCQ immediately following the session to measure surface or short-term learning. Deeper or longer term learning can subsequently be measured by MCQ testing several weeks following the study session and/or by formal assessment. Appropriate ethical approval for this study is pending.

Results
The data obtained will be analysed to determine if there are statistically significant differences in learning achieved by students who have learned by drawing when compared to those who have been taught using established methods only. Qualitative feedback from students will also be considered.

Discussion and conclusions
If drawing anatomy is shown to significantly improve learning, the ultimate outcome is anticipated to be the introduction of anatomy drawing classes into the MBBS curriculum. Collaborations with artists can be forged in order to deliver effective learning.

References
Evaluating the confidence of fourth and final year medical students in direct ophthalmoscopy

C Schulz, P Hodgkins

C Schulz, Portsmouth Hospitals NHS Trust

Introduction
Graduating doctors should be confident in recognising ophthalmic signs of disease. There is limited evidence exploring the confidence of medical students in direct ophthalmoscopy and identifying ocular pathology.

Purpose
(1) To evaluate the confidence of medical students in direct ophthalmoscopy. (2) To understand how confidence varies between fourth year students following their clinical ophthalmology training, and final year students prior to graduating. (3) To explore what specific factors may be associated with improved levels of confidence.

Methods
A questionnaire was designed to quantify students’ experience in ophthalmoscopy, and to assess their confidence in using an ophthalmoscope to identify both normal anatomy and pathological features. This survey was completed by 116 fourth year and by 93 final year students.

Results
43% of final year students were confident in examining a dilated eye by direct ophthalmoscopy, compared to 88% of fourth year students. Of the 209 students, fewer than 40% felt confident identifying any pathological features. Students reporting increased exposure to abnormal pathology were more confident in recognising papilloedema (n=0.001), diabetic retinopathy (n=0.015) and hypertensive changes (n=0.012) than their counterparts. Higher levels of confidence were also found in students that reported receiving assessment and feedback in ophthalmoscopy.

Conclusions
Final year medical students are not sufficiently confident in their ability to use the direct ophthalmoscope and recognise ocular pathology. There is a marked deterioration in confidence between fourth year medical students following their dedicated ophthalmology training, and final year students preparing to graduate. We suggest that refresher-training, sufficient exposure to abnormal pathology and assessment are essential in improving student confidence in direct ophthalmoscopy.
Assessment of Bench top model to enhance student performance as assessed by DOPS.

A Mahmood, S Mallappa, N Kamal, A Jethwa, J Pitkin

A Mahmood, Undergraduate Department, Northwick Park Hospital, Harrow, UK.

Background and Purpose
Medical students need to be aware of their responsibility to maintain their clinical skills throughout their careers and complete e-portfolios. Work place based assessments (WPBA) are established postgraduate assessment tools. ‘DOPS’ (direct observed procedural skill) assessment is one such WPBA. There are concerns that students lack the appropriate skills to perform routine outpatient gynaecology procedures. We aimed to evaluate the introduction of ‘DOPS’ on ‘cervical smear examination’ (CSE) to Year-5 medical students. The objective was to provide students with an opportunity to learn and improve their skills.

Methodology
Fifth-year medical students undertook ‘DOPS’ assessments for CSE, students were performing the smear two weeks after starting their gynaecological rotation. The students were divided into two groups and one group had a ‘bench top model’ (BTM) to practice the skill before the actual smear session as a DOPS. The second group went ahead for DOPS session after having had a traditional explanation of the cervical smear. They were supervised by experienced gynaecology teaching fellows. Feedback was collected through post-assessment questionnaires.

Results
90.47% agreed that they felt more prepared to perform the CSE on a patient after having being taught on a BTM. 91% felt more confident to explain the procedure to a patient owing to a better understanding of the procedure and the terminology involved. 85.71% felt that the National Cervical Smear Screening programme was more clearly enforced while preparing on a BTM.

Discussion and Conclusions
Cervical smear examination is an important practical skill to learn to assist in the gynaecology outpatient clinic; hence the need for well-structured cervical smear examination ‘DOPS’ assessments to enhance training. Using low fidelity simulation such as a bench top model for cervical smear examination training, student learning was enhanced which was reflected by DOPS. It increases student confidence and may facilitate transition of skills from practice on a model to the outpatient clinic. Also, a follow-up longitudinal study is necessary to assess their performance in the outpatient clinic setting.
Understanding the NHS

E Haque, S Collins, R Lindley, S Holmes, S Smithson
E Haque, University of Manchester, Manchester

Background and Purpose
In an ever changing NHS, medical students feel at a loss to understand the plans coming through, and the potential impact this will have on their future careers. In order to address this, we delivered a series of workshops to year two medical students in Manchester, who were hoping to begin clinical years soon. The workshop had the following aims:

- To outline the structure of the NHS
- To outline the Health and Social Care Bill
- To outline how medical students can get involved
- To outline career paths

Methodology
Two workshops were delivered to thirty medical students, at the end of their academic year. The voluntary sign up was advertised on the student website, Medlea, and was available to all year two students. A PowerPoint presentation was utilised to discuss the main issues, but there was largely an opportunity for group discussion to explore the issues raised. A debate on the Health and Social care Bill was also organised, with students exploring the pros and cons. At the end of the session, student written feedback was obtained to determine the impact of the learning experience.

Results
Fifteen students (50%) completed the written feedback questionnaire. In terms of what they were hoping to gain from the session, the majority wanted a better understanding of the NHS and new legislation, and also an insight into training opportunities. They all agreed that these objectives were achieved.

Looking at specific positive aspects, it was felt that the session was both interactive and provided a good overview of the two important topics. Areas for improvement included more time to cover the topics in better detail. Some students also felt introduction to clinical years was more important to learn than foundation year and beyond. The debate drew mixed responses—some students felt it was very enjoyable, but others felt it went on for too long or that they did not have sufficient knowledge to participate in it.

Discussion and Conclusion
This pilot workshop effectively addressed the need of medical students to understand the NHS, which could improve their role in “Doctor as Professional” (GMC 2009) The plan is to explore the feasibility of the workshop with the Medical School, and to determine where and when it would be best placed in the curriculum.

Reference
GMC (2009) Tomorrow’s Doctors
(accessed 21.6.12)
The four stage approach to skills teaching - room for more hands on?

A Thomson

A Thomson, Clinical Teaching Fellow, North Bristol Academy, Bristol University, Bristol, England

**Background and Purpose**
Educational theory in skills teaching has evolved considerably in recent years, with the traditional ‘see one, do one, teach one’ method considered a thing of the past. The four stage approach is now widely accepted in skills teaching. The four stage approach breaks skills teaching into stages of demonstration, deconstruction, formulation and performance of the skill. One criticism of this method is that the first 3 stages are performed by the teacher, with the student getting ‘hands on’ only in the fourth and final stage. Considering skill acquisition lies primarily in the psychomotor learning domain, it seems that this approach has excessive emphasis on teaching the student to ‘know how’ to perform a skill, rather than being able to actually ‘do it’. This study evaluates an alternative method of skills teaching which has greater emphasis on psychomotor learning.

**Methodology**
This is a teaching evaluation project. The ‘hands on four stage’ teaching model retains a four stage structure; however it has been adjusted to include demonstration and deconstruction of the skill by the teacher in the first and second stages, followed by a third stage where the learner performs the skill under instruction and a fourth stage with the learner performing the skill under guidance. This model has been applied to procedural skills teaching to undergraduate medical students and has been assessed against Peyton’s four stage approach. Assessment criteria include time to skill acquisition and number of mistakes.

**Discussion and Conclusions**
This is a work in progress and is in the pilot stage. The project is on-going; however the evaluation will be complete for presentation at the ASME scientific meeting in July 2013. Feedback from students and learners at this stage has been in favour of the ‘hands on four stage’ approach and it is felt that this project has potential in adding to our understanding of how best to teach procedural skills in medicine.

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Assessment
Permissions for Video Feedback: A Dilemma?

J Gosai, C Gay, S Riby, R Molyneux, F Chowdhury, S Pathmanathan, M Purva

J Gosai, Hull Institute for Learning and Simulation, Anlaby Road, Hull, HU3 2JZ

Background
In common with many simulation programmes, video recording is used in our simulation centres. This enables effective real-time viewing of scenario progression and immediate debrief. The Scotia Medical Observation and Training System (SMOTS) system utilises continuous recording from all connected cameras, with electronic storage in a central server.

All those that enter the simulation area are informed about the presence of these recording devices, and active participants are asked to provide written consent for specific storage and use of this footage. Recent events have led us to consider this in more detail.

Methods
At present, all those participating in simulation are asked to consent for the storage of images solely for the purposes of training and debrief on that occasion, with automatic deletion after a short period. Further consent is required for any ongoing storage, export or review of these images.

We consider whether the addition of a clause to allow for further review and potentially export of these images in the event that candidate performance in the simulation raises sufficient concerns to warrant follow up is justified.

Discussion
Clearly this is a sensitive and difficult issue. One may argue that the simulation centre should remain a “safe area” in which not only is there no risk to patient safety, but also to candidate emotional safety. Our current policy reflects this; we will only record and use images for the immediate debrief, and seek further consent if any other use is planned. On the other hand, it may be very useful to use the recorded footage to further debrief at a later date (for example to guide any further training planned), or for validation if any dispute arises between candidate and debriefer. However, this may introduce the temptation for misuse or leak of this data which will remove the credibility of the educator. It may be that poor performance within the simulation is an exceptional circumstance, or does not accurately reflect the learner’s clinical competence.

Conclusions
This is an area ripe for debate as adoption of simulation training with video recorded scenarios increases. It is imperative that we as educators retain our focus. Whilst there may be advantages in broadening the scope of use of our video footage, there are significant risks inherent in this strategy which have the potential to destroy trust in those educators and simulation as an educational tool.
Understanding, attitudes and utilisation of the procedure based assessment tool in UK Orthopaedic practice

D Tennent, I Roushdi

D Tennent, Consultant Orthopaedic surgeon and Honorary Senior Lecturer, St Georges University of London

Background and purpose
Procedure based assessments (PBAs) were developed as a formative assessment tool to help facilitate learning and provide a valid and acceptable means of providing feedback and monitoring progress.¹

However, there has been early and sustained dissatisfaction and concern²,³ over the transition of a formative tool into a mandatory and summative one. The resultant ambiguity of purpose has resulted in anecdotal reports of confusion and abuse of the PBA tool.

Methodology
A paper survey was carried out on Orthopaedic surgeons of consultant and registrar grades to establish understanding, attitudes and utilisation of the PBA tool and its underlying purpose. The questions focussed on the purpose of the PBA and its correct application as well as allowing for open commentary.

Results
Full results will be presented. Results indicate that the PBA tool is frequently being used without training or reference to the appropriate validation document. It is also widely felt to be a summative assessment tool with the possibility of failure. Many surgeons used the PBA as a marker of a trainee’s general ability, rather than performance during the procedure being assessed and as a ‘license for independent practice.’ The comment was also frequently made by both trainees and trainers that the process had degenerated into a ‘tickbox exercise’ of little educational value.

Discussion and Conclusions
Lord Acton in a letter to Bishop Creighton famously stated that ‘Power tends to corrupt, and absolute power corrupts absolutely’. As formative assessment tools are interpreted to have increasingly summative power it is vital to ensure they are being used appropriately. This study demonstrates a permeative lack of training in the use of and subsequent correct utilisation of the PBA tool. The authors suggest that this must be addressed or there is a risk of a valuable educational tool being undermined.

Bibliography
Does the timing of teaching in procedural skills affect performance in an end of year OSCE?

GJ Gormley, A Safari, T McCartney, M Stevenson

GJ Gormley, Senior Clinical Academic General Practitioner, Centre for Medical Education, Queen’s University Belfast (QUB), Northern Ireland

Background and purpose
Medical curricula often follow a teaching pattern were students sequentially rotate around specialities and are assessed in an end of year OSCE. Evidence suggests that competency in psychomotor skills decay with time if not maintained.1 In Phase 4 of the medical degree programme at QUB - students rotate around 3 subjects (i.e. 6 weeks in each of Perioperative and Emergency Medicine (POEM), Paeds and O&G) before performing in an end of semester integrated OSCE. Students are offered the opportunity to practice on procedural skills throughout the semester – but few take this offer up. Procedural skills feature prominently in POEM stations. The aim of this preliminary study is to gain a greater understanding of whether the timing of teaching in procedural skills has any association with performance in an end of semester OSCE

Methodology
6 OSCE data sets were used in this study. Candidates’ OSCE station performances were matched to the time of teaching in the 3 separate teaching blocks during the academic semester. Analysis focused on those who were taught POEM at the beginning of the academic semester compared to those taught POEM later in the academic semester. One way ANOVA analysis was used to compare mean OSCE station scores.

Results
Overall in the 6 OSCEs - there were 22/66 POEM stations. 9/22 (40.1%) procedural and 13/22 (59.9%) non-procedural. In 4/9 (44.4%) of the procedural stations – candidates who were taught POEM at the beginning of the year had significantly lower mean OSCE station scores \((p 0.028; 0.001; 0.046; 0.002)\) compared to those who taught POEM nearer to the OSCE. In 2/13 (23.1%) non-procedural POEM OSCE stations - candidates mean station scores were significantly less \((p 0.008; 0.011)\) compared to those who were taught POEM near to the OSCE date.

Discussion and conclusions
In the majority of cases there appears to be no effect of the timing of subject teaching and performance in these relevant stations in an end of semester OSCE. However for a notable number of procedural stations - candidates who had the greatest time interval between their teaching and assessment – did not perform as well compared to those who had a shorter interval. This preliminary data has highlighted an important issue that requires further, large scale research and potentially the need to consider utilizing different teaching and assessment frameworks for procedural skills.

References
Basic Science Teaching/Education
Problem based learning: a more rewarding learning experience?

F Mughal, A Meki, A Parsloe, A Ryan, C Barton, J Clark, H Lee, R Stores

F Mughal, General Practice Speciality Trainee, School of Population and Health Sciences, University of Birmingham, Edgbaston, United Kingdom

Background and Purpose
Since its first implementation at McMaster University, Canada in 1969 1 Problem-based learning (PBL) has become more prevalent within Medical School curricula. Indeed some medical schools in the United Kingdom now teach a fully integrated PBL course. Within such institutions there is evidence demonstrating that PBL is a more rewarding learning experience for students, and that students generally favour PBL against ‘lecture-based’ traditional pedagogy 2. There is, however, limited research that compares student satisfaction and their learning behaviours when both teaching methodologies are applied to a single cohort. This study aims to explore these, in order to reflect on the effectiveness of current teaching techniques, endeavouring to increase student satisfaction and enjoyment in learning.

Methodology
A cross-sectional study of 260 undergraduate medical students at the University of Birmingham was undertaken through personal questionnaires. The questionnaire explored the students’ preferred teaching methodology, the learning resources they utilised and their learning behaviours. Data was analysed using Chi squared and Fisher’s exact test.

Results
The response rate was 55%. 99% of students were taught by traditional teaching methods in secondary education, and of these, 59% did not feel prepared for medical education. 97% of students preferred traditional teaching over PBL, with a more accessible structure and greater clarity being important reasons. The internet was the commonest resource used in PBL study, whereas textbooks were the most used resource in traditional learning. There appears to be no significant difference between both teaching methodologies in the average time students engaged in library study.

Discussion and Conclusions
Despite the growing integration of PBL into Medical School curricula, this study demonstrates a population where the majority of students still appear to prefer the more traditional approach. To achieve a more rewarding learning experience from PBL whilst enabling students to develop responsibility for managing their own learning needs 3, we recommend a phased integration of PBL into medical education with a concerted effort to establish a positive PBL ethos with clearer objectives which students can use as a foundation for their lifelong learning. In addition, it is necessary to identify the positive aspects of traditional teaching and appropriately implement this into PBL methodology to achieve maximal benefit.

References
Medical Student Attire in the Orthopaedic Outpatient Department

A Jabbal, D Porter

A Jabbal, Medical Student, The University of Edinburgh College of Medicine and Veterinary Medicine, 49 Little France Crescent, Edinburgh, EH16 4SB

Background and Purpose
In the 3rd century BC, Hippocrates proclaimed that doctors should “be clean in person, well-dressed, and anointed with sweet smelling unguents”\(^1\). Although medicine has evolved considerably since then, first impressions still play a significant role in establishing a successful rapport between doctor and patient. Currently, medical students are not given specific guidance on how best to dress, which allows them to wear what they interpret as appropriate which may not always be optimal. Many studies have shown that a doctor’s attire can greatly affect the trust and confidence a patient has in the care and advice they receive, as well as overall satisfaction with the consultation. However, no studies have been carried out for patient response to medical student attire. This study aims to determine if patients thought it was important how medical students dresses. Furthermore to determine patients attitudes towards the traditional white coat.

Methodology
This study was conducted in the orthopaedic out-patient department in the Royal Infirmary of Edinburgh. The first phase involved a patient questionnaire based on pictures of medical students in various clothing styles. This was followed by a second live phase where patients were seen by medical students dressed with or without white coats and were asked to complete a survey assessing their response to the student and consultation based solely on their dress. The questions for the survey addressed whether the student looked professional, clean, intimidating and whether the patient would like to be able to differentiate doctors from medical students, areas which other papers highlighted as key\(^2\).

Results
Across both phases the results showed that patients favour medical students wearing white coats, they scored highest in the fields of cleanliness and professionalism. They were not found to be more intimidating than other dress styles. 90% of respondents thought it was important how medical students dressed and 78% would like to be able to distinguish medical students from senior doctors.

Discussion and Conclusions
Medical student attire is an important issue for patients. It has been shown that patients did not find students dressed in white coats intimidating and they make students come across as more professional allowing higher trust in their advice, enhancing patient experience. We recommend that medical students should be given more direction when told how to dress to help instil higher satisfaction from patients. Furthermore, the opinions of white coats should be further explored and their reinstitution considered.

Reference
Clinical Skills
University of Aberdeen Student Assistantship; when, where and how?

WA Watson, L Hawick, A Revolta, J Duncan, ME Cruickshank, R Patey

WA Watson, Consultant Physician/Diabetologist, Deputy Final Year Coordinator Division of Medical and Dental Education, 3rd Floor Polwarth Building, Foresterhill, Aberdeen AB25 2ZD

Background and Purpose
Across the Final Year of our Curriculum students have the opportunity to experience an ‘apprenticeship style’ of learning. The ‘Student Assistantship’ (SA), under GMC guidance,\(^1,2\) enhances this with further integration into the work place and hands on work as a Foundation Doctor. SA requirements are highlighted during a two week Professional Practice Block which starts the year. Four 8 week blocks follow; Medicine, Surgery, GP or Psychiatry and an Elective ending with a final further two week Professional Practice Block. During the hospital based clinical blocks (Medicine & Surgery) the SA is integrated into each. We aim to share our challenges and experiences in introducing SA to a final year already designed to adopt an apprenticeship approach.

Methodology
During the last week of the block all students were invited to complete an online questionnaire to feedback their experiences. Students were invited to attend an end of block focus group to discuss their SA experiences. Throughout the academic year the results were collated and analysed.

Results
SA learning outcomes from ‘Tomorrows Doctor’\(^1\) and students’ perceived competence revealed a positive trend for completeness over the academic year. 100% students reported an understanding of the FY role by block 4. The most insightful data were free text responses relating to the value of the SA, challenges, suggestions for change and advice for ‘the next’ student.

As the academic year progressed students spent longer in the SA role; Block 1 70% students undertook 1 week SA rising to 15% students spending >4 weeks in block 4 medicine. Specific skills experience increased e.g. the handover process 74% Block 1 through to 89.5% Block 4, out of hours experience by 80% medicine to 100% surgery in Block 4.

Discussion and Conclusions
For a positive SA experience we would recommend 1. Good organisation in the clinical environment 2. Involvement of the multi-disciplinary team 3. Aware of the students’ own training needs; share with staff on ward 4. Plan the year and consider the variety of opportunities 5. Speak and share experiences; aids reflection and future planning.

The introduction of the SA has been a vehicle to increase our faculty quality assurance and improve our clinical placements by integrating our students into the healthcare team whilst being aware of challenges in specific clinical areas. The SA dovetails into the shadowing experience and onwards into FY posts; the students of today being our mentors for the student assistantship tomorrow.

References
Development of induction programme for non UK graduates

A Williamson, S O’Neill, V Robson, J Hanson

A Williamson, Medical Education Manager, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Royal Victoria Infirmary, Newcastle Upon Tyne, UK

Introduction
All staff require a structured, robust induction to their new environment. The needs of staff new to the NHS from a non UK background have been shown to be different and not met by existing induction programmes. ¹

Aims
• To develop a structured induction process to address the needs of non UK graduates
• To enhance patient safety by ensuring a greater understanding of UK practice
• To allow staff to fully integrate into clinical teams as quickly as possible
• To use the process to inform individualised personal development plans (PDP)

Methods
Existing induction arrangements were reviewed with the College Tutor in Intensive Care, a specialty that regularly receives non UK graduate junior doctors. A gap analysis was completed and a programme developed that included low and high fidelity simulation of clinical scenarios to allow individuals to practice emergency scenarios and receive constructive debrief. The programme included exploration of common verbal and non verbal communication issues; cultural awareness and the influence of cultures on working practices; and the human factors impact in stressful situations. The feedback on performance was shared with the clinical supervisor and informed development of an individualised PDP. Participants provided evaluation of the induction process.

The programme has been piloted with 12 international training fellows and trust doctors in Intensive Care.

Results
• 100% recommended the course to others
• 100% felt their skills had improved
• 100% rated the simulation of clinical scenarios as excellent and felt more training involving simulation would be beneficial
• The feedback provided on performance has allowed tailored PDPs to be developed which clinical supervisors have reported to be helpful
• The programme has been developed to include short introduction to the educational processes including workplace based assessments

Discussion and conclusions
The programme has been well received and has provided a useful early guide on the learning needs of the participants. This has allowed tailored PDPs to be developed. The use of simulation in the programme is particularly appreciated by the participants but is labour intensive. We believe the advantages of the programme make the faculty time a worthwhile investment. We intend to develop the programme further by providing a series of short teaching sessions containing underpinning knowledge to support those non UK graduates and develop a buddy system to provide ongoing support. Following further piloting, it is hoped to roll the programme out across the Trust in a broader range of specialties.

¹ Non UK qualified doctors and Good Medical Practice: The experience of working within a different professional framework, General Medical Council April 2009 accessed 29 January 2013
Student Use of Pediatric Neurologic Exam Website during the Pediatric Clerkship

P Larsen

P Larsen, University of Nebraska College of Medicine

Background and Purpose
An important goal during a pediatric clerkship is to learn child development which reflects the maturation of the brain. It is also very important to understand brain development when preforming and analyzing the pediatric neurological examination. To help students learn the key elements of development and the pediatric neurological examination, a website was developed using video movies of the examination. This website consists of 150 short (less than 2 minutes) video clips demonstrating the exam in the newborn and at 3, 6, 12, 18 and 30 months of age. The students are introduced to the website in the first year neuroscience course then asked to use the website during their 3rd year pediatric clerkship. This paper reports the utilization of this learning tool by the students.

Methodology
During the 3rd year pediatric clerkship, the students are given a lecture overviewing the website and inviting them to use the website during the clerkship. The site has open access (URL http://library.med.utah.edu/pedineurologicexam/). Nine clerkship groups (18-22 students per group) during 2010-2012 were surveyed at the end of the clerkship concerning their use of the website. The survey asked if they used it and if so how helpful it was to them. If they didn’t use it, they were asked the reasons why.

Results
33% of the students (59/182) used the website during the clerkship. Of those students, 98% agreed or strongly agreed that the website was helpful. For those students that didn’t use the website, the main reasons were lack of time and the use of other resources to learn the material. Students’ written comments will be presented.

Discussion and Conclusions
The website was a valuable tool for learning development and the pediatric neurological examination for those students that used it. If the students had been required to use it and were tested on it, the use would have been much greater. Limitation of time was the main reason students didn’t use it which reflects the time pressures the students have to deal with. A shorter version of the website could be helpful. Because of the way the website is constructed and indexed it is also a valuable resource for student review. The website is complete and detailed enough that it can also be used in residency training programs. The website’s videos can be downloaded and repurposed by educators that want to use them in their own educational activities.
Understanding the expectations of general practitioners of a histopathology service for minor surgery

PW Johnston, I Onyekwe, GP Stark

PW Johnston, Consultant Pathologist, NHS Grampian, Aberdeen Royal Infirmary, Foresterhill, Aberdeen, UK, AB25 2ZD

Background
General practitioners (GPs) in the UK carry out significant numbers of minor surgical procedures in the community, in line with NHS policy. Many of these procedures result in the production of specimens that best practice guidance indicates require histopathological assessment and diagnosis. This work constitutes variable but substantial proportions of histopathology department workloads. Despite this, however, in Grampian, there is little or no formal interaction between histopathologists and GPs about the interpretation of specimens and the management of the patients from whom these specimens originate. We describe a qualitative study that explored what NHS Grampian (NHSG) GPs expect of the local histopathology service and the reports it generates to help the service enhance communication and mutual understanding with GPs about patients.

Methods
The NHSG Pathology department database provided names of 15 GPs sending >70 specimens (2009-12). These GPs were approached and 13 agreed to take part in a semi-structured telephone interview; 2 further GPs volunteered participation. These were carried out by the researcher (IO) to a pre-designed format with questions agreed as relevant and appropriate. Conversations were noted manually to form a database of responses which were then allocated to themes as grounded theory indicates. Emerging ideas were analysed and condensed to provide a basis for further consideration. As this was an educational quality improvement project, no formal ethical approval was required, however, GPs gave verbal consent to being questioned and confidentiality of response was maintained.

Results and Discussion
The conversations with all 15 GPs interviewed formed the database for the study. Fourteen GPs were in routine practice and one continued with minor surgery part time. A range of expectations of histopathology reports emerged but all sought the nature of a lesion, diagnosis and excision. “Plain language” was preferred with some seeking only a “bottom line”. Most GPs valued reports highly as crucial to patient management, providing reassurance and back-up. Turn-around time was felt to be too long, necessitating phone calls to obtain results. The introduction of electronic reporting would be welcomed by most GPs in preference to paper-based versions. Many GPs felt that they would benefit from the opportunity to discuss cases regularly with pathologists and from focused CPD on skin pathology. This project has provided information relevant to histopathologists and GPs about their working together, mutual education and how they do, and might, communicate to improve patient care.

References
Curriculum Planning
Exploring Medical Students’ Suggestions Regarding the Implementation of the Medical Leadership Competency Framework at the Undergraduate Level

S Murugesu, T Quince, J Benson

S Murugesu, University of Cambridge

The 2010 Health White Paper, *Liberating the NHS*, confirmed the importance of the development of leadership and management skills for doctors. The new architecture for the NHS will require certain doctors to take unprecedented financial and managerial responsibility for their actions.

The GMC supported the development of the UK-wide Medical Leadership Competency Framework (MLCF). The MLCF is a tool intended to develop training curricula from undergraduate to specialist level. The Framework has been shaped by literature review, comparative analysis of other leadership competency frameworks nationally and internationally and extensive consultation with a wide array of stakeholders. The framework comprises 5 domains: ‘Personal Qualities’, ‘Working With Others’, ‘Managing Services’, ‘Improving Services’ and ‘Setting Direction’. Although outlining expected behaviours of ‘competent doctors’ the framework does not provide specific learning objectives in terms of knowledge, skills, attitudes and expertise at undergraduate level.

In order to inform the development of a leadership and management strand within the undergraduate curriculum the University of Cambridge has undertaken a qualitative investigation into medical students’ attitudes towards the MLCF. Each of the 5 dimensions of the MLCF has been the subject of a focus group discussion. For each dimension undergraduate medical students have been asked to consider the following:

- learning outcomes
- content to achieve those outcomes
- teaching and learning methods
- form of assessment
- factors facilitating and inhibiting delivery and assessment

The poster describes students’ attitudes towards one of the five dimensions “Setting direction”. Although conducted in only one medical school the informal peer-led focus group comprised contemporary medical students with a broad gender balance. The study provides evidence for curriculum planners: students recognise the importance of leadership and management and are supportive of its inclusion in the curriculum. However their support and enthusiasm is conditional on relevance and delivery.

Given the support for the MLCF by such influential regulatory and professional bodies, the MLCF is thus used here as a template around which to seek medical student views. This project seeks students’ views, the key stake-holders, to use the MLCF to create an appropriate strand of the medical curriculum. The focus of this piece of qualitative research is the 5th domain ‘setting direction’; generating ideas for possible learning outcomes, teaching methods and assessment. The findings will contribute to the MLCF becoming a viable and useful element of the undergraduate medical curriculum.

References
Complementary and Alternative Medicine (CAM) and the UK medical curriculum

G Adan, A Aslam, W Khurshid, S Sashittal, W Lee

G Adan, 4th Year Medical Student, King’s College London School of Medicine, London, United Kingdom

Background and Purpose
The General Medical Council’s “Tomorrow’s Doctors” states that students should, “demonstrate awareness that many patients use complementary and alternative therapies, and awareness of the existence and range of these therapies, why patients use them, and how this might affect other types of treatment that patients are receiving.”1 Certain CAM practices have been found to be ineffective or harmful2, and in 2010 the UK Parliament’s Science and Technology Committee recommended the current provision of publicly funded homeopathy should be discontinued because it is ineffective3. It is therefore important for CAM teaching at medical schools to address the topic critically and in keeping with the above guidance. There is currently no evidence regarding the nature of CAM teaching in UK medical schools. This study aims to investigate the nature of any CAM tuition in UK medical schools, the modalities used, whether this tuition is part of the core curriculum. Also, we aimed to establish whether the teaching was about CAM or of CAM.

Methodology
We carried out a systematic examination of the websites of all the UK medical schools to establish any mentioning of CAM. We also produced an anonymous electronic questionnaire about CAM teaching at medical school, placed it on the web and promoted it via Twitter. The participants were asked whether they had any teaching of CAM and which year and modality they had been taught it. They were also asked whether CAM modalities were taught ‘as fact’ or more critically.

Results
The number of distinct clinical courses offered by the 32 UK medical schools was 47, of which 41 provided some course details online. Of these 41 courses, seven made some mention of CAM within their documentation and one mentioned that CAM formed part of the core curriculum.

The fraction of students in each medical school reporting any CAM teaching increased from 45% (before 1999) to 74% (after 2005) (P<0.0005) but the degree of over-interpretation of the GMC guidance increased only non-significantly over time (P=0.057). There was no relationship between medical school ranking and degree of over-interpretation of GMC guidance.

Discussion and Conclusions
Over-interpretation of GMC guidance about the teaching of CAM at medical schools is not rare. Given the probable active and passive dangers of uncritical recommendation of CAM we suggest a need for regulatory attention to CAM teaching at UK medical schools.

References
Re-booting the Duke-NUS Graduate Medical School’s Capstone Course

TK Tan

TK Tan, Dept of Anesthesiology, Singapore General Hospital, Duke-National University of Singapore Medical Education, Research and Evaluation

Background and purpose
The Capstone course, conducted during the entire final month of the medical school course seeks to tie together key learning objectives, allowing students to demonstrate skills learnt during medical school years, thereby preparing them for working life as house-officers. Issues such as relevance, boredom / poor attendance and lack of formal assessment plagued Capstone. The new course director felt personal impetus to improve it based on feedback from graduating students’ and graduates. Principles of ESME (Essential Skills in Medical Education) were applied to revamp the course.

Methodology
This action research project utilises formal student (incumbent and graduated ), faculty feedback assessment to gauge the value of topics taught, their relevance, how well it was taught and how it could be improved. Capstone’s existing curriculum was then reviewed and reformatted into a relevant, dynamic four week compulsory course, with clear learning outcomes.

Results
The revamp was approached by engaging stakeholders (students, faculty) when evaluating Capstone’s curricula. The objectives, learning outcomes and assessment method of Capstone, with the schedule of topics were posted on the student portal in advance. To improve attendance, Capstone was moved to the month prior to Graduation Ceremony, thus removing distraction from final assessments and anxiety of Residency matching. This revamped course, emphasising educational principles of student feedback, activity, individualisation and relevance (FAIR), aims to equip the students with theoretical clinical knowledge, life skills on good doctoring, psychomotor skill enhancement such as airway management, communication skills using standardised patients. Systems based practice discussions are incorporated so that students graduate as doctors who are aware of role of the wider medical and support community, and not practice medicine in isolation. Some topics were omitted or streamlined to make effective use of limited time and prevent boredom. Faculty were introduced to, and encouraged to use TeamLEAD. This hallmark educational tool is familiar to the students. Emphasis is based on teamwork to ‘ learn, engage, apply and develop’, instead of didactic classes. Previously, student performance and faculty effectiveness were not assessed. With the help of a medical educator, a system of assessment will be implemented.

Conclusion
Revamping Capstone while guided by ESME principles help eliminate components that do not withstand scrutiny of Capstone’s objectives. Robust students/faculty feedback/assessment and gauging the participants’ expectations are invaluable for improving the course. Feedback to faculty help align their pedagogical techniques with that of Duke-NUS. The success of this revamp will be assessed based on experience of this class.
Feedback
Using narrative to understand the impact of feedback upon medical students

L M Urquhart, C E Rees, J S Ker

L M Urquhart Centre for Medical Education, 484 Perth Road, Taypark House, Dundee, DD2 1LR

Background and purpose
Narratives are events perceived by the speaker as important and are intertwined with and shaped by the emotions they evoke (1). They can be employed as a research tool to understand the lived experiences of the narrator. Recently there has been a paradigm shift within feedback research, from improving the delivery of feedback, towards understanding the perspectives of feedback recipients (students). Whilst there have been recent important publications about the student perspective in the feedback process none have employed narrative interviewing techniques (2, 3). We employed a narrative technique as it allows for analysis of not only what is said but also how it is said giving new insights into students’ lived experiences of feedback.

Methodology
Focus groups were held at 3 UK medical schools. 53 students participated in 10 focus groups and 3 individual interviews. Students were asked to share their stories of experiences of feedback at medical school. These were audio-recorded and transcribed. The transcriptions were coded using Atlas Ti software for both what the students said (content) and how they said it (process) using Framework analysis (4). In particular, we coded for metaphoric, emotion, and pronominal talk and laughter.

Results
Students shared 352 personal incident narratives including 134 positive, 178 negative and 40 neutral stories. In the negative narratives students used metaphors of war to describe their feedback experiences whilst metaphors within positive narratives conceptualised feedback as precious and rare. Students frequently used laughter within their narration. The laughter was most commonly used for coping during telling emotionally difficult narratives but was also used for demonstrating common experiences within the group. Students typically used the inclusive pronoun “we” to describe their relationship with the feedback provider in positive narratives, compared with the adversarial “they” in negative experiences. Narratives were full of emotional talk for example “upset”, “horrific” and “saddened” in negative narratives, compared with “happy”, “brilliant” and “positive” in positive narratives.

Discussion and conclusions
Through employing a narrative interviewing technique and analysing students’ talk we were able to understand the impact of feedback upon students and why experiences proved to be positive or negative. Our analysis of how the students narrated these experiences gave a deeper insight into the emotional legacy of these experiences and how they conceptualised them than simply what they said. We shall give examples of these narratives, and our analysis of them, during our presentation at ASME along with educational recommendations.

References
International Medical Education
The virtual elective

M Carroll, E Tillson, D Mlemia, G Dreyer

M Carroll, Centre for Medical Education, Barts and The London Medical School, London E1 2AD, UK

Background and Purpose
Medical students should be culturally sensitive, computer-literate individuals able to take a global perspective on their education \(^1\). Many undertake an elective in a developing country in order to gain experience of healthcare delivery in a resource-limited setting. Although at Barts and The London Medical School we give our students written advice on electives, they might also benefit from prior exposure to the reality of medicine in a developing country. We therefore arranged a virtual elective by electronically linking a clinical student in London with one in Blantyre, Malawi in a pilot project that benefited both.

Methodology
Funding from the London medical school allowed a laptop computer and internet-enabled ‘dongle’ to be delivered to Malawi. Two tutors (MC, GD), one at each medical school, facilitated the project. Over the course of Summer 2012 the two students made electronic contact via Skype, internet-based text messaging and email. By exchanging information, they compared and contrasted in their respective countries: clinical education; healthcare provision; the major burdens of disease; and the experience of selected patients with chronic kidney disease (CKD). Each student took histories from several patients in their respective hospital setting.

Results
Overall the virtual elective project was successful. Information exchange by the students using Skype sometimes failed owing to technological problems; however, other electronic means made acceptable substitutes. The students discovered that medical education was closely comparable as between Britain and Malawi, but healthcare provision and the disease burden differed markedly: communicable diseases predominate in sub-Saharan Africa, whereas lifestyle-related conditions feature highly in London. They are currently compiling the resulting information into a web-based ‘Virtual Patient’ available to both medical schools and illustrating aspects of CKD in the two countries.

Discussion and Conclusions
The ‘patient journeys’ in the two countries brought into stark contrast how personal and clinical resource limitations impact the experience of the condition for the individual and their family. The British student gained insight into the medical setting of a developing country that will benefit her future elective planning. The project will likely be sustained as a student-selected component in MBBS Year 5 in London coupled to the research project in Year 4 in Malawi. One advantage of the virtual elective is that the emphasis of the arrangement can be changed each year by varying the chosen clinical condition.

Reference
An investigation into the level of practice undertaken by medical elective students in a low-resource setting and the factors by which it may be influenced

D Royan

D Royan, International Health BMSc student, College of Medicine, Dentistry & Nursing, University of Dundee (UoD)

Background and Purpose
Despite medical students from the United Kingdom spending an estimated 350 years of elective time each year in developing countries [1], many observers feel that medical students require greater preparation for the ethical issues they are likely to encounter [2]. It has been speculated that this lack of preparation may contribute to cases such as those identified by Niemantsverdriet of medical students practicing far beyond their level of competence whilst on their elective [3]. This project aims to investigate whether a culture exists between medical elective students in low-resource settings of medical practice beyond a level which would be considered acceptable in their home setting, and to investigate the factors which may contribute to the development of such a culture.

Methodology
This project will be a qualitative study, using the methods of ethnographic observation and semi-structured interviews. Elective students will be observed on wards in the Queen Elizabeth Central Hospital in Blantyre, Malawi over a 4 week period to gain an understanding of the level of practice undertaken by these students, while interviews will be carried out with them to elicit their opinions regarding the factors which influence their practice. It is hoped that the results will be used to develop a module to aid preparation for UoD medical elective students.

Results
Results from both the observation and interview phases will be presented, along with any recommendations for possible changes to elective preparation.

Discussion and Conclusions
This study is expected to provide some clarity on the reports of students regularly practising at a level beyond their competency whilst on their electives in low-resource settings, and allow discussion with participants of the factors affecting their practice.

References
Incorporating critical appraisal into the medical student curriculum amongst intercalating International Health BSc students

A Hawkins, K Grewal, K Jones, M Ellis

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

**Background and Purpose**

Critical appraisal skills form a key part of the work of clinical practitioners and health-based researchers alike. Health-based journal clubs have long been used as a means of improving skills in this area\(^1\). There is evidence that critical appraisal teaching improves participants’ knowledge, but there is a lack of robust evidence in this area\(^2\). The aim of this study was to assess the impact of a critical appraisal programme on the learning of students on the intercalated International Health BSc course at the University of Bristol.

**Methodology**

We collated feedback from students attending critical appraisal sessions between October 2011 and March 2012. Two Foundation Programme trainees delivered 10 sessions in total to intercalating International Health BSc students (n=9-17); each session lasted approximately 1.5 hours. The sessions focused on providing a structure for critical appraisal; students were sent the paper by email the previous week so they could read it in advance. At the end of each session, students were asked to complete a feedback questionnaire consisting of Likert scales (from 1-5, 1=strongly disagree, 5=strongly agree) and free text boxes. Descriptive statistics and qualitative analyses were used.

**Results**

The overall mean scores for the extent to which the sessions were at the appropriate level and relevant were both 4.6/5. The scores for the organisation of the programme, and the extent to which the presenters seemed well informed and encouraged audience participation were 4.7/5. The overall score for the extent to which students thought the session was of high quality was 4.7/5. The individual sessions that received the highest overall feedback were the obstetric fistulae (4.8/5)\(^3\), global burden (5/5) and exclusive breastfeeding promotion (4.8/5)\(^4\) sessions. Key themes in qualitative analysis were that the students enjoyed the interactivity and discussion in the sessions. Students found that the sessions improved their ability to critically appraise a paper and appreciated the relevance of this skill.

**Discussion and conclusions**

Implementing a specific critical appraisal unit in the Global Health BSc programme was a successful means of teaching critical appraisal which was valued highly by the students. Such programmes can provide transferable, highly useful skills for students not only during their global health studies, but throughout their medical career.

**References**

A pilot study to evaluate an ultrasound training programme for midwives working on a labour ward in an urban hospital in Zambia

A Hawkins, CL Dunlop, K Jones, T Abdelrazik, C Rozette, S Chinkoyo, V Cheston

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

**Background and Purpose**

Ndola central hospital (NCH) is one of five tertiary referral hospitals within Zambia, receiving complicated maternal referrals from 23 rural clinics. It was hypothesized that use of a portable ultrasound machine in the labour ward could reduce morbidity and mortality for women and neonates\(^1\), as most women presenting in labour had not had an intrapartum scan. A training curriculum and two week delivery plan for obstetric ultrasound were created using knowledge of NCH facilities, staff and cultural preferences. The aim of this study was to demonstrate the acceptability of an ultrasound training curriculum designed for midwives on a labour ward in a developing country.

**Methodology**

A curriculum for training in basic labour ward ultrasound skills was designed to meet the needs of midwives in the developing world. A prior needs assessment of the labour ward at NCH highlighted the learning needs\(^2\). The core skills were adapted from a similar training programme\(^3\) and standard textbook in the UK\(^4\). The programme has the intention of reducing maternal and neonatal morbidity, working towards The Millennium Development goals 4 & 5. The 2 week training programme design was evaluated by 12 midwives working at NCH in Zambia, who were asked to complete a feedback questionnaire. All the midwives held senior positions and had a similar level of prior experience.

**Results**

All 12 midwives expressed a desire to complete the training programme to improve their knowledge and for career enhancement. All midwives felt that ultrasound training would reduce maternal and neonatal morbidity/mortality. They expressed need to diagnose foetal viability, multiple pregnancies, foetal presentation, and placental site. Four midwives (33%) felt that the course was not long enough to gain basic competency and one (8%) stated that a new skill would increase her work load. All midwives agreed to support a comprehensive training programme for staff and to audit of maternal and neonatal outcomes.

**Discussion and Conclusions**

This pilot study has demonstrated that the 2 week labour ward ultrasound skills curriculum is acceptable to senior midwives working in a developing country. A comprehensive training programme for all midwifery staff will now be implemented and maternity outcomes audited.

**References**

Mentoring
Mentoring foundation year two doctors through anaesthetic specialty training applications: a pilot study

F Mazzola

F Mazzola, CT1 anaesthetic trainee, Chelsea and Westminster Hospital, London, UK

Background and Purpose
Application to anaesthetics specialty training in the National Health Service (NHS) is co-ordinated by the West Midlands Deanery. Information about deaneries is available from their websites, with some, such as The London Deanery, divided further into schools. This large volume of information can be overwhelming and difficult to locate. There is little interaction between anaesthetic departments and foundation doctors unless they have undertaken a foundation year rotation in anaesthetics or Intensive Care Medicine. This creates a barrier for foundation doctors seeking information on how to apply to anaesthetics. Mentoring programmes are acknowledged to be beneficial at all stages of medical training¹, with a focus placed on early mentorship² but there is a lack of information on mentoring in anaesthesia³. This project aimed to deliver a mentoring programme to foundation year two doctors applying to anaesthetic specialty training, assess its success and potential for development on a bigger scale.

Methodology
Foundation year two doctors applying for anaesthetic training in one hospital were recruited by a presentation at scheduled lunchtime teaching and a follow up email to all foundation year two doctors. Eight doctors replied. Four group sessions were run over four months of the application period with one anaesthetic trainee mentor covering the topics ‘What to do before applying’, ‘How to prepare a CV’, ‘Putting together a portfolio’ and ‘Mock Interview’. Variable numbers of doctors attended each session due to work commitments. Six doctors returned feedback forms.

Results
All six doctors had completed a foundation rotation in anaesthetics or Intensive Care Medicine. 100% ‘strongly agreed’ that the sessions had been helpful to them and would recommend them to colleagues. 100% ‘agreed’ or ‘strongly agreed’ that the sessions had provided them with new information. 50% were ‘uncertain’ as to whether they would have preferred one to one sessions, with 33.3% disagreeing with this statement.

Discussion and Conclusions
This project demonstrates the value of themed group sessions in preparing foundation doctors for anaesthetic speciality applications. Despite previous foundation experience in anaesthesia or Intensive Care, all doctors found the experience extremely useful and would recommend it to others. The lack of enthusiasm for one-to-one sessions suggests a classic mentoring approach would be inappropriate but that group mentoring should be considered on a wider scale to make anaesthetic application information more accessible.

References
Multi-professional Education
Developing a multi professional approach to teaching and learning about Gender Based Violence (GBV)

R Riddell, S Joseph

R Riddell, University of Aberdeen

Background and Purpose
Gender based violence is an important public health issue throughout the world. It affects numerous individuals of all classes, ethnic background and religion. It may be regarded as a neglected area of medical undergraduate education. This area of work has been prioritised in Scotland. There is considerable overlap between GBV, child protection and protecting vulnerable adults. Over the last two years there has been work to develop the teaching of gender based violence to promote awareness and understanding of the topic; and also develop a multi-professional approach to the delivery of this teaching.

Methodology
This is a continuing area of curriculum development. The teaching is during the final year of the medical course at the University of Aberdeen. There is a dedicated session during the Professional Practice Block (PPB). The teaching is supported by Grampian Police and colleagues from a variety of medical and nursing backgrounds.

This teaching is supported by the Protection in Interprofessional Education Group (PIPE). This group meets at least quarterly and involves both Aberdeen Universities and Grampian Police. This ensures that medical, nursing, pharmacy, social work and police colleagues are involved in planning and delivery. Work continues to explore how students from all these disciplines can be involved in future learning opportunities.

Results
The sessions are evaluated as part of the University’s ongoing evaluation framework. In addition to this feedback has been provided by small group participants and tutors.

Discussion and Conclusions
There has been good support to develop the teaching of GBV across all years of the curriculum. The challenge is to provide this teaching by a multi professional team using a combination of interactive lecture, filmed material and small group work. Initial work has focussed on medical students in their final year. The PIPE group are exploring the logistics of continuing the multi professional provision of tutors to a multi professional group of students. There is agreement that GBV and Public Protection are areas where multi professional practice is important in clinical and multiagency day to day work. It is felt that this reality provides rich learning opportunities for many learners and will enable them to function effectively as partners in their work in supporting and protecting vulnerable individuals throughout their careers.

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Deteriorating Patient Management (DPM): an incubator for interprofessional learning (IPL) in the acute clinical environment

N Roberts, A Little, K Riddell, J Martin

N Roberts, Senior Lecturer, Medical Student Programs, Eastern Health Clinical School, Monash University, Melbourne, Australia

Background and purpose
Evaluation of a pilot medical student rotation in DPM identified limitations on the breadth of learning. In spite of a balanced learning plan, students and medical supervisors engaged more with the Medical Emergency Team (MET) response to clinical deterioration than with ward-based monitoring and communication processes. A multidisciplinary group reviewed the pilot experience. An IPL approach was proposed that could address the imbalance in medical student experience and in addition meet nurse education objectives.

While the concept of IPL for health professionals is generally supported, few educators manage to make it work sustainably. As long as interprofessional working remains the exception, educators and clinicians will cling to the clarity and comfort of discipline-specific learning pathways, carefully constructed within a community of like-minded souls, reluctant to throw in their lot with unfamiliar others who have their own pathways, clinical and pedagogic priorities and scheduling imperatives.

Methodology
Qualitative evaluation of the pilot medical student rotation identified areas where the learning objectives were not met. The multidisciplinary review proposed an IPL program in DPM for nursing and medical students. This program was implemented in 2013 and is being evaluated by document analysis and analysis of feedback from focus groups of participating staff and students.

Results
Preliminary data are reported indicating that criteria for success of the IPL rotation are being met. Achievement of learning objectives for both medical and nursing students is high. These results support continuation of the approach.

Discussion and Conclusions
In our health service the DPM and MET are established examples of interprofessional care teams. Nursing and medical professionals in these environments choose to share information and cooperate closely in their daily work because it gets the job done, not because it is externally driven. Rather than being blurred, the professions’ awareness of their different contributions, and the boundaries between them, seem strengthened by working together. Such settings may allow IPL to present clear benefits and little threat.

It is anticipated that the establishment of a successful IPL program will act as a motivational model within the hospital for the cultural and logistical change required to extend interprofessional working and learning.

Reference
1 Thistlethwaite, J., Nisbet, G. Interprofessional education: what’s the point and where we’re at … The Clinical Teacher, 2007, 4: 67-72
New Technologies
Peer to peer learning in the 21st Century

P Fisher, B Kahai, J Sutcliffe

P Fisher, Clinical lecturer, Department of Community Based Medical Education, University of Manchester

Background and Purpose

In recent years a number of trends have been identifiable in the educational literature. Amongst these:

- There is a growing body of evidence to support peer-to-peer teaching and learning as a useful tool.
- Students are increasingly outstripping their tutors in their ability to use technology to access learning resources.

Wanting to raise awareness amongst our students of the effects of social inequalities on health, rather than ask students to write a literature review, we decided to pilot a scheme to allow students to author an e-learning package.

Methodology

Third year medical students at the University of Manchester were introduced to a software package that allows development of e-learning materials. The package allows for incorporation of text, pictures, video and audio, true/false questions and short answer questions with model answers, as well as allowing hyperlinks to web resources. Tutors were available to offer ideas as to possible source material to be included, and to comment on and guide the process. Students also took part in small group teaching around issues affecting access to health care and were encouraged to incorporate ideas from this in their materials. Students were marked on their reflections on the process rather than on the package of e-learning they produced.

Results

Students gained a valuable insight in to both the role of social determinants of health and the use of technology in teaching. The resulting e-learning package features fictional characters living in the city of Manchester, bringing the issues discussed closer to the lives of the students. Key features include use of colour to highlight important points, use of audio description and brevity of paragraphs to maintain interest in the reader. Students’ reflections identified some of the key principles of adult learning as described in the literature, including the need for teaching materials to be relevant and the link between assessment and learning. Tutors gained a valuable insight into how to capture the attention of generation Y.

Discussion and Conclusions

We believe that development of e-learning materials by students can play a role in ensuring learning resources are up to date and appropriate to the audience. Furthermore the process of developing such materials is in itself a valuable learning experience for tutor and students alike.

References

Developing and open eLearning community in a social network

AM Cunningham

Background and Objective
Online social networks allow educators to develop connections with others who are interested in the same topics as themselves. Closed communities which are not integrated with existing social networks can be difficult to develop and sustain. I saw the opportunity to develop a community for students, faculty and administrators interested in the use of technology in medical education.

Progress
I chose to host the community as a LinkedIn group as it is an existing social network which is related to online professional presence. The community is open and all content is visible to anyone who is online. Membership of the group or LinkedIn is not necessary to be able to access the discussions. However, only group members can start new discussion threads.

Today, after one year, the group has 488 members and this is growing steadily. Using LinkedIn analytics (which will be presented in the session) we can see that members are mainly from within the UK and in higher education. Medical students and educators from other fields in health science education are active participants. Those who develop new technologies, including vendors, are also able to take part in the group. On average 3 new discussions are started, and 20 comments posted to the group each week. Members have also used the community as a way of organising face to face meetings and get-togethers at conferences.

Advantages and disadvantages of an open eLearning community
The public nature of the group means that discussions can easily be shared with other social networks such as Twitter to increase participation and dissemination. Some of the most popular discussions, for example around the use of tablets in medical education, have been used as resources by other groups as they present fresh perspectives. The barriers to participation are lowered by seeing the nature of discussions before signing up to join the community. However, some members may be inhibited by posting publicly. I will address how members feel about these trade-offs in the presentation.

Future
The community is now self-sustaining. It requires very little moderation because of LinkedIn features. Hopefully it will continue to grow and be a resource to others interested in the use of technology in medical education. This presentation aims to help other educators make decisions on the choice of location and degree of openness to be utilised in an online community.
Creation of a clinical examination video as a learning and revision resource for medical students

M Masiello, A Hawkins, V Taylor, AE Stanton

M Masiello, Clinical teaching fellow, University of Bristol Academy, Great Western Hospital, Swindon, UK

Background and purpose
Clinical examination skills are often taught during medical students’ first clinical placements, either by clinicians in a ward environment or with actors. This training may be supplemented by texts and other resources such as video. Videos are a useful resource for learning but are often aimed at medical students first learning examination techniques. They have long been acknowledged as a resource which can be as effective as personal demonstration to teach physical examination. We are producing a series of clinical examination videos for final year medical students, demonstrating examinations in real time with accompanying information explaining important clinical signs. The aim of this study is to evaluate the utility of these video resources as an adjunct to final year studies.

Methodology
We created a video of the clinical examination of the cardiovascular system for our target audience of final year medical students. There is an initial ‘run through’ of the examination followed by a version with text, images, and voiceovers highlighting the more complex aspects of the examination, and accompanying explanations. The video was reviewed by 35 final year medical students to assess its utility as a revision tool. Students gave feedback using a scale from 0 to 10 (from not at all helpful to extremely helpful) to rate how helpful they thought the video would have been at the start of their final year as learning and revision resource. They also provided qualitative feedback in the form of ‘free text’ responses.

Results
The video received a mean score of 8.57 (on a scale of 0 to 10) from 35 respondents, standard deviation of 1.44. Qualitative analysis revealed that this was a useful resource for revising and correcting techniques, especially since they had very little exposure to general medicine the previous year. They particularly valued the attention given to explaining signs such as murmurs and the jugular venous pressure; this was the aspect that the students commented differentiated this video from others that they had seen.

Discussion and conclusions
Our initial evaluation of this resource has suggested that our video is a helpful learning resource for senior medical students. Its key features are the fluent style and clear explanations of clinical signs. Based on the success of this video we will be creating other examination videos in a similar style for our target audience for the other body systems.

References
A conference started by a tweet…

TL Lewis, N Bedi, AM Cunningham, SC Wing, WK Wong, J Walker, E Wallitt

TL Lewis, Medical Teaching Centre, University of Warwick, Gibbet Hill Road, Coventry CV4 7AL, UK

Background and Purpose
Online networks offer medical educators, academic researchers and clinicians a novel opportunity to collaborate effectively removing traditional geographic barriers. This paper presents a report on the organisation of a novel two day conference providing software and coding skills for doctors which was entirely organised using online resources. All healthcare professionals are expected to competently use a range of computer systems yet very few receive formal information technology (IT) training to a professional standard. The current lack of IT training for healthcare professionals prompted a tweet, which would serve as the launch point for The Digital Doctor conference.

Methodology
Seven organisers responded to the tweet suggesting a course to improve digital literacy amongst clinicians. An online project management application (Basecamp) was set up and used as the central hub. Organisers could manage and keep track of project discussions, files, and events. A number of podcasts were recorded in advance of the conference utilising remote tele-conference software. As the conference drew nearer, a number of video-conference meetings were held. At no point did any of the organisers physically meet until the morning of the conference. After the event, each organiser gave feedback regarding the online collaboration process and delegates asked to complete an online feedback form.

Results
The conference successfully ran over two days in December 2012. 69 delegates attended both days of the conference. Participant feedback was positive, 40 (58%) of the attendees completed the entire online feedback form, 93% of whom felt that the conference was ‘very well organised’ or better.

Organiser feedback highlighted the following key points regarding online collaboration:
Advantages:
• Use of project management software ensured all organisers were informed
• Do not need to organise time-consuming meetings for short discussions.
• Discussions and planning can occur asynchronously
• Organisers from across the UK were able to pool their expertise.
• Cost efficient as meeting face to face to organise the event would have been prohibitive.

Disadvantages
• Couldn’t always ensure 100% attendance to online meetings due to technical issues
• Potential for misunderstanding is increased

Discussion and Conclusions
This paper shows that it is possible to organise a national conference remotely utilising a range of online project management applications without adversely affecting the overall outcome. It also highlights the continuing need for further formal IT training at all stages of a medical career. We plan to continue to develop The Digital Doctor concept with a future conference.
Medical teachers’ attitudes towards simulation-based medical education in Saudi Arabia: opportunities and challenges

S Ahmed, F Al Sennani, M Ahmed, M Zafar

S Ahmed, Lecturer, Clinical Skills Department, Faculty of Medicine, King Fahad Medical City, Riyadh, Kingdom of Saudi Arabia

Background and Purpose:
Quality health care and patient safety are the key aims of Saudi government and this demands the medical education curricula to train the future professionals with necessary skills without putting patients at any risks. Simulation-based medical education (SBME) replaces real patient encounters with scenarios and role-plays with live actors/virtual reality patients. It provides a safe, risk-free yet powerful approach to medical education. Saudi Arabian universities, like many others around the world, are integrating SBME into their programmes. In this they are guided by research that suggests the efficacy of SBME. However, there is little empirical work to help guide this process or to identify the generic and contextual barriers faced by medical teachers as they adopt this innovation.

Methodology
This study guided by tripartite attitude theory, used questionnaire and focus group discussions to elicit the attitudes of medical faculty members in to SBME. The 29-item questionnaire was developed for this study, piloted with twenty teaching faculty and assessed for test-retest reliability. It was administered to a sample of 154 of the teaching staff of 350 in the four medical institutes of Riyadh, Saudi Arabia. Two groups, each of ten faculty members, participated in follow-up focus group discussions (FGDs).

Results
Results from the survey and FGDs will be presented as well as implications and some directions for the implementation of SBME in Saudi Arabia.

Discussion and Conclusions
Gender; age, teaching experience (including experience of simulation based learning); curriculum background; levels of medical education; and availability of technology were some of the factors that related to the teachers’ attitudes. Some identified advantages of SBME were: patient safety; helps in assessing performance of students; improves team work, lowers cost, improve learning outcome and students build self-confidence and learn to communicate with patients before exposure to real patients. Barriers were: lack of awareness of simulation methods; time constraints and past stressful experiences in using SB teaching strategies. Eighty percent of respondents identified a need for formal training in SBME. Implementation of a simulation based medical curriculum may benefit both from taking teachers’ preferences into consideration and from available empirical evidences for future growth of SBME in Saudi Arabia.

References
Experience with a novel virtual patient authoring system used to facilitate undergraduate ophthalmology learning

S Khan, S Messer, A Dick

S Khan, 5th year medical student, Faculty of Medicine and Dentistry, University of Bristol, Bristol, BS8 1TR, UK

Background and purpose
Virtual patients are “Interactive computer simulations of real-life clinical scenarios for the purpose of medical training, education of assessment”1. Unlike conventional online tutorials, which use a linear design pathway to lead students through predetermined choices, the virtual patient (VP) interface uses a branched design framework with multiple pathways through a single case. This design framework has been shown to provide a superior learning platform for the user who dictates the unfolding of a case2. In addition the VP offers medical students an interactive, safe environment to engage in clinical decision-making and appreciate the potential consequences of their actions3. Despite international recognition as a valuable asset in medical education, virtual patients have had limited integration into the medical curriculums of UK medical schools4,5,6. Reasons pertaining to this include the specialist skills and labour intensive nature of computer programming required by previous VP authoring systems6. The aim of this project was to produce a VP case-based tutorial for undergraduate ophthalmology education using a new authoring system that removes the requirement for specialist computer programming skills. Our team present an experience with the new online simulation authoring system, ‘UChoose VP’.

Methodology
An interactive case-based tutorial focusing on the ophthalmological conditions macular degeneration and diabetic retinopathy was created using the ‘UChoose VP’ produced by University of the West of England (UWE) Bristol. This uses a Silverlight authoring system, virtual patient player and a web-based evaluation and management tool for each case. A 3 week clinical placement at the Bristol Eye Institute was completed to inform the pathway choices to be included in the VP simulation. A final pathway of multiple branches based on a finite list of choices was produced and multimedia was integrated at specific points for emphasis of key principles.

Conclusions
The UChoose VP authoring system provides a user-friendly, time efficient method for creating a VP simulation without the requirement of specialist skills in computer programming. The potential for integration into the medical curriculum makes this an exciting new area for medical education in the UK.

References:
Referral advice for CT Coronary Angiography (CTCA): Simple educational interventions that improve diagnostic yield

J Read, B Clayton

J Read, CT1 Doctor, Core Medical Training, Derriford Hospital, Plymouth, PL6 8DH

Background and Purpose
CTCA is widely recommended in the assessment of chest pain, but does not always provide images of diagnostic quality.¹ This might be improved by considering patient factors known to be associated with sub-optimal image quality prior to referral that are easily established by referring clinicians, including inability to lie flat, problems breath holding and difficulty in achieving cardiac rate control.² Simple educational interventions to improve referral quality were implemented to improve image capture and therefore diagnostic yield.

Methodology
A retrospective audit examined all CTCA examinations for the investigation of suspected cardiac chest pain over a 6 month period. A review of CTCA reports was performed to identify non-diagnostic scans along with reasons. Clinicians were then educated using a simple diagram-based referral tool to encourage early identification of those unsuitable for scanning. Repeat analysis of scans was then performed.

Results
Initially 313 patients underwent CTCA. 57 scans (18%) were non-diagnostic due to: absence of controlled heart rate (n=23), failure to comply with breath hold (n=21), image artefact (n=4), technical problem (n=4), no defined reason (n=5). Clinicians were educated about the importance of controlled heart rate and patient factors affecting the scans. Subsequent referrals were then analysed in two groups, those who had received brief educational intervention and those who had not. Non-diagnostic scans in the educated group were 8% vs. 11% in the group without intervention (p=0.004).

Discussion and Conclusions
Simple educational interventions around patient factors that can impact the image quality in CTCA improve the appropriateness of referrals, reducing the number of non-diagnostic scans. We have demonstrated that simple, diagram based teaching models are an effective method of educating clinicians and therefore increasing diagnostic yield and improving efficiency.

References:
Developing Dialogic e-Learning for Osteopathic Professionalism

M Dye, P Lakhani, K Green, A Stewart, F Browne, T Walker, S Roff

M Dye, Professional Standards Manager, General Osteopathic Council, London, UK

Abstract

Osteopathy as a profession is a community of practice that should also be a learning community. In developing e-learning as a medium for dialogic learning in the area of Osteopathic Professionalism, we are following the precepts of Inui (2003): “...professionalism measures will principally be useful as formative tools, a source of key information for feedback within a larger process of professional preparation.” (p.18) (emphasis in original) 1

The General Osteopathic Council regulates the practice of Osteopathy with approximately 4,700 registrants. In September 2012 the GOsC released new Osteopathic Practice Standards and Guidance. In conjunction with these, e-learning programmes are being developed to help registrants understand the Standards and Guidance, and help them to apply them to their own practice.

The e-learning programmes are a combination of written scenarios and videos of varying lengths, accompanied by quizzes based on the principles of Situational Judgement Tests. We are using the properties of Articulate to adapt these principles into formative e-learning, i.e. ‘assessment for’ rather than of learning. The scenarios have been scripted by a consensus group drawn from GOsC officers with responsibility for Regulation and Professional Standards, and an external education consultant with more than a decade’s experience of professional Fitness to Practice procedures. The learner is asked to relate the issues in the scenario to various elements of the Standards and Guidance. Feedback is provided in a 4-step process as recommended by Sargeant et al (2009) 2 in order to promote learning through reflection. Three runs of the programme are permitted in order to score a passing grade, and to be issued a certificate of completion/mastery of learning which can be submitted as part of their Continuing Professional Development requirement.

In order to enhance dialogic learning in the Osteopathy learning community we have included Likert scales in the exercises that require learners to make judgements about the severity and nature of lapses in professionalism that are depicted in the scenarios. These data are being collated and will be reviewed against similar data to be collected from experts and role models in Osteopathic professionalism to identify areas of congruence and dissonance between the learners and the experts/role models. This will guide the General Osteopathic Council and the eleven Osteopathic Educational Institutions in the UK in providing relevant learning opportunities in the future.

References

Postgraduate Education
Exploring perceptions of education in a group of UK Foundation Year One doctors

PW Johnston, P Strand, G Edgren, J Cleland

PW Johnston, Associate Postgraduate Dean, NHS Education for Scotland North of Scotland Deanery, Forest Grove House, Aberdeen, UK, AB25 2ZP

Background and purpose
Supervision of clinical education is a recurring theme of dissatisfaction among newly graduated doctors in the UK\(^1\). The place of supervision in contextualised learning is central but the behavioural, organisational and physical factors underlying this dissatisfaction have not been explored to date. The aim of this study was to explore this issue, to begin to ascertain how factors relevant to supervision are related and to start to characterise the attributes of a positive learning climate. We did so by adapting and piloting, in the postgraduate setting, a tool conceived and validated in Lund University, Sweden\(^2\) for assessing the educational climate for undergraduate medical students in clinical placements.

Methods
A group of 40 Foundation Year 1 doctors were approached during a regular formal teaching session for their consent to undertake a short, anonymous, paper based survey. Agreement for the Deanery Education Director to the survey was given. No ethical approval is required under current Scottish NHS regulations for studies of this kind. The questionnaire consisted of a series of 27 variables along with demographics. Responses were on a five point Lickert scale (disagree strongly, disagree, neutral, agree, agree strongly). Data were collated manually to a spreadsheet and analysed on SPSS using Crosstabs (Pearson Chi-Square).

Results and discussion
Comparison of responses to questions produced a picture of supervision characteristics. Well-received induction correlated with reported good supervision (\(p<0.001\)), being able to access supervision easily (\(p<0.001\)) and having supervisors that were approachable (\(p=0.001\)). Good supervision was associated with satisfactory feedback (\(p=0.006\)), feeling encouraged to participate (\(p<0.001\)) and feeling that problem solving ability was developing (\(p=0.002\)). There was no association between the type of unit (medical/surgical) and feeling welcome, included or received positively in the unit. These findings cluster around human behaviours that define warmth and engagement and support the value of the development of positive relationships between experts and novices in a supportive environment to facilitate learning. This pilot project has yielded insights into how learning climate may be assessed as a metric of good learning practice in postgraduate medicine.

References
\(^1\) General Medical Council UK: [http://www.gmc-uk.org/education/postgraduate.asp](http://www.gmc-uk.org/education/postgraduate.asp) (accessed 29 Jan 2013)
Should medicine be a postgraduate subject?

L Eddie, K Sharma

L Eddie, Undergraduate MB ChB medical student, Bristol University, England

**Background**

Medicine has historically been a direct entry degree attracting young students who would typically graduate in their early twenties and then be able to provide over forty years of service to the NHS. In the nineteen nineties intercalated degrees in allied subjects came into fashion and extended training by one year. Initially these extra training opportunities were fleeting and reserved for aspiring academics but as time has progressed, so too has the demand, with many universities now making an intercalated degree a compulsory part of the course. In 2007 Modernising Medical Careers introduced the “Gold Guide” aimed at streamlining medical career pathways, in many ways mirroring the system in America. At a similar time UK universities started recruiting more graduates to medicine and began developing graduate entry accelerated courses requiring only four years. This trend has continued to grow with 50% of all clinical medical schools now offering this option. This mirrors the American system where students complete a “pre med” degree in an allied subject before competitive entry onto a four year medical degree. The current UK medical student community allows for an intriguing comparison between direct entry and graduate entry in terms of academic success, research, career aspirations, confidence, motivation, enjoyment and happiness.

**Methods**

Structured interviews and an online questionnaire were used to elicit the different perspectives of students comparing direct entry to accelerated graduate entry in medicine at Bristol University. Students were sampled from the first and final years of training to assess whether time significantly altered their opinions. A small sample was used to quantitatively assess the difference in academic performance.

**Results**

Results from the structured interviews and the online questionnaire will be presented.

**Discussion**

There are benefits and drawbacks to both direct and graduate entry into medicine. Having the opportunity for either type only serves to increase recruitment of the best candidates and hence hopefully will lead to the best doctors being produced.

**References**


2. [http://www.medschools.ac.uk/students/courses/pages/graduate.aspx](http://www.medschools.ac.uk/students/courses/pages/graduate.aspx)
Production of an e-learning course for pre-FRCS surgical trainees – Much more than advanced MRCS content

D Pier, C Deans, E Harrison, D Dewhurst, M Begg, OJ Garden

D Pier, University of Edinburgh, Clinical Surgery, Royal Infirmary of Edinburgh, 51 Little France Crescent, Edinburgh EH16 4SA, UK

Background
After considerable success with an online course dedicated to pre MRCS surgical trainees the University of Edinburgh has established the ChM in General Surgery to prepare pre FRCS surgical trainees for exit examination and upcoming consultancy responsibilities. The advanced nature of the course required not only a change in taught content but necessitated a complete redesign of course structure and teaching methods.

Summary of work
The advanced nature of the content relating to the Fellowship of the Royal College of Surgeons (FRCS) curriculum as well as the experienced nature of the surgical trainees has led to the development of dynamic case-based discussions the progression through which is dictated as much by the trainee as it is the tutor. Trainees are required to use their own understanding and experience over and above the textbook example. Although both programmes share an innovative e-learning platform, considerable adaption was made to provide the ChM the scope necessary to teach in such a flexible manner. Both courses share their use of expert e-tutors and quality assured material.

Summary of results
Students have already voiced their appreciation for the ChM and a constantly high level of student engagement in assessed discussions demonstrates the importance the trainees place on this tutor engagement.

Conclusions
Whilst content at both MRCS and FRCS level can be effectively taught online, it should not be approached in the same manner.

Take-home messages
Adapting teaching approaches as well as content is key to engaging trainees at different stages of their training.
How well prepared do first year medical graduates from one UK Deanery feel to undertake the essential skills required by the GMC in *Tomorrow’s Doctors*?

S Watmough, T Kennedy

S Watmough, Research Fellow in Medical Education, University of Liverpool

**Background and Purpose**
In the UK, the General Medical Council (GMC) has highlighted the issue of patient safety and has published a list of skills which medical schools should prepare students to undertake before they graduate and begin working as Foundation Year 1 (FY1) doctors (1). This paper will summarise the results of questionnaires sent to FY1 doctors asking how well prepared they felt to undertake these skills.

**Methodology**
Questionnaires were delivered to FY1s in the Mersey Deanery. The questionnaires contained two main sections. They were asked how competent they felt on a number of skills with the question “Please rate your competence in the following.” The answers were given on a 5-point Likert scale, which ranged from “generally very competent” to “generally not very competent” with “generally quite competent” as midpoint. There were also free text open ended questions asking what they felt in their undergraduate course had prepared them for these skills and what they would like further training on.

**Results**
In total 149/347 (43%) F1 doctors who had graduated from a wide range of UK universities returned the questionnaire. The results were very positive with the graduates feeling at least generally quite competent and above in all of skills on the questionnaire. They felt most competent in “use of protective equipment (gloves, gowns, masks)”, “infection control in relation to procedures”, “transcutaneous monitoring of oxygen saturation”, “venepuncture”, “managing blood samples correctly”, “safe disposal of clinical waste, needles and other sharps”, “measuring pulse rate and blood pressure”, and “infection control in relation to procedures”. They felt less prepared at and wanted more training on “suturing” “wound care and basic wound treating”, “correct techniques for “moving and handling”, including patients”, “making up drugs for parenteral admission” and “dosage and administration of insulin and sliding scales.” Whichever university they had graduated from the FY1s cited specific clinical skills training, exposure on clinical attachments and shadowing as parts of their medical course which had prepared them.

**Discussion and Conclusions**
The graduates generally felt prepared to carry out the majority of skills although further training is required in some areas. Since 1993 the GMC has called for more shadowing, clinical skills training and relevant clinical exposure to prepare graduates to work as doctors. These results suggest these changes are now having a positive impact on how graduates feel prepared to practice on certain key skills.

**References**
The Use of a Generic Template to Script a Medical Simulation Scenario- will it work?

F Chowdhury, J Gosai, R Molyneux, S Pathmanathan, M Purva

F Chowdhury, Hull Institute for Learning and Simulation, Hull Royal Infirmary, Anlaby Road, Hull, HU3 2JZ

Background and Purpose
Following the Department of Health Framework for Technology Enhanced Learning, The Yorkshire and the Humber Deanery School of Medicine developed a strategy to promote the integration of simulation into educational activities to support the Core Medical Training Joint Royal Colleges Physicians Training Board (JRCPTB) Curriculum. Four Medical Simulation Fellows co-wrote the scripting for a course to help address the “step up” to becoming a Medical Registrar, now called Acute Simulated Core Medical Emergencies (ASCME).

Methodology
Four different templates including a Paediatric Template, the Anaesthetic Hull Institute of Learning and Simulation (HILS) Template and two “Storyboard” Templates were peer reviewed by the Yorkshire and the Humber Deanery Simulation Committee consisting of six Medical Consultants, one Anaesthetic Consultant and four Simulation Fellows with Medical Registrar backgrounds. Each template was trialed in Simulation Clinical Skills Facilities in five localities within the deanery with a view to standardizing the content and delivery style of the scenarios.

Results
The Paediatric Template was an excellent starting point, but difficulties were experienced in communicating SIMman programming, leading to the creation of HILS Anaesthetic template. Eight HILS medical scenario scripts were then peer reviewed by members of the Simulation Committee to find that “scenario” and “expected management” areas were difficult to deliver without losing realism. The description of specific observations at each stage did not reflect real life medical scenarios, as observation trends would be slower. When comparing the four templates (Paediatric, HILS and two “storyboard” templates) already in use within different localities in the deanery, it was found that not only did a tick box SIMman set up help, but also a “baseline observations” and a “trend line” describing observation ranges was more realistic. The “expected scenario progression” box was used for descriptive words rather than specific observations at different stages. The Yorkshire and the Humber Deanery Medical Simulation Scenario Script Template was then developed.

Conclusions and discussions:
Simulation scenario scripts should be written in a way that ensures that all centres are delivering uniform standard scenarios. In order to maintain realism for the candidate, the observation trends should not be altered too quickly and a set of realistic observation limitation trends should be scripted. Also, the SIMman set up is easier to interpret when a tick box template is used. In view of these points, we have concluded that a generic template, as described on many occasions cannot be used within medical simulation.

References
Voting with their feet? Destinations of F2s taking time out of training

H Samuel

H Samuel, Deanery Careers Adviser, Severn Deanery, Old Gloucester Road, Bristol, UK

Background and Purpose
In recent years there has been a noticeable rise in the number of Foundation doctors who, upon completion of their F2 year, do not immediately enter specialty training but choose to take at least 12 months to work abroad or undertake other activities, with the intention of entering specialty training at a later date. This longitudinal study aims to identify:

- Why F2s take time out
- Where they go
- Whether taking time out improves preparedness for specialty training
- The impact on career and commitment to specialty training
- The percentage who do not return to the UK after 12 months to enter specialty training
- Why they choose not to return
- What, if anything, can be done to encourage their return

Methodology
This study began in 2010 when F2s in the 2009/10 cohort from the Severn region were contacted via email in May of their F2 year to ascertain their career intentions. Those planning to take a year out prior to commencement of specialty training were invited to opt in to an email newsletter to keep them up to date with recruitment timescale, changes to the process and to offer on-going support from the Severn deanery careers service. F2s were asked to identify their long term specialty intention (if any), where they were going and what they were doing.

In late August of the following year, they were contacted again to establish where they were, what they were doing, whether this was the same as their original career intention and the pros and cons as they see it of taking time out of training. They were also invited to share their experiences with other F2s.

The questionnaires were refined and the same process followed for the 2010/11 and 2011/12 cohorts.

Results
The intention is to gather data from the 2012/13 and 2013/14 cohort and the longer term destinations of the previous cohorts. This will then be presented to appropriate bodies to inform future planning of postgraduate medical training.

Discussion and Conclusions
Key discussion points:
- Implications for workforce planning
- What messages is this sending about the current training routes in the UK
- To what extent are these findings reflected nationally

Interim results suggest the following conclusions:
- More females than males take time out
- Intending GPs form high percentage
- Increase in confidence
How we evaluate training posts: the views of trainers and trainees

J McHugh, R Kneebone

J McHugh, Imperial College London

Background and Purpose
Methods for educational evaluation of postgraduate medical training posts include enquiries about learners’ satisfaction with training, and assessments of learners’ improvements in knowledge, professionalism or clinical performance. Hierarchies of validity have been proposed for methods of evaluation.\(^1,2\)

There is very little published evidence concerning participants’ views about the fairness or effectiveness of evaluation methods used in clinical training. Such views may be critically important in understanding how trainers and trainees behave when participating in evaluations. This study aimed to explore the perceptions of ophthalmic trainers and trainees concerning the evaluation of training posts.

Methodology
In this small study, semi-structured anonymised interviews were undertaken with six ophthalmic trainers and trainees employed by a London NHS Trust. Each interview was digitally recorded and transcribed. A grounded approach was used for transcript analysis, and the emergent coding categories were used to compare and contrast the views of participants.

Results
Operation numbers were considered a very crude measure of the quality of training, and both trainers and trainees dismissed workplace-based assessments as a ‘paper exercise’. National examinations testing trainees’ knowledge or clinical skills were considered of minimal relevance to evaluating the quality of their training. Both trainers and trainees identified trainee satisfaction as a key measure of the quality of training. Some trainers believed that informal enquiries and careful questioning at ARCP interviews allowed evaluation of trainee satisfaction, while other participants were sceptical that negative evaluations would be divulged in such settings. The PMETB/GMC trainee survey was considered a very powerful influence on the provision of training, perhaps because of the widespread dissemination of its findings. Trainers were concerned about diminished reliability when small units were surveyed, and suggested that deanery attention tended to be focussed solely on bad results. Both trainers and trainees believed that the anonymity of the survey was compromised in small units.

Discussion and Conclusions
Traditional hierarchies of evaluation may be inadequate to understand the value-judgements participants make about educational evaluations in the complex environment of the medical workplace. Attention needs to be paid to social factors to ensure that participants engage meaningfully in evaluation exercises. Although this study was limited to a small number of participants, their views form the basis of tentative proposals for improving current evaluation systems.

References
Lay-Person Led Intimate Examination Skills Training: A Meta-Analysis

A Braddy, SK Chequer, JMN Duffy, S Mylan, M Eyo, R Rolph, R Chenoy, S Hayden, KS Khan, A Cushing

A Braddy, BSc (Hons) Medical Education Student, Women’s Health Research Unit, Barts and The London SMD, Garrod Building, Turner Street, London, E1 2AD

Background and Purpose
The intimate examinations include breast, pelvic, rectal and scrotal examinations. All UK medical student graduates are required to perform these examinations competently (1). Mastering these examinations is challenging due to the advanced technical and interpersonal skills required (2). Training delivered by lay-people, with themselves being examined, is becoming increasingly popular (3). Many studies have been performed to evaluate the efficacy of lay-person training with variable results. The objective of this study is to undertake a high quality meta-analysis of published randomised controlled trials (RCTs) and controlled studies to determine the pooled outcome efficacy of lay-person led training of the intimate examinations.

Methods
We have searched CINAHL, EMBASE, MEDLINE, PubMed and the Cochrane Library databases from conception to December 2012 and identified 23 RCTs and controlled studies evaluating lay-person led interventions in the delivery of intimate examination skills compared to any other training method. Two authors are in the process of assessing the methodological quality of these studies, utilising CONSORT criteria (5). Following this, data will be extracted by two authors for each study that reports outcome measures relating to technical, communication and interpersonal skills, student anxiety and student evaluation.

Results
Methodological quality will be described fully and presented in a Risk of Bias table. When combining dichotomous results, we will use the numbers of events in the control and intervention groups of each study to calculate odds ratios. When combining continuous data from individual studies that report similar outcomes but on different scales we will calculate the standardised mean difference. We will explore methodological and statistical heterogeneity.

Discussion
There is no consensus as to the optimal method for delivering intimate examination skills training. When completed the pooling of results from individual studies will provide a fascinating insight into the efficacy of lay-person led training in the intimate examinations.

References
The Clinical Teaching Reward Card: An Innovative Method of Recognising and Rewarding Clinical Teachers

DG Roberts, A Crees, G Morris, C Taylor

DG Roberts, Clinical Teaching Fellow, University of Bristol, Bath Academy at Royal United Hospital, Bath, United Kingdom

Background and Purpose
The University of Bristol at the Bath Academy acknowledges that medical undergraduates receive important clinical teaching sessions from many junior doctors which are not formally recognised. Now that all higher training applications require evidence of teaching “activity and interest,” junior doctors value written evidence of teaching activity for their portfolios. The Bath Academy has developed and introduced a clinical teaching reward card scheme, aiming to give recognition to those providing clinical teaching and emphasise that clinical teaching is equally as important as tutorial or lecture type teaching.

Methodology
The Bath Academy clinical teaching reward card is 5 x 8cm with designation areas for student signatures on the reverse of the card. There are three types of clinical teaching for which teachers can gain signatures, namely, clinical skills, bedside teaching and practice objective long cases (a University of Bristol timed patient clerking assessment). Undergraduates at the Bath Academy are briefed on the scheme at the beginning of their placement, with students signing a teacher’s reward card after a teaching session. At the end of the academic year clinical teachers are invited to submit their reward card(s) and receive a certificate which will state the amount of clinical teaching given. The type of certificate received depends on the number of signatures they have obtained ranging from a Formal certificate of recognition (5 - 8 signatures) to a Platinum certificate of recognition (2 completed cards). The Bath Academy will also award the clinical teachers with the most signatures in each category with ‘Junior Doctor Clinical Teacher of the Year’ awards.

Results
The clinical teaching reward card scheme has been well received by both students and junior doctors to date. The scheme has helped develop relationships between the Bath Academy and those doctors wanting to become more involved in teaching.

Discussion and Conclusions
The clinical teaching reward card is an innovative way to recognise clinical teaching, with the scheme encouraging junior doctors to provide clinical teaching in the various categories. The scheme will provide junior doctors with written evidence of their clinical teaching activity which reflects the amount of clinical teaching they have performed. The clinical teaching reward card is currently being introduced at other University of Bristol Academy sites and it has the potential to be used at many hospitals throughout the United Kingdom.

References
Should there be a specific online portfolio for clinical teaching fellows?

DG Roberts, TP Slade, R Winterborn, N Jakeman

DG Roberts, Clinical Teaching Fellow, University of Bristol, Bath Academy at Royal United Hospital, Bath, United Kingdom

Background and Purpose
Many postgraduate doctors are pursuing an interest in medical education by undertaking a clinical teaching fellow (CTF) position, with each role differing depending on previous experience and future career aspirations. As GMC revalidation\(^1\) has begun it is important for doctors to keep an up to date record of activity. There are a number of online portfolios available but are any suitable for clinical teaching fellows?

Methodology
We have reviewed the currently available online portfolios; the NHS ePortfolio\(^2\) for physician and emergency trainees, and the Intercollegiate Surgical Curriculum Programme\(^3\) (ISCP) for surgical trainees. The areas we have reviewed include cost, usability, teaching assessment forms, teaching logs, educational meetings and data storage capacity.

Results
Each of the online portfolios has an annual fee currently ranging from £25 to £165. Layout and interface of all the portfolios is uncluttered and ease of navigation is dependent on users’ experience with that portfolio. In all there are opportunities to record educational supervisor meetings and set personal development plans. Observations of teaching forms have various titles and content. The physician form offers comment boxes, without global impression grading, with ISCP and the emergency ePortfolio offering impression tick boxes and space for comments. The log of teaching in ISCP is documented in a specific teaching log, ePortfolio for emergency trainees offers a log of taught courses (i.e. ALS, ATLS) and the physician ePortfolio teaching log is in a generic reflective log. ISCP and ePortfolio for physicians both offer a supporting document upload space of 40MB with 100MB in the emergency ePortfolio.

Discussion and Conclusions
The online portfolios reviewed do have areas that can be used for a CTF portfolio but no portfolio is adequately suitable. The teaching assessment forms differ, offering tick boxes with space for optional comments or just space for comments. Tick boxes do offer the advantage that multiple forms can be combined to formulate a mean mark but can turn into a ‘tick box’ exercise. Comment boxes offer chances for assessors to give constructive formative feedback but this will vary depending on the assessor’s training in assessment. As the CTF role is emerging there should be a specifically designed online CTF portfolio as the needs and requirements of a CTF are different to other trainee’s. Some CTFs may prefer to use their own specialities portfolio for future portfolio continuity so current portfolios should also accommodate the needs of a CTF.

References
A Novel Home Simulation Training Programme For Laparoscopic Surgical Trainees: Feasible And Effective

C Nesbitt, H Ellis, J Burns, D Macafee, S Dent, A Horgan

C Nesbitt, Newcastle Surgical Training Centre, Newcastle Upon Tyne

Background and Purpose
Evidence exists to support the role of virtual reality simulation (VRS) in postgraduate laparoscopic surgical training\(^1\). One key element to successful simulation training is continuity.

Even in the most enthusiastic deaneries where VRS has been integrated in a formalized programme\(^2\) trainees receive a maximum of just four days training in an academic year. Access to these expensive simulators remains a barrier to effective training. Geographically many trainees work remotely from their simulation centres, and struggle to gain access during opening hours. The purpose of our trial was to assess the feasibility and efficacy of a laparoscopic home simulation training programme (LHSTP).

Methodology
20 Core Surgical trainees were recruited to the LHSTP trial. Baseline laparoscopic skills were assessed using Simbionix™ LAP Mentor. 10 trainees received additional training on a portable virtual reality laparoscopic trainer using MySimendo™ Laparoscopy online Curricula (MySim group). 6 trainees received no additional training (control group). All recruited trainees then repeated the baseline assessment. In addition, MySim trainees completed pre and post programme questionnaires. Throughout the trial period, both groups had access to a LAP Simendo VR simulator between the hours of 9-17:00 at the regional simulation training centre (RSTC).

Results
All MySim trainees, post-LHSTP, reported improved confidence in “use of instruments” (p=0.001), “tissue handling” (p=0.009), “manual dexterity” (p=0.01), “3-D visuo-spatial awareness” (p=0.003) and “depth perception” (p=0.022). All recruited trainees improved their assessed baseline laparoscopic skills. No trainees accessed the available LAP Simendos at the RSTC during the trial period.

Discussion and Conclusions
Current simulation programmes and skills centres fail to deliver an easily accessible service and expensive simulators are under utilised in institutions across the country. The LHSTP is a feasible and effective approach to core laparoscopic skills training. It proved highly popular with trainees and allows them to access training outwith their time restricted training schedule.

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2: http://www.nstcsurg.org/courses/northern-deanery.aspx
3: www.MySimendo.com
Selection
Should medical students be used in admission interviews? An analysis using the Bland-Altman technique at a UK medical school for a 5 year medical degree programme

E Clapham, C Fairhurst, J Henderson

E Clapham - Academic F2 in Medical Education. Hull York Medical School, University of York, Heslington Road, York YO10 5DD

Background and Purpose
The interview remains a foundation for candidate differentiation for selection to medical school. Traditionally it is performed by academics and clinicians but medical students are being increasingly used. It has not previously been HYMS policy to involve medical students as interviewers for prospective medical students. Whilst involvement of medical students in the selection of future cohorts was seen as a positive and rational step, little data exists which actively supports their involvement in a UK undergraduate medical school, the results of studies being limited in terms of numbers and methodological quality. This is a pilot study to evaluate the use of medical students as interviewers comparing the assessments of specific candidates made by established interviewers and medical students.

Methodology
10 medical students were selected from the current undergraduate school from Years 3, 4 and 5 and invited to interview during the final day of the 2011-2012 season. After training, they were placed in the interviews as passive observers (student scores were not used in the summative assessment process of candidates). All interviewers were blind to previous academic and demographic data of the candidates and scored the candidate independently with no conferring.

Traditional interviewer pairs consist of one male and one female member, one lay person and one clinician.

Results
The results of the study were analysed similarly to two other quantitative studies in this field for direct comparison. The structured interview arrangements allow analysis of a number of pairing between students, laypersons and clinicians. Average differences were tested against significance using paired t-tests. Correlation coefficients were calculated, and in order to assess the “replaceability” of one of the interviewers with a medical student, we undertook analysis using the Bland-Altman technique.

Discussion and Conclusions
Mean differences in our study were similar to those found in other studies and did not reach statistical significance for any pair that we tested - student-clinician, student-lay, student-average; in fact introducing students would improve current reliability. Using Bland-Altman plots permits evaluation of whether medical students can be used as substitutes for our currently used interviewers. Our data indicates the students are very similar to all combinations evaluated and could reliably replace either clinician or lay interviewers. This corroborates conclusions that whilst overall reliability of interviewing may be low medical students can contribute positively to this process.

References
Developing Written and Video SJTs for Medical School Admissions

A Husbands, J Dowell, F Patterson


Background and Purpose
Situational Judgement Tests (SJTs) present applicants with work-related scenarios accompanied by plausible multiple-choice type responses and hold promise for the pre-interview assessment of non-cognitive skills in medical school admissions. While SJT scenarios are traditionally presented in written-prose format, some have argued that video scenarios could lead to increased reliability because of increased realism. Only a handful of studies have been conducted on the use of ‘V-SJTs’ in this context and none in the UK. This study reports on a development and pilot project comparing the utility of written and video SJTs, their associations with MMI scores, HEXACO personality dimensions and face validity.

Methodology
Integrity was identified as the non-cognitive attribute of choice from a role analysis of medical students. The researcher aimed to develop 3 types of SJTs with equivalent content, namely video (V-SJT), written-prose (WP-SJT) and written-verbatim script (WV-SJT). Ten integrity-based scenarios were developed into written-prose format through critical incidence interviews with academic and clinical staff. Corresponding V-SJTs were filmed using a mix of professional actors and current students and WV-SJT scripts were transcribed from these, with non-verbal cues. MMI candidates were invited to participate in the SJT pilot after their interviews and informed that SJT scores will not affect their selection decision in any way. Participants were assigned quasi-randomly to one of three groups: V-SJTs, WP-SJTs or WV-SJTs and instructed to respond on a written questionnaire. Questionnaires comprised of 10 SJT scenarios, the personality inventory and face validity questionnaire.

Results
Written and video SJTs were developed, including initial interviews, piloting, videoing and editing, transcription and questionnaire preparation. In December 2012 and January 2013 188 of 480 (39%) candidates agreed to participate in the study in three approximately equal groups. Anecdotal candidate reactions suggested favourable impressions towards the SJTs. Initial results will be presented and will explore associations between SJT type, MMI score, personality dimensions and face validity.

Discussion and Conclusions
Development of the SJTs was successfully accomplished. This study offers a unique opportunity to compare written and video SJT scores with the emerging MMI process. If SJTs can be shown to efficiently assess attributes valued in medical school selection, especially those expensively and often unreliably assessed via interview, it would offer a considerable advance. While this presentation will focus on introducing the contrasting formats for consideration, the initial findings of interest from analysis of the pilot data will also be included.
The Manchester Access Programme: The evaluation of a widening participation initiative

D Nimmons, F Liuzzi, B Vhadwana, S Vaughan

D Nimmons, School of Medicine, University of Manchester, Oxford Road, Manchester.
M13 9PT, UK

Background and Purpose
Those from low socioeconomic groups continue to be underrepresented in Medicine (1,2). The Manchester Access Programme (MAP) is an initiative at one UK university to encourage the engagement of low participation groups in medical education, including those from low socioeconomic backgrounds. Over five months, 17 year old pupils learn skills useful in the application process and university. On completion, pupils benefit from reduced entry requirements at Manchester Medical School and a guaranteed interview. In 2011, 8% of first year medical students at this university were MAP participants. This study aimed to evaluate the scheme.

Methodology
In 2012, 90 MAP students identified themselves as intending to study Medicine. 26 participants were sampled by gender, ethnicity and geographical location with the aim to gather a range of experiences. The schedule was developed from literature and experiences of members of the research team who had significant contact with A Level students. Key questions guided the focus groups and covered topics such as motivation for engaging on MAP and pupils’ perceptions of medical school. Template analysis (3) was used to find and organise important themes; to create a coding template that could be applied to the data from each focus group.

Results
There were 15 participants in four focus groups that ranged from 59-79 minutes long. All but one participant heard about the scheme by word of mouth; either from a representative or through a family member who had previously engaged in the scheme. Two key themes emerged regarding the MAP programme: 1. Lowered grade boundaries and, 2. Help and support with the application process. We observed a clear gender split, with males frequently mentioning lowered grades and females frequently mentioning help and support. Despite recent fee rises, only one participant discussed this as a prohibiting factor. All students described MAP as important in building the confidence necessary to compete for a place at medical school.

Discussion and Conclusions
Widening participation schemes are increasingly important due to the increased fees in UK universities. MAP provides an excellent example of how these schemes can successfully engage low participation groups; increasing levels of confidence and realising potential. Our work demonstrates that personal networks are important in recruiting students to WP initiatives and may suggest further work is needed around school ambassadors, social media and other forms of marketing. Recruiting underrepresented males may require different methods and messages focusing on entrance requirements.

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Evaluation of the introduction of multiple mini-interviews for admission to medical school with iPad data collection

I Thomas, K Foster, A Denison & A Lobban

I Thomas, Clinical Teaching Fellow with the University of Aberdeen, Highland Medical Education Centre, Inverness, UK

Background and Purpose
Evidence suggests that the multiple mini-interview (MMI) is a reliable 1, 2, valid 3 and acceptable 4, 5 format for assessing non-academic aspects of medical school applicants. The University of Aberdeen Medical School introduced MMIs in place of 20 minute two-person interviews in the academic year 2012/13. The MMI comprised five seven minute stations with two minutes between each station. Building on our experience from previous pilots, an application (‘app’) was developed to collect data from the interviews. 6 We report the evaluation of the introduction of MMIs and the iPad data collection including technical, applicant and selector perspectives.

Methodology
Prior to the first MMI all selectors received a one hour skills-based training session 7 comprising details of the new process and videos of simulated MMI stations, allowing selectors to discuss implementation and consistency of the new marking schedule. This was supported by selector manuals, online access to three further training videos and drop-in sessions to allow selectors further opportunity to trial the iPad. Within 24 hours of each MMI applicants and selectors were emailed a link to an electronic questionnaire. Questionnaires aimed to elicit views on the process and content of the MMI and comments on the interview experience or suggestions for improvement. In addition, the selector questionnaire asked about the training provided.

Results
Results from the questionnaires will be presented as will the actions taken in response to the comments and suggestions for improvements. Preliminary data indicates high levels of satisfaction from both applicants and selectors, with good evidence of validity and reliability.

Discussion and Conclusions
The success of the MMI format is dependent, amongst other factors, on the preparedness of selectors and efficient recording and processing of data. We will share our experience on how tablet computers can be an efficient, accurate and applicant-sensitive method that contributes to admissions.

References
Staff/Faculty Development
A new model to explore and explain Career Guidance preferences of Foundation Doctors

S Saksena

S Saksena, Faculty Development Lead and Consultant Hepatologist, Department of Medicine, County Durham Darlington Foundation Trust,

Background & Purpose
Doctors within Foundation Program (FP) are required to select specialty within 18 months of graduation. This has shortened time to experience specialities and to make career decisions. The study aimed to identify if career guidance experienced by trainees within foundation program, helped them in choosing a specialty, to identify their preferred sources of career guidance, reasons underlying those preferences, and problems faced in accessing career guidance, with ultimate aim to identify how career guidance in FP may be improved.

Methodology
Qualitative data was collected from nine trainees in second year of Foundation Program after informed consent, using semi-structured interviews and analysed using Framework analysis.

Results
Trainees differ in when they chose a specialty, this influences their career guidance needs and their preferences for career guidance. Three groups of trainees were identified based on when they chose a specialty: Early Seekers identified a specialty before joining the FP; Late Seekers identified a specialty after joining FP and before time of selection; Delayed Deciders had not chosen a specialty by time of selection. Early Seekers sought placements in the specialty they had identified, to confirm their choice and used websites and advice from the Deanery Careers Advisor (DCA) for information on selection process; Late Seekers sought career advice from DCA and then placements / tasters to confirm and exclude choices. Delayed Deciders did not actively seek career guidance within FP and expressed a need to step out of program to make a career decision.

Discussion and Conclusions
My study looked at a snap shot of trainees preferences at a given point in time. It is not possible to extrapolate whether Early Seekers career choices will be more sustained than Late Seekers, nor is it possible to say whether these groups change their career decision making over time or indeed they represent different groups of individuals with distinct patterns of behaviour, which may repeat itself over time. It is also possible that that there may be trainees who may not fit into this classification. It is important to recognise that “it is completely ‘normal’ for people to have difficulty deciding on their career options”. The intention is not to typecast trainees into rigid categories but to provide a starting point for career conversations between a trainee and a trainer. I would like to thank Dr Frank Local and Dr Jane Stewart, Clinical Education, Newcastle University for their support.

References
Translational clinical procedural skills for medical students: Developing a faculty to make the transition to clinical practice smooth and safe

J Tiernan, J Skinner, D Aitken, L Close, S Edgar

J Tiernan, Clinical Teaching Fellow, NHS Lothian and Specialty Registrar in Medicine, South East Scotland

Background and Purpose
GMC 2009 “Tomorrow’s Doctors” provides a core set of clinical procedures that should be attained by graduating medical students [1]. University of Edinburgh medical students are taught these procedures in the clinical skills centre at various points, using a combination of advance reading / videos, theoretical teaching and practical use of task trainer models. Despite such efforts there remains evidence that some students are not achieving competency in core procedural skills [2]. Translation of skills learnt in the clinical skills centre into real-life clinical practice remains a challenging area. Specialised facilitators can help to improve clinical ability [3] and recent work in NHS Fife suggests that dedicated “On Call” procedural training can increase students’ exposure to and confidence in such clinical skills [4]. Doctors in training are highly skilled practitioners, uniquely positioned to teach basic clinical procedural skills to undergraduates. Many are keen to become involved in teaching undergraduates but may have been doing so in an opportunistic and unstructured fashion. This procedural skills programme is aimed at improving the translation of medical students’ learnt clinical procedural skills from the clinical skills centre into real-life clinical practice. In doing so we hope to encourage and empower doctors in training to educate in a structured and realistic manner.

Methodology
The programme uses protected clinical procedural skills sessions, facilitated by doctors in training (FY2 – ST2 grade doctors). Sessions are composed of 1 tutor with 2 students, meeting in the designated clinical area to perform the procedural skills required by the treating team. Direct supervision is provided by the tutor to ensure patient safety and immediate, constructive feedback given to the student. Mini-tutorials can be built into the sessions as appropriate. Sessions are co-ordinated electronically and a combination of quantitative and qualitative feedback obtained immediately afterwards. The junior doctor tutors are given training in methods of teaching clinical skills and delivery of effective feedback and their contributions recognised and accredited by the regional clinical educator programme.

Results
Initial data demonstrate improved access to procedural skills opportunities and enhanced student confidence. Results from the baseline survey and further data from the programme will be presented.

Discussion and Conclusions
Medical education has been improved by simulation-based skills training but transferring such skills into real-life clinical practice remains a challenge. This intervention hopes to begin addressing this in our region and, in doing so, support our doctors in training to become effective clinical educators.

References
Defining a learning curve for Open Appendicectomy

S Babu, H Abboudi, K Al-Tawil, P Basnyat

S Babu, Foundation Year 2 Doctor, Emergency Medicine, Guy’s and St. Thomas’ NHS Foundation Trust, London, United Kingdom, SE1 7EH

Background
A learning curve defines an improvement in performance over time.

Aim
To examine a CT1 surgical trainee’s open appendicectomy learning curve

Method
Case notes and theatre records of open appendicectomies conducted by a single trainee from December 2011 – April 2012 were reviewed.

Results
A total of 26 open appendicectomies were performed. Operative times ranged from 20 – 91 minutes (mean 58). The length of stay ranged from 0 to 7 post-operative days (mean 1.5). Of the 26 appendices removed, 4 were histologically normal, 3 were reported as enterobius vermicularis and 19 as acute appendicitis. 2 major morbidities occurred at the early stages of the learning curve. One patient required reoperation to drain an infected collection. There were no readmissions to the same hospital and no mortalities.

Discussion
No significant reduction in operative time was observed. This may suggest that this trainee requires more than 26 cases to overcome the learning curve. Alternatively, the results may reflect the trainee receiving progressively less assistance from supervisors. Numerous factors including case mix, characteristics of the surgeon and composition of the surgical team could influence learning curves.

Conclusion
After 26 cases, the learning curve was not clearly established for this trainee. Defining learning curves for procedures could guide developing surgeons during their training. The learning curve for open appendicectomy may require more cases prior to competence.
Measuring Quality and Faculty Development Needs: An Audit of Educational Supervisor Standards in the Northern Deanery School of Medicine

S Saksena, D Robinson, C O’Hare

S Saksena, Training Programme Director, Faculty Development, Northern Deanery School of Medicine.

Background and Purpose
The Northern Deanery, School of Medicine has responsibility to the Deanery and thence to the GMC for the implementation and maintenance of the GMC trainer standards. These require that trainers are selected for their roles, must understand what they are training in and must demonstrate ability as effective trainers.

The School, felt that it was important to focus on the faculty of educational supervisors and in February 2011 launched the Minimum Standards for its Educational Supervisors. An audit was carried out to assess compliance with the standards during the Summer of 2011. The purpose of the audit was to identify and support the trainers within the School who play a key role in delivering training and to find out whether they were trained and supported in their role including if they had protected time included in their job plans. It was hoped that the audit would identify areas of notable practice and highlight any development areas.

Methodology
A quantitative approach was used to design an on line survey tool to measure compliance with existing standards. 424 educational supervisors were identified within the school and requested via email to complete an online survey in May 2011. Data was analysed quantitatively, by specialty and by Trusts (Local Education Providers) and the report produced was shared with Senior NHS Colleagues within the region and action points identified.

Results
There were 170 responses received which equated to a 40% response rate. The audit indicated that majority of respondents had met the School’s minimum standards for training. It identified areas for development including recognition of educational roles in job plans and inclusion within appraisal process. Results from this survey, conducted 18 months ago, will be presented and discussed.

Discussion and Conclusion
This audit has helped profile our faculty of educational supervisors and their faculty development needs. It has confirmed that the School has a faculty committed to providing high quality training and provided evidence to drive improvements such as recognition of educational supervisor roles in job plans, need for appraisal of educational supervisor roles, and need for local education providers to identify resources and develop systems to select and train their trainers. We will like to acknowledge support and contribution of Dr. Harriet Mitchison, (ex) Head and Dr. Brian Wood, Head of Northern Deanery School of Medicine.

References
Development of individualised coaching programme to support SAS doctors

A Williamson, B Bookless

A Williamson, Medical Education Manager, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Royal Victoria Infirmary, Newcastle Upon Tyne, UK

Background
Specialty and Associate Specialist doctors (SAS) are usually on permanent non-consultant contracts which have often been viewed as a second choice pathway despite contributing significantly to service delivery. There has been a lack of training and development opportunities and traditional educational methods have not effectively met the learning needs of this staff group. There has been uncertainty on individual career development and where their role fits within an organisation.

Aim
• To support SAS doctors in identifying individual learning plans whilst delivering Trust priorities.
• Provide personalised support through structured coaching sessions
• To incorporate learning plans within Trust appraisal process

Methods
• A coaching approach was used to help the individual identify their own development needs and subsequent actions required.
• Applicants had to be willing participants, receptive to coaching, with the support of their Clinical Director.
• 3 face to face coaching sessions were offered as 2 hour meetings run over a 12 month period led by a trained coach familiar with the NHS
• Session 1 explored the current situation, previous experience and identified important issues to reflect on
• Session 2 discussed the individual’s reflections from session 1 and develop an action plan for development, exploring the use of other diagnostic tools e.g. 360 degree appraisal or Myers Briggs
• Session 3 reviewed progress on action plans and identified how the development will be continued
• Feedback forms were collated to evaluate satisfaction with coaching and completion of learning plan.

Results
9 SAS doctors participated in the programme and feedback has been very positive. Participants valued the opportunity to discuss events in a safe and confidential environment, looking at issues critically and realistically. The process developed a greater understanding of why situations had arisen and options for dealing with these. It instilled confidence in participants by providing constructive feedback and encouraging the development of contingency plans to achieve objectives. Participants have been able to identify their own learning needs and all have incorporated the learning plans within their appraisal.

Discussion and conclusions
Coaching has proven to be a successful investment in personal development for the individuals. It has empowered SAS doctors to develop clear learning plans to facilitate their appraisals and clarify their role within organisation. It has simultaneously helped inform future learning development and support for SAS doctors as a group. Future work will be focussed on more widespread uptake of coaching for this group.
Exploring UK undergraduate medical student perceptions of clinical academic careers in the shadow of the global financial downturn

A Lawson McLean, RJ Piper, J Carmichael, Z Qureshi, A Ma, CD Russell

A Lawson McLean, Newham University Hospital, London, UK

Background and purpose
Recruitment of trainees into clinical academic medicine remains an area of concern, and difficulty in obtaining research funding and concerns regarding pay parity have been identified as obstacles to junior doctors' pursuit of careers in this field [1, 2]. An attempt has been made to address this trainee shortfall in recent years, coinciding with the economic downturn. Even short-term labour market shocks can have long-term effects on workers' careers, especially on those at the outset of their careers. We sought to determine whether the economic recession and the recent rise in university fees have had an appreciable effect on current medical undergraduates' motivations to pursue careers within academia.

Methodology
The 2012-13 cohort of the University of Edinburgh medical school (encompassing all undergraduate years) was invited to complete an online, Likert-type questionnaire that explored their perspectives and expectations of academic careers.

Results
40/94 respondents felt that their level of educational debt was of long-term concern but there was no association between this and whether students had intercalated or planned to do so. Financial concerns notwithstanding, 23/94 students wanted to be significantly or exclusively involved in research during their careers. 27/94 believed that the current economic downturn would leave them less likely to undertake a period of full-time research. The same number stated that the downturn had reduced their likelihood of pursuing a research-orientated career. Being well-compensated financially was important to a majority but only 36/94 believed that clinical academics are well-paid. The potential for career enhancement and the flexibility of combining research with clinical training in a desired specialty were cited as ‘strong’ influences to undertake a period of full-time research. In contrast, the level of educational debt was a ‘minor’ influence, with income expectations and the degree of competition for research funding both ‘moderate’ influences. 37/94 wished to complete a higher research degree; this was significantly more likely among those who desired to be significantly or exclusively involved in research (p<0.0001). A majority (80/94) believed that a higher research degree would enhance their competitiveness in applying for training posts.

Discussion and conclusions
These data provide contemporary insight into students' perceptions of academia, which attempts to address the academic trainee shortfall should recognise. While the effects of the global financial crisis continue to reverberate, it seems its impact has been limited among the small cohort of medical students who have their sights firmly set on clinical academic careers.

References
Feasibility of training medical students to give structured feedback to trainee tutors and lecturers

I M Cameron, L H Jones, Y Wang, M Rashid, D M Bennett, M Moffat

I M Cameron, University of Aberdeen

Background

Development of teaching skills is facilitated by reflective practice\textsuperscript{1} which in turn is stimulated by observation\textsuperscript{2,3}. There has been much focus on the role of peer, evaluative and developmental observation\textsuperscript{4,5} where tutors’ contemporaries, senior colleagues and educators provide feedback respectively. This study explored the feasibility of training and utilising medical students to provide structured feedback to trainee tutors and lecturers in one specialty (psychiatry).

Methods

A review of structured feedback theories and methods was conducted to identify the most appropriate approach for students to provide feedback to tutors/lecturers. Two focus groups were then conducted. The first group consisted of medical students purposively sampled to ensure a mix of sex and year of study. The second group consisted of psychiatrists purposively sampled to ensure a mix of sex and seniority. All participants gave written consent. During the focus groups, participants were shown a presentation describing different methods of structured feedback (identified from the literature review). Following this, a structured discussion took place to explore the perceived acceptability of the various methods for students to provide feedback to tutors. The focus group discussions were audio recorded and transcribed verbatim. A thematic analysis of the transcripts was made, using the framework technique.

Results

Three feedback methods: Pendleton’s rules, ALOBA and the SET-GO technique were identified for appraisal in focus groups. Nine students participated in the student focus group (4 male, 5 female, representing 1\textsuperscript{st}, 2\textsuperscript{nd} and 4\textsuperscript{th} year). Four psychiatrists participated in the tutor focus group (1 male, 3 female, 2 consultants and 2 trainees). Both groups identified the importance of feedback in informing educators of what was effective and what could be modified in their teaching methods. Both groups identified advantages and disadvantages of all three methods however participants found the ALOBA framework to be the most comfortable model to use in the situation of student-delivered feedback. Reasons cited in favour of ALOBA included that it was logical, focused, quick and constructive. However, it was also recognised that to work best the educator is required to be self-aware and that some tutors / lecturers may find it difficult to identify their own strengths and weaknesses.

Conclusion

The ALOBA feedback model appeared most acceptable to students and psychiatry tutors. The next stage of this work would be to conduct a pilot study of training medical students in the ALOBA method.

Reference

Collaborative leadership in action: Developing junior doctor champions

E Bate, J McKimm, J Green, K Forrest

E Bate, Academic Education Foundation Year 2 Doctor, University of Liverpool, School of Medicine, Liverpool, L69 3GE

Background and Purpose:
The international focus on developing students and doctors as teachers, researchers and clinical leaders and managers\(^1\) has led to the incorporation of these competencies within undergraduate education, and the expansion of post-registration education and training programmes ranging from postgraduate awards to one-day workshops. Despite this, medical trainees often remain recipients of such interventions rather than designers or deliverers. Few faculty development or ‘training the trainer’ courses for ‘junior’ faculty exist and active succession planning is limited. We report on how, in the UK, through active collaboration and networking, supported by experienced faculty, trainees and students are becoming champions and leaders of such endeavours.

Methodology
A small number of champions\(^4\) and “little ‘l’ leaders”\(^5\) were identified who were purposefully developed through active engagement, training and mentoring as future faculty. This process involved working as ‘boundary spanners’\(^6\), establishing networks between alumni/participants from different programmes and organisations to deliver collaborative workshops.

Results
Many trainees and students attend teaching, research or leadership professional development events throughout the UK, annually. Individual alumni were identified and collaborations formed between different organisations that run these training activities. These included; trainees from Junior ASME who deliver teaching and research workshops for medical students, two Academic Foundation Programmes in clinical leadership and management and delegates from ASME’s Fundamentals in Leadership and Management for Educators (FLAME) workshops (international).

Effective faculty development for these leaders has been achieved, but remains complex as they need to be supported as their understanding of relevant theory/models is developed and applied to real life projects. Facilitating this learning through experience and working within a community of practice\(^7\) is essential to facilitate the required attitudinal change and paradigm shift whilst promoting self-insight through feedback and discussion.

Discussion and Conclusions
Leadership, research and education are now core competencies in medical education. Through collaboration between organisations, a critical mass of qualified faculty has been developed to deliver future programmes: collaborative leadership in action. With training and mentorship, early career doctors can both lead and manage innovation and change in small and bounded ways and, importantly develop as faculty to train others. Nevertheless, these skills and approaches need to be learned and developed over time, requiring interpersonal and attitudinal change.

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An Evaluation of Secondary Care Clinical Training Provision and Support in the East Midlands Strategic Health Authority

R I Norman, N Dogra

R I Norman, Director of Medical Education Research and Development, Department of Medical and Social Care Education, University of Leicester. Leicester, United Kingdom

Background and Purpose
Evaluations of students’ experiences of medical teaching have been made at both undergraduate1 and postgraduate2 levels. In contrast, only limited attention has been given to the views and attitudes of teachers of medical undergraduates3,4 and almost none of teacher/trainers at the postgraduate clinical level5. The aim of this study was to investigate the time allocation, engagement, training, experiences and attitudes of secondary care providers in the East Midlands Strategic Health Authority (EMSHA) engaged of undergraduate teaching and postgraduate training.

Methodology
An on-line survey was designed using elements from published validated surveys of undergraduate3,4 and postgraduate6 clinical trainers.

Results
Completed surveys were submitted by 518 participants, which represented a response rate of 25.8%. Most respondents taught at both undergraduate and postgraduate levels. Reported rates of completion of statutory training were relatively high. While educators considered that teaching is delivered appropriately, a large proportion of educators reported working beyond their specific teaching or Supporting Professional Activity time allocations to fulfil their teaching responsibilities. The substantial majority of clinical educators reported enjoyment of clinical teaching but the general level of satisfaction with the clinical teaching experience was relatively low, due predominantly to time pressures and low recognition and prioritisation by National Health Service Trusts.

Discussion and Conclusions
Clinical teaching at undergraduate and postgraduate levels is provided by committed clinical educators who report being under resourced and poorly recognised. Increased institutional recognition of teaching contributions and more open involvement of clinical trainers in communications concerning curriculum development and delivery could provide relatively simple and inexpensive enhancements to the engagement and perceived value of clinical educators in secondary care. In addition, more work is required to address the mismatch between expectation and resourcing of clinical teachers.

References
Confounding factors in using upward feedback to assess the quality of medical training

A Y Zhou, P Baker

A Y Zhou, Foundation year 1 doctor, Royal Bolton Hospital, Manchester, United Kingdom

Background and Purpose

Multiple methods of feedback exist, however, the importance of upward feedback has been acknowledged and adopted by many private sector firms. ENREF1 The General Medical Council regulate medical training in the UK2 and upward feedback can be used to monitor teaching performance as a quality control of training for trainees. However, due to different biases that exists amongst upwards feedback, such as fear and retaliation, the accuracy of upward feedback is debatable3, 4 This study aims to identify factors that could influence upward feedback. Through identifying these biases, we aim to provide suggestions on how to minimise upward feedback bias, especially in upward feedback during medical training.

Methodology

This is a systematic review. Literature searches using a structured strategy were done to find relevant articles for the systemic review. A total of 35 databases were searched. Search results of <1000 articles were reviewed and relevant abstracts were shortlisted. All studies in English, both medical and non-medical literature, were included. No time limit was set. Full articles obtained were further screened for relevance. References were also reviewed in order to identify any other relevant studies. A simple pro-forma (method and key findings) was used initially to identify the pertinent areas of upward feedback. Following this, a focused pro-forma was designed in order to extract data from the literature obtained through the search. Contents of this pro-forma included: study design, demographics, types of upward feedback bias, Kirkpatrick level and open comments. PB and AYZ reviewed articles separately and disagreements were resolved through negotiated consensus.

Results

A total of 239 articles were found. The results from data extraction will be presented, as well as solutions that could be utilised to minimise upward feedback bias in surveys.

Discussion and Conclusions

Although upward feedback can improve ratee performance,5 however, both covert and overt bias still exists. Fear and retaliation, as well as confidentiality and accountability are commonly mentioned and are generally addressed within the literature.6, 7 Furthermore, the majority of studies only cover Kirkpatrick level 1, reaction. More studies that go beyond level 1 could increase the awareness of different evaluation techniques in training programs. Moreover, triangulation of different feedback methods could optimise the quality of training. Finally, we hope that the results of this systematic review can enable a deeper understanding of upward feedback bias, and that it can be applied to improve the evaluation process for trainees in medical training.

References

Improving awareness of the management of sexual assault in the multi-disciplinary team

A Hawkins, K Else, V Taylor, M Masiello, K Jones

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

Objectives
To establish the level of awareness around managing sexual assault amongst local healthcare professionals and to address gaps in knowledge by delivering a multidisciplinary educational workshop.

Methodology
An online questionnaire was circulated to all medical staff working in obstetrics and gynaecology, paediatrics, accident and emergency and sexual health. The staff were asked about 1) previous training in the management of sexual assault 2) awareness of BASSH guidelines1 and 3) local services (SARC: New Swindon Sanctuary, Swindon). A multi professional educational workshop was then organised. This was an optional event which was advertised via e-mail and posters in the relevant departments. Speakers were invited from the sexual health department, local sexual assault referral services (SARC) and maternity services. Feedback was collected via an online questionnaire after the workshop.

Results
The initial survey was sent to 100 staff members, of which twenty seven (27%) responded. The number of Obstetrics and Gynaecology staff was eight (29.7%) with seven A & E staff (25.9%) and ten Paediatric staff (37%). The initial survey showed that twenty three (85.2%) of respondents had knowingly cared for an individual who had been sexually assaulted, fifteen (55.6%) were unaware of the current BASSH guidelines and eight (29.6%) had never had teaching in this area. The majority (88.9%) of staff felt further teaching would be useful. The multidisciplinary workshop was attended by fifty members of staff. Twenty responded to the feedback survey which showed that nineteen (95%) found the teaching useful and all attendees felt the topics addressed were relevant. Qualitative analysis provided suggestions for developing the workshop in the future.

Conclusions
A wide variety of healthcare professionals look after victims of sexual assault. They have specific health needs at the time of assault but the events may have an impact on their medical care over a long period of time. Multidisciplinary training in the management of victims was considered to be useful by workshop attendees. We would recommend workshops such as this to other hospitals.

References
Teaching About Specific Subjects
Student Evaluation of Lay Person-Led Pelvic Examination Training

SK Chequer, A Braddy, JMN Duffy, S Mylan, M Eyo, R Chenoy, Rachel Rolph, S Hayden, KS Khan, A Cushing

SK Chequer, Barts and The London School of Medicine and Dentistry, London, United Kingdom

Background and Purpose
The pelvic examination is considered a key competency for undergraduate medical students(1). Performing a pelvic examination competently, can be challenging due to the advanced technical and interpersonal skills required(2). Traditional methods of delivering pelvic examination training involving videos, manikins and anaesthetised patients are associated with poor educational outcomes(3). Gynaecological teaching associates (GTAs) are lay women trained to teach intimate examinations with themselves being examined. They work in pairs with one acting as a patient and the other as an instructor. The objective of this study is to report the student evaluation of GTA training.

Methodology
4th year undergraduate medical students with no previous experiences of pelvic examination training were invited to participate within the study. 42 students agreed to participate within the study and undertook training between October 2012 and January 2013. Before students attended training, demographic information was recorded. In addition, students completed a standardised and validated questionnaire, with two domains encompassing knowledge and confidence. Enrolled students then undertook a single 2.5 hour GTA training session, no more than 3 students were present in a single session. Following this, students were asked to complete a standardised and validated questionnaire with three distinct domains encompassing knowledge, confidence and satisfaction.

Results
GTA training is scheduled to be completed by the 31st January, 2013. Data will be collected and analysis performed subsequently.

Discussion and Conclusion
GTA training is an expensive training intervention when compared with manikin demonstration or video presentation. Evaluation of such programs needs to be robust and encompass student evaluation as well as an estimate of the real gains achieved in terms of technical and interpersonal skills.

References
Can interactive peer led lectures increase career aspirations for Academic Medicine?

D Nimmons, H Faruqi, O Orekoya, D Henderson, J Hart

D Nimmons, School of Medicine, University of Manchester, Oxford Road, Manchester. M13 9PT. United Kingdom

Background and purpose
The decline of Academic Medicine is well recognized (1, 2). It is critical that we continue to address the issue in order to prevent the potentially damaging effects this may have on the quality of education received by students and trainees, the progress of medical research, and consequently, patient care. It has been suggested that one way to reverse this decline and increase participation is to increase awareness amongst medical students (3).

Methodology
A peer led lecture series has been designed to inform students of key aspects of Academic Medicine. The aim is to inspire students to undertake research and consider Academic Medicine as a career. Examples of lectures are:

1. An overview of Academic Medicine and included talks from inspirational clinical academics.
2. Research related intercalated degrees and summer placements.

Lectures were publicised using a number of methods, including social network sites. Questionnaires were used to evaluate the lectures and investigate changes in intention to enter Academic Medicine and undertake research.

Results
After hearing about academic medicine, 95% of attendees (n=130 attended) felt more inspired to embark on a career in Academic Medicine when compared to the start of the lecture. All attendees felt well informed on the subject. After learning about intercalation, 87% of attendees (n=110 attended) felt that they were more likely to intercalate. Furthermore, 81% felt well informed about the alternatives to intercalating. Over 50% had heard about the lectures from social networking sites, such as Facebook.

Discussion and Conclusion
The vast majority of medical students who attended the lectures found them very useful. The results show that there are students interested in Academic Medicine. Many of the attendees had heard of the events via social networking sites, highlighting this as a new and useful way to reach our target audience, in addition to traditional routes such as email or University announcements.

Providing interactive, exciting, and peer led lectures on Academic Medicine at medical school is a good way to increase interest and encourage medical students to enter the field. We feel it is one method to help reverse the decline of Academic Medicine and increase participation.

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Teaching and Learning
Work based assessments amongst Surgeons: the need for an improvement to current practice

C Lutterodt, F Godazgar, P L Sadigh, G K Phoenix

Introduction
Work based assessments (WBA) including Directly Observed Procedures (DOP), Clinical Evaluation Exercise (CEX) and Case based Discussion (CBD) are considered the highest form of assessing clinical competence, facilitating trainer-trainee feedback. However, due to time constraints and other pressures, assessors are inadequately trained, completing WBAs without feedback and often failing to be present during assessments.

Method
Surgical foundation year trainees (FY1 and FY2) and their past 5-month experiences of WBA in a central London teaching hospital were collated through an anonymous questionnaire. Responses were graded on the Likert Scale.

Results
Response rate was 100% (FY1=11, FY2=16). Majority of FY1 (n=9, 82%) and FY2 (n=10, 63%) have completed ≥50% of DOP with an assessor present during the procedure. Most FY1 (n=8, 73%) and FY2 (n= 13, 81.25%) have completed ≥50% of CEX with an assessor present during the clerking. Almost all FY1 (n=10, 91%) and FY2 (n=14, 87.5%) have filled in ≥50% of CBDs face-to-face with assessors, with feedback provided.

Several FY trainees (n=15, 44%) report that they have not received training on WBA and some trainees (n=10, 37%) have ≥50% of their WBAS completed by assessors not trained in WBA.

Discussion
The majority of foundation year trainees complete WBA with their assessor present. However, there is a deficiency in WBA training amongst both trainees and trainers bringing into question the validity of completed WBAs within our cohort. We would encourage surgical trainers and trainees to assess their current WBA practice and undergo training, readily available through web-based resources and workshops.
Students as co-producers of knowledge: we started a debating club!

B Robinson, S Patel, P Gunasekera, T Collett, S Regandebere

B Robinson and S Patel, Students, Plymouth University School of medicine and Dentistry, Portland Square; Plymouth University, Drake Circus, Plymouth, Devon, PL4 8AA

Background
Within Higher Education Research there is a growing interest in the process and outcome of involving students more actively in the production of knowledge. Rather than positioning students as passive or active consumers of expert knowledge students within this literature are positioned as co-producers or dual authors of learning. In this paper we explore the value of involving students at the ‘planning stage’ of teaching and learning and consider what happens when students are in charge. Our focus is critical thinking and the subjects of ethics, humanities, social science and politics.

Methods
Our study is based on an intervention project conducted by medical students involving the setting up of a student debating club at Plymouth University Peninsula School of Medicine and Dentistry. 3 Focus groups were undertaken with 8 project participants during and after the project in order to explore their perceptions of the process and general outcomes. The focus groups were transcribed and analysed in the first instance for their main themes.

Findings
Traditionally it has been difficult to engage students in the social and ethical issues related to medicine, however our study has found an underlying commitment to these subjects borne out of an interest in general global politics and initiated during A level study. Subjects discussed include NHS reforms, euthanasia, abortion and. 30% of the PUPSMD cohort attended an initial session voluntarily and students have requested training in public speaking and argument. Harnessing our natural interests is empowering and provides a valuable way of engaging us as agents in real life issues with which we will become confronted as medics. We would like to make debating a national and international student event and inspire other students to debate against us!
Widening Access to Work Experience for School Pupils in Tayside

G Baird

G Baird, Final Year Medical Student, Ninewells Hospital and Medical School, University of Dundee, Dundee, UK

Background and Purpose
Medical schools look favourably upon applicants who have evidence of work experience on their applications. This demonstrates a clear interest and commitment to their future career choice.\textsuperscript{1,2} For some work experience can be difficult to obtain. Widening access to work experience and medical school is important.\textsuperscript{3} Over the past two years the University of Dundee has offered a student led work experience programme for school pupils within Tayside called Medic Insight. A key aim of this initiative is to offer equal opportunities to work experience regardless of background with the long-term aim of aiding the diversity of the medical student population.\textsuperscript{4}

Methodology
This is a student led initiative. The weeks ran in June 2011 for 40 students (77% state school, 33% private school) and June 2012 for 81 students (61% state school, 39% private school). The weeks involve the pupils attending a welcome session on their first day followed by half day rotations around different departments within the hospital. At the end of the week the students were gathered together for a debrief and feedback session. Feedback was collected anonymously from 113 students (94%) by the authors to assess the student point of view to the work experience placement with a view to improving future programmes.

Results
The results from the feedback was very positive with 100% of students feeling that the programme should be run again and was highly successful. All of the students expressed that the student led sessions surrounding the UKCAT and personal statement were useful. The placements the students found most enjoyable included Respiratory, Paediatrics, Accident and Emergency and Surgery. In general, the students did not enjoy the placements in General Practice, Psychiatry and ENT.

Discussion and Conclusion
The placements were a highly valuable experience for the students, who provided very positive feedback. Equal access to work experience allows applicants to better their applications to medical school with the aim of gaining an interview.\textsuperscript{2} Further research needs to be done looking at the number of attendants from the programme who are successful at gaining an interview and acceptance to medical school.

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Debriefing the Debrief

L Redgrave, K Gaunt, S Noor, M Pimblett, M Dickinson, JM Hanson

L Redgrave, Lancashire Simulation Centre, Royal Preston Hospital, Lancashire Teaching Hospitals NHS Trust, UK

Background and Purpose

Debriefing is an integral part of simulation training\(^1\), providing the opportunity for facilitated feedback, discussion and reflection by learners as part of an experiential learning cycle.\(^2\) It is widely considered that effective feedback should involve the use of open questions, with encouragement of self-debriefing by learners and the use of audio visual equipment to reinforce or stimulate areas of discussion.\(^3,4,5\) Rarely do those who debrief (debriefers) have the opportunity to have their debriefing skills analysed or assessed constructively in order for them to improve. However research suggests that the perceived skill of the debriefer is the most important independent factor correlating to the perceived overall quality of teaching.\(^6\) In recognition of this at Lancashire Simulation Centre we have designed a unique coding template that allows debrief analysis. This study aims to scrutinize and compare the debrief analyses of different faculty members at the centre, subsequently allowing for feedback and focused development of individual debriefing skills.

Methodology

Simulation faculty staff (current medical education and simulation fellows and full time simulation facilitators) responsible for delivering simulation and debrief sessions were identified to participate in this study. With consent, debrief sessions (delivered by the different faculty members) were identified and video recorded from third year medical student simulation scenarios on ‘the breathless patient’. A touch screen coding template was used that enabled 2 separate observers to retrospectively watch and code the following aspects of debrief: 1. No. open questions asked by debriefer 2. No. closed questions asked by debriefer 3. Student talk time 4. Debriefer teaching (talk) time 5. Silence 6. Video playback. In addition, after each of the debrief sessions, anonymous feedback was gathered from the trainees on the perceived quality and effectiveness of the debrief.

Results

Results of the debrief analysis will be presented, with consideration of whether variables such as ‘years experience in debriefing’, or ‘debriefer training background’ impacts on the construct of individual debriefs. In addition, the relationship between particular features of an individuals’ debrief and trainees perceived satisfaction will be explored.

Discussion and Conclusion

A variety of different debriefing techniques exist that help enhance individual debriefing methodology. Historically, feedback and analysis of debriefing performance has been limited to subjective observations by a colleague or more senior trainer. Using our coding template, a detailed and objective analysis of debriefing is now possible. This results in a more comprehensive and specific overview of debriefing skills whilst highlighting areas for improvement.

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An Oral and Maxillofacial Surgery pocket survival guide for the single qualified dental graduate

AN Beech, SM Buckley

AN Beech (Speciality Doctor), SM Buckley (Trust Doctor), Department of Oral and Maxillofacial Surgery, Gloucestershire Royal Hospital, Great Western Road, Gloucester, UK

Background and Purpose
In the dental undergraduate curriculum in the UK there is little time dedicated to the speciality of Oral and Maxillofacial Surgery and the basic medical management of patients. In contrast the undergraduate medical curriculum dedicates a vast amount of time to this and the skills required for the Foundation Years.

There are around 530 single, dentally qualified Oral and Maxillofacial Surgery posts currently in England alone. Working in one of these posts for the first time can be a daunting prospect and pose a new and challenging working environment.

We present an “OMFS SHO – How to” manual, as a pocket survival guide, to help those new singularly qualified dentists in the early stages of their post. It gives the starting blocks for them to build on to allow them to start the job with confidence and reassurance.

Discussion and Conclusions
A recent online and paper survey distributed to the Dental Foundation Year 1s in the South West of England highlighted a lack of confidence in not only the medical management of patients and basic ward skills, but also general knowledge of Oral and Maxillofacial conditions and procedures. Interestingly it highlighted a pleasing number of respondents who were keen to take up an SHO post to increase this knowledge and skill base. For these reasons we feel that our manual is something that will benefit a large number of dental post-graduates. The first edition of the manual has been well received by our current intake of SHOs in Gloucestershire Royal Hospital, which includes those with previous experience.
Changes in Teaching Delivery: A 4 Month Pilot Teaching Program Delivered by Foundation Trainees for Final Year Medical Students Preparing for Finals

J Farikullah, O Mirza

J Farikullah, Salford Royal NHS Foundation Trust (SRFT), Stott Lane, Salford, M6 8HD

Background and Purpose
The GMC has stated the modern doctor should be willing to contribute to the education of students and that this is important for the care of patients now and in the future. There are increasing demands and greater expectations for junior doctors to assume the role of a teacher. However, meeting these demands and balancing them against work and rota commitments in a busy and ever evolving healthcare system can be challenging. Foundation doctors at a large teaching hospital encountered a similar problem where they were unable to commit to providing regular teaching for final year undergraduates.

Methodology
A 4-month timetable was organised to fit in with both the commitments of the 30 foundation doctors and 120 final year medical students based at SRFT. Ward based FY1 doctors devised an online sign-up system for students to attend the ward at less busier times. To supplement ward teaching, FY2 doctors arranged a weekly seminar sign-up at a fixed time following their own postgraduate teaching, ensuring their availability. Their presentations were quality assured by consultants in that specialty and any subsequent feedback was mapped to their foundation curriculum. A different foundation doctor was responsible for teaching each week, ensuring all trainees had a chance to be involved, and for ward/on-call commitments to still be met.

Results
Using thematic analysis and scale ratings from feedback, junior doctors reported an increased confidence in delivering teaching and meeting the learning demands of students, whilst also improving their presentation, communication and team working skills. 75% of students based at SRFT attended regular teaching sessions. 80% found the sessions relevant to their learning and preparation for final examinations. 97% would recommend this scheme to the next cohort of students. Students were able to learn from foundation doctor’s experiences as they themselves had recently sat their final examinations.

Discussion and Conclusions
Teaching hospitals should encourage regular undergraduate teaching led by foundation trainees. Incorporating a flexible timetable and ensuring teacher availability can allow the delivery of high quality teaching which is not only beneficial for the student but also for junior doctors keen to enhance their teaching ability. By being involved in regular teaching, junior doctors are able to build the skills, attitudes and practices of being competent clinical teachers, thereby preparing them to become the educators and trainers of the future. The careful organisation of time ensures ward and rota commitments are not compromised and good clinical care is still delivered.

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Lay Person-Led Pelvic Examination Training: A Randomised Controlled Trial

S Chequer, A Braddy, JMN Duffy, S Mylan, M Eyo, R Chenoy, Rachel Rolph, S Hayden, KS Khan, A Cushing

S Chequer, Intercalating Medical Education BSc Student, Barts and The London School of Medicine and Dentistry, London, United Kingdom

Background and Purpose
There are recognised challenges in training undergraduate medical students to perform the pelvic examination(1)(2). There have been ten published randomised controlled trials (RCTs) evaluating lay person-led training of intimate examinations, including six RCTs exploring pelvic examination specifically. Unfortunately these studies have high selection, detection and reporting bias which casts doubt upon the reliability of the reported positive outcomes. Therefore there is no better opportunity for a high quality, single-blinded RCT exploring the efficacy of lay person-led pelvic examination training.

Methodology
4th year undergraduate medical students were randomly approached to participate within the study. Once eligibility was confirmed and consent obtained, students were randomly allocated by computer generated random sequence to intervention (lay person training and routine clinical training) or control (routine clinical training only). Allocation concealment was achieved with opaque sealed envelopes. Outcome measures evaluated included: technical ability, interpersonal and communication skills, student anxiety and confidence. Blinding of participants was not possible. Investigators responsible for outcome assessment were blinded to participant allocations to either intervention or control group.

Results
A power calculation determined 101 undergraduate medical students would need to be recruited into the trial to demonstrate a 10% improvement in our primary outcome measure (technical ability). As of the 29th January 2013, 77 undergraduate medical students have been recruited into the study. Data collection and analysis will be completed shortly. Continuous data will be expressed by mean difference and non-continuous data will be expressed as odds ratio. All outcome data will be reported.

Discussion and Conclusion
This is the first high quality single blinded RCT evaluating the role of lay person led training in pelvic examination. The results will form the basis for an exciting presentation and lively debate.

References
Can we introduce sustainability to clinical skills teaching?

S Bajgoric, J Appiah, V Wass, C Shelton

S Bajgoric, Keele University Medical Student, Staffordshire, United Kingdom

Background and purpose
Sustainability is becoming a moral and economic necessity. Healthcare providers are increasingly being required to manage the healthcare effects of climate change, therefore it is in their interest to limit the negative effects of their practice on the environment. As medical educators we have the opportunity through innovation to reduce the environmental impact both on our personal clinical practice, and on those we teach. The aim of this study was to apply this principle to undergraduate skills teaching.

Methodology
A student led (SB, JA) medical education SSC, supervised by a sustainability champion (CS) was undertaken. Following a literature review on sustainability in healthcare and the educational theory relevant to clinical skills teaching, the skills of cannulation and intravenous (IV) antibiotic preparation were observed in a hospital environment. The sustainability of these two skills was evaluated against the five R’s of the adapted ‘waste hierarchy’ model: reducing, recycling, reusing, rethinking and research. The students met with clinical skills teachers in a lab based setting where, through an iterative process, they established further areas where these two skills could be adapted for more sustainable teaching. The students were formally assessed by peer observation teaching the revised skills to other students. This process was recorded using the Scotia Medical Observation and Training System.

Results
We identified five areas where sustainability could be improved for cannulation and two areas for the preparation of IV antibiotics without compromising patient safety. Changes to the former skill focussed on reducing the number of materials used and minor changes to the procedure itself. For the latter skill, using a one needle technique and recycling the vial had the potential to decrease needle-stick injuries and reduce the carbon intensive costs of glass and steel production. There were cost savings of £372 and £51 respectively per cohort practice of the skill. Peer and staff evaluation of our teaching of these skills was positive, confirming that the revised method was effective.

Discussions and conclusions
Sustainability within clinical skills and its implementation within teaching is possible. Due to the synergy between environmental, cost and time-savings, such innovation could have far-reaching effects. The precedent set could be expanded to encompass other commonly performed skills, with the potential for these to be incorporated within curricula. Instructors of clinical skills should take the opportunity to reinforce such ideas in their teaching, in order to foster future environmentally-friendly practice.

References
Factors that give rise to bullying in the workplace on doctors in training

I U Haq

I U Haq, Education & Training Department, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, NE7 7DN

Background
The 2012 GMC trainee survey showed that 4.0% of trainee doctors said they had been bullied and/or harassed in their post, and 1.1% said it happened every day or at least once per week. 1.6% said they had witnessed someone else being the victim of bullying and/or harassment in their post every day or at least once per week. 7.6% said they had experienced behaviour from a consultant or GP that undermined their professional confidence and/or self-esteem and 1.7% said it happened every day or at least once per week. Clearly the incidence of bullying behaviours remains unacceptably high. We sought to determine the factors that give rise to bullying behaviours.

Methodology
Doctors in training, who had experienced bullying behaviours, were invited to take part in the study via email. Ethical approval was obtained. Semi-structured interviews were conducted. Interview transcripts were analysed using a grounded theory methodology. Categories of factors that gave rise to bullying were determined and a model of the relationship between them was formed.

Results
The major categories identified within the data were as follows:
1. Traits related to the bully eg prejudice, lack of insight, inconsistent behaviour, stress and depression, lack of compromise, emotional detachment and insecurity
2. Traits related to the victim eg anxiety, timidity, weak knowledge base, poor confidence, job dependence
3. Interaction between bully and victim eg conflicting personalities, negativity
4. Other people present at bullying incident eg ignoring events, excusing behaviour, not understanding roles and responsibilities
5. Environmental factors eg organisational stress, competitive environments, large uncaring environments, organisational culture.

Conclusions
This study has demonstrated numerous factors that can contribute to bullying. Knowledge and awareness of these factors are potential targets for change to address the phenomenon and decrease the incidence. This will involve all staff, including the bully, victim, and third parties, as well as the culture of the organisation.
The effects of bullying in the workplace on doctors in training

I U Haq

I U Haq, Education & Training Department, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, NE7 7DN

Background
Bullying in the workplace may not only lead to distress, but may have detrimental effects on learning and training. It may even lead to issues of patient safety. Analysis of the 2006 national trainee survey showed that trainees who reported being bullied were more likely to report having made one or more serious medical errors in the last month. We aimed to find out the effects of bullying on junior doctors who had experienced the phenomenon.

Methodology
Semi-structured interviews were conducted on a purposive sample of junior doctors. Invitations were via email to all junior doctors in a large teaching hospital. The behaviours may have occurred at any stage of their training. Ethics approval was obtained due to the potentially sensitive nature of the subject. Interview transcripts were analysed using an interpretative phenomenological approach.

Results
Five categories of effects of bullying on trainees were identified:
1. Psychological factors eg stress, anxiety, vulnerability and depression
2. Emotional factors eg feeling frightened, feeling threatened, anger and social exclusion
3. Confidence and self-esteem, including feelings of hopelessness, worthlessness, leading on to avoidance behaviour
4. Behavioural changes eg change in motivation to work (working harder or less), increased defensiveness, more determined and resilient
5. Somatic symptoms eg weight loss, anorexia, lack of energy, sleep disturbance and headaches

Effects on training
Service needs took priority over educational needs, and training opportunities were thus denied. The trainees spoke of being afraid to ask questions, suboptimal performance because of anxiety, and not learning as they were in ‘survival mode’. This also affected their ability to make sound decisions due to fear of consequences.

Trainees spoke of poor supervision. This was either formal educational meetings where there was inadequate preparation or poor ‘on-the-job’ supervision where trainees were either left alone to cope by themselves, given tasks which they were not trained to carry out, or given repetitive, mundane tasks of little educational value. Trainees often started a job without knowledge of local policies and protocols.

For the main part, career choice was not affected in this self-selected group.

Conclusions
The effects of bullying on trainee doctors are wide ranging, and often extend beyond the workplace and they may significantly affect learning. Identification of these effects should alert one to possible bullying.

References
Introduction of a system for learning from clinical incidents in a large teaching hospital

I U Haq, S MacPhail, A Williamson

I U Haq, Education & Training Department, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, NE7 7DN

Background
Recording clinical incidents relies on people inputting data. Although this may work well from a technical perspective, it is not clear whether it is merely a repository of events, or whether it is used to its potential, ie to learn from the events.

One requirement of revalidation of junior doctors involves the recording of clinical incidents and of subsequent actions taken. Preliminary investigation into reporting in our trust via the established electronic ‘Datix’ system showed wide variations in reporting by directorate, and often no feedback of actions taken by directorate leads to those involved. This acts as a disincentive to record events. The start of revalidation was an opportunity to formalise the procedure and a driver to improve learning from events.

Methodology
A process was established whereby a senior doctor in each directorate was given automatic notification of ‘Datix’ clinical incidents which involved a junior doctor. If the event was other than trivial, the trainee and appropriate supervisor were notified so that a discussion about the event could take place. The process was discussed and agreed at board level and with educational leads. All trainees and supervisors were notified of the process. Supporting information was provided on the trust intranet. The process was introduced in September 2012. In November 2012, directorate contacts were emailed with a list of incidents that had occurred in their respective directorates over the previous month to determine what actions had been taken.

Results
Three of 21 directorates did not respond. 6 directorates did not report any events in the sampled month. This was because of natural variation, or a small number of trainees, although underreporting in some may have occurred. 8 had developed a good system of reporting, 4 were actively working on developing an efficient system, and 6 required additional assistance from the education team. Of those not acting on reports consistently, responses included lack of awareness of the project, not being convinced of the educational potential, only acting on repeated events, lack of knowledge about data entry, passing on the responsibility to others, and inability to follow through events due to lack of time.

Conclusions
A gradual and iterative approach is required before the process becomes embedded. Overall, there is greater awareness of the Datix reporting system, and its value in learning. Future plans include obtaining feedback on the process from trainees, and whether they found discussing the incidents useful.
Trainee doctors perceptions of behaviours that constitute bullying in the workplace

I U Haq

I U Haq, Education & Training Department, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, NE7 7DN

Background

Workplace bullying in the NHS is a frequent phenomenon. The healthcare sector in particular has a high incidence of bullying. In one study, 37% of junior doctors reported being bullied in the previous year, and this rose to 84% if at least one bullying behaviour in a 20 item list was included. Up to 96% of medical students report suffering abuse. The latest 2012 GMC survey showed that 4.0% of junior doctors in training reported being bullied more than once per month. This can have a direct effect on training and learning.

Definitions of bullying vary in the literature, but it is generally defined in terms of its effect on the recipient not the intention of the bully. Thus it is subject to variation in personal perceptions. It is important to determine what behaviours constitute bullying from the view of the trainee doctors themselves.

Methodology

Trainee doctors in a large teaching hospital trust who had experienced bullying behaviour were invited to interview via email. Semi-structured interviews were conducted and interview transcripts were analysed using a interpretative phenomenological approach. Categories of behaviours which constituted bullying were thereby formulated.

Results

Behaviours were grouped into five categories as follows:

1. **Acts of humiliation** eg shouting, inappropriate gestures, belittling, demeaning, accusing falsely, disrespecting and singling out
2. **Acts of omission** eg not communicating effectively including not communicating at all or not responding, lack of encouragement, concentrating only on negative aspects of performance, not supporting the trainee and ignoring
3. **Acts of exploitation** eg praying on vulnerabilities, coercing, picking on differences and asking for mundane tasks of little educational value
4. **Unrealistic expectations** eg expecting trainees to perform beyond their expected ability and giving the trainees impossible tasks
5. **Conduct** eg lack of compromise, behaving inconsistently, being emotionally detached, spreading unfounded information and lacking remorse.

Conclusions

Trainee doctors’ views on the behaviours that constitute bullying have previously not been sought. The present analysis shows that they encompass a broad range of behaviours that many may not have previously been considered as bullying. By identifying these behaviours, one can raise awareness and begin to modify them. This may lead to a reduction in bullying behaviours which can be measured in future surveys.

References

What’s in a name? The relationship between bullying, harassment and undermining among trainee doctors

I U Haq

I U Haq, Education & Training Department, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, NE7 7DN

Background
The GMC trainee survey has taken place annually over the past 6 years. There are currently 12 ‘indicators’ which are assessed, each made up of a composite of one or more questions. The indicator for ‘undermining’ consists of three questions which include two specifically on the frequency of being a victim of, and a witness to, bullying and harassment, and a third on the frequency of feeling undermined.

It has been argued that the questions in the survey are subjective, open to interpretation, and do not necessarily reflect reality. To understand what is meant by the results of these surveys, we need to explore what is meant by undermining, bullying, and harassment from the perspective of those responding to the surveys, ie the trainees themselves.

Methodology
Trainees who had experienced bullying behaviour were invited to interview via email. Semi-structured interviews were conducted with five trainee doctors at varying stages in their careers. Interview transcripts were analysed using a grounded theory methodology. Thus, a model of the relationship between bullying, harassment and undermining was constructed.

Results
Five main categories emerged from the data.
1. **Behaviour**: There was considerable overlap between behaviours. It was felt that harassment was more insidious, and perhaps more covert. Behaviours that constituted overt bullying were more wide-ranging, harassment and intimidation forming a subset of these behaviours.
2. **Frequency**: Bullying and undermining could be a one off event, or repeated and frequent. However, it was generally thought that harassment was a frequent more long-term phenomenon.
3. **Severity**: In general, bullying was felt to be more severe, undermining mild, and harassment somewhere in between.
4. **Power relationship**: Power was more prominent for bullying than it was for harassment or undermining. Most descriptions of bullying were from consultants or senior nurses, whereas harassment and undermining, more frequently than bullying alone, could arise from peers
5. **Intention of perpetrator**: all three behaviours could either be intentional or unintentional. Intent was felt to be stronger for bullying than for harassment or undermining.

Conclusions
This is the first time an attempt has been made to describe the relationship between the three. It is important to understand because it features as a specific question in trainee surveys. Despite the considerable overlap, the current study suggests that bullying, harassment and undermining should be assessed separately in surveys to account for the differences in perceptions. Their solutions or priorities to address them may be different.
Third year medical students’ experiences of the hospital out of hours

A Crees, N Ward

A Crees, Clinical Teaching Fellow, Royal United Hospital Bath NHS Trust, Bath, UK

Background and Purpose
General Medical Council (GMC) guidance on clinical placements for undergraduate medical students includes that students should spend some time “working shifts and out of hours”¹. Medical schools in the UK typically encourage these activities, and the University of Bristol Medical School is no exception².³. Existing literature has examined some aspects of the activities that medical students undertake out of hours (usually meaning after 5pm and before 8am), including the potential effects on patient safety⁴, student safety⁵, and student welfare⁶. There are few studies looking at the types of activities undertaken by students out of hours, the perceived utility of these, or the factors which encourage or discourage students from being in hospital at these times. This study will explore students’ experiences with regards to these areas.

Methodology
Ethical approval for this study has been obtained from the Faculty of Medicine and Dentistry Committee for Ethics at the University of Bristol. Four focus groups will be held in the early part of 2013, with the results and analysis being presented in July. Participants will be invited via email, and posters advertising the research will be displayed at the study sites. Each focus group will involve between four and eight participants, and will be a minimum of 30 minutes in duration. Two focus groups will be held at the Bath academy, and two at the North Bristol academy, with the intention of widening the range of student experiences discussed beyond those at a single site. Audio tapes from the focus groups will be transcribed verbatim, and the transcripts analysed for the predominant themes.

Results
The main themes arising from the focus groups will be presented, providing an insight into the activities undertaken by medical students in the hospital environment out of hours.

Discussion and Conclusions
The hospital environment varies considerably depending on the time of day and whether or not it is a weekend, not least in the number and type of clinical staff present. Medical students’ experiences out of hours are likely to differ in many ways from those within the normal working day. Discovering the activities which are actually undertaken by students, and their views on these in the wider context of their training, is the first step in working to optimise their learning at these times.

References
Doctors as Teachers: The experience and views of foundation doctors

VM Taylor, A Hawkins, M Masiello, K Jones

VM Taylor, Clinical Education Fellow, University of Bristol Academy, Great Western Hospital, Swindon

Background
Teaching is an integral part of medical practice, apparent in the Hippocratic oath and recognised by the GMC, which states that all doctors ‘should be willing to contribute to these activities’ (1). In our experience, junior doctors start to teach medical students and more junior colleagues very early on in their careers. Basic teaching skills, such as setting good objectives and providing constructive feedback are therefore important skills for junior doctors to learn. However, we suspect that very few have received any formal training in this regard.

Objectives
To determine the teaching practices, training levels and attitudes towards teaching amongst foundation year doctors.

Methodology
A paper questionnaire was distributed to foundation year 1 & 2 doctors in November 2012. We used closed questions, Likert scales and free space. The data was analysed using Microsoft Excel.

Results
Twenty-seven foundation doctors responded (17 FY1, 10 FY2). Of these, 93% (25/27) had informally taught either undergraduates or more junior colleagues since qualifying, while 63% (17/27) had formally taught undergraduate medical students and 26% (7/27) had formally taught more junior colleagues. We defined ‘formally’ as: ‘where you have organised and planned the teaching in advance’. The most common teaching methods were ‘one-to-one teaching or mentoring’ (81%) and ‘small-group teaching’ (59%). A third of foundation doctors (33%, 9/27) had completed an assessment for a more junior colleague.

In terms of training, only 14% (3/22) had received formal training in teaching skills & methodology, despite nearly all (95%, 21/22) stating that they would like to receive further training. All the training received had been at an undergraduate level.

In terms of attitudes towards teaching, 95% (21/22) agreed with the statements ‘I enjoy teaching’ and ‘I feel teaching is part of my job’. However, only 46% (10/22) agreed that they felt ‘adequately trained’ in this regard.

Conclusion
This study has demonstrated a gap between what is expected of junior doctors and the level of training they have received in teaching skills. We also noted the enthusiasm of junior doctors for formal training. In order to address this “knowledge gap” we have introduced a short course in Medical Education for undergraduates at the Academy.

References:
GMC: Good Medical Practice: Available at: http://www.gmc-uk.org/static/documents/content/GMP_0910.pdf, Accessed 20/12/2012
Gender differences among medical students learning pelvic examination with and without clinical teaching associates

K Jones, S Mathew-Lynn, M O'Sullivan, A Sinah

K Jones, University of Bristol Academy, Great Western Hospital, Swindon

Objectives
To determine whether the teaching of pelvic examination by Clinical Teaching Associates (CTA)\(^1\) is equally beneficial for male and female medical students, and whether this influences the number of patients students subsequently examine during their clinical placements in Obstetrics & Gynaecology.

Methodology
CTAs are lay women who have been trained to teach gynaecological consultation skills and pelvic examination using their own bodies. The Medical Academy at the Great Western Hospital, Swindon takes students from The Universities of Oxford and Bristol for obstetrics and gynaecology placements. Students at Oxford are taught by CTAs while those at Bristol are not. A questionnaire was sent to all the medical students who completed an obstetrics and gynaecology placement at Great Western Hospital, Swindon, between September 2009 and November 2011 (n=120). The students were asked to identify their gender and the number of pelvic examinations they performed during the placement in Swindon.

Results
A 44% response rate was achieved (Bristol n=31, Oxford n=22). Students who had not received CTA teaching (Bristol) did not report a significant difference in the number of examinations performed by male and female students. However, male students who have been taught by CTAs (Oxford) go on to examine significantly more patients during their clinical placements (p=0.02). No significant difference was found in the number of examinations performed by female students after teaching by CTAs.

Conclusions
Teaching by CTAs has a greater impact on male medical students in terms of subsequent engagement with their clinical placements, as measured by the number of pelvic examinations performed. CTA teaching may therefore be disproportionately beneficial to male students. This may also represent a confounding variable and potential source of bias with implications for future research into the use of CTAs.

References
Developing electronic resources to support the delivery of a simulation course to medical students

A M Dean, A J P Lewington

A M Dean, Leeds Institute of Medical Education, University of Leeds, Level 7, Worsley Building, Clarendon Way, Leeds, LS2 9NL, UK

Background and Purpose
The University of Leeds has developed the Recognising and Responding to Acute Patient Illness and Deterioration (RRAPID) programme in response to reports such as the National Institute for Health and Clinical Excellence (NICE) clinical guideline 501. The philosophy of the RRAPID programme is to emphasise timely and rapid response to the acutely ill patient and equip undergraduate and postgraduate medical trainees with the appropriate skills to manage such patients. A specialist team of consultant physicians and clinical educators have developed the RRAPID iPhone app and eBook to provide mobile and interactive resources suitable for this purpose. The eBook is a multimedia learning tool containing video and picture content, interactive patient scenarios, case-studies and a case-log feature. The app is complimentary to the eBook and provides a more concise tool ideal for use as a quick reference guide within the clinical setting. We hypothesise that these tools may enhance trainees learning in recognising and responding to acutely ill patients. Further, we predict that providing a case-log facility may increase the amount of acute patient scenarios that students report and reflect upon.

Methodology
The RRAPID eBook and app were launched in the App Store for free international download on the 1st January 2013. Prior to receiving both resources, 640 students across all years of the MBChB degree at the University of Leeds filled in a questionnaire detailing their current eBook, app and case-log use. In late spring 2013 the second phase of evaluation will begin, assessing how students have utilised both resources. Questionnaire and interview data will be gathered.

Results
Prior to RRAPID eBook and app release, 24% of students were using non-fictional eBooks on at least a weekly basis. Similarly, 48% of students were using mobile apps as part of their medical training at least weekly. In contrast, 96% of students use the internet at least weekly to enhance their medical learning. Only 16% of students reported that they always or often keep a log of interesting (anonymous) patient presentations that they have observed, 41% indicating they never do this.

Discussion and Conclusions
Only some Leeds students currently harness eBook and mobile technology on a regular basis to enhance their medical training. However, internet based enhancement is ubiquitous. The majority of students do not currently keep a paper or electronic record of acute patient presentations. We shall report our findings following the second phase of evaluation in July 2013.

References
How confident are our final year medical students? Assessing student confidence prior to starting an extended shadowing programme at the University of Bristol

A Hawkins, K Forbes, V M Taylor, M Masiello, A E Stanton

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

Background and Purpose
In the summer of 2012, the General Medical Council (GMC) and Medical Education England (MEE) introduced a compulsory minimum period of 4 days shadowing for newly qualified doctors before beginning their Foundation Year 1 posts in order to reduce error rates. There is little research examining the impact of longer shadowing programmes for medical students on clinical confidence. In 2011-2012, a 10-week programme of shadowing (Student Assistantship), split between medicine and surgery, was introduced for final year medical students at the University of Bristol. Previous cohorts had shadowed for two weeks only. The aim of this prospective study is to ascertain the extent to which the programme improves students’ confidence in a range of areas relevant to commencing work as a Foundation Programme doctor.

Methodology
All medical students in their final year at the University of Bristol in the academic year 2012-13 were contacted in January 2013 (at the start of the assistantship) with a link to an online survey. Questions comprised semantic differential scales and free text boxes. Students were asked about their initial confidence in a range of areas including prescribing, procedures, patient management, communication and aspects of palliative care, death and dying. Between January and March 2013, each student will undertake a 10-week placement shadowing Foundation Doctors. Once the students have qualified, we will send another online questionnaire to assess the impact of the programme on confidence as a junior doctor. Statistical and qualitative analyses will be performed. Full ethical approval has been granted by the University of Bristol Ethics Committee.

Results
We will be presenting the results of the pre-shadowing questionnaires. We will analyse the degree of confidence students have in a range of key skills prior to beginning their shadowing attachments, and present how this will refine the aims and objectives of the assistantships.

Discussion and Conclusions
The shadowing process has been suggested to improve confidence and reduce error rates prior to starting work as a Foundation Doctor. This is the first University-wide study analysing student confidence prior to and after a shadowing programme. We will present our conclusions in light of the findings provided above.

References
Developing an evening teaching programme for final year medical students

A Hawkins, V M Taylor, M Masiello, K Jones

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

Background and Purpose
Traditionally, the majority of teaching for medical students has been delivered during daylight hours. However, there are a number of constraints on the amount of teaching that can be delivered during the day. Final year students need to spend as much time clerking and practicing their clinical skills as possible, and junior doctors have ever-increasing demands on the time they spend at work during the day\(^1\). The aim of this study was to assess the impact of developing an optional evening teaching programme delivered by junior doctors out-of-hours at the University of Bristol Academy at Swindon.

Methodology
The teaching programme consisted of one to three sessions each evening, run by junior doctors. The programme was supervised and co-ordinated by the Clinical Teaching Fellows. A range of topics were covered, including OSCE-specific revision, medicine, surgery, bedside teaching and orthopaedics. The programme was established in September 2012 and continued for 3 months, until the start of the students’ finals examinations. In order to assess the value of the teaching programme we used Likert scales and ‘focus groups’. There were 2 focus groups on consecutive days with 5 and 3 students respectively, until data saturation was reached. The same facilitator ran the focus groups on each occasion. Written consent was obtained from each student to record and use their anonymised feedback.

Results
The mean scores for the extent to which the evening teaching programme improved student confidence and was a valuable addition to the teaching programme were 6.6/10 and 7/10 respectively. A number of themes emerged through qualitative analysis. Students particularly appreciated being taught by junior doctors as they thought that these sessions were pitched at the right level. The key ‘added value’ provided by the sessions was reinforcement of learning, small group sessions, approachability of teachers, a ‘real-life’ perspective, curriculum focused sessions, choice and flexibility. Students became more focused in their studies and selective about their choice of sessions as exams approached.

Discussion and Conclusions
Overall, the evening teaching programme at Great Western Hospital provided a valuable additional teaching resource for final year students. In future, we will aim to incorporate more clinical specialities including obstetrics and gynaecology and paediatrics into the programme.

References
Undergraduate Education
Exploring medical students perceptions on preparedness for becoming a first year graduate doctor after undertaking a prolonged assistantship

EG Lightman, SJ Kingdon, M Nelson

EG Lightman, Academic Foundation Year doctor, London Deanery

Background and Purpose
The transition from medical student to junior doctor is challenging and stressful\(^1\). Adequate preparation during medical school is crucial for a smooth transition into the role. Tomorrow’s doctors\(^2\) expects students to undertake an assistantship; during which they will gain experience ‘shadowing’ a Foundation trainee.

Sheffield Medical School responded to this document by initiating a 6 week student assistantship whereby all final year medical students worked with Foundation trainees in the Yorkshire and Humber deanery. This qualitative study aimed to explore the perceptions of these students on their preparedness for clinical practice.

Methodology
Final year medical students undertaking the 6 week student assistantship program responded to a short questionnaire about their anxieties towards their FY1 year. Subjects were purposefully sampled and semi-structured interviews (SSI) were conducted with 20 participants. The SSI explored their experience of the student assistantship program and how their anxieties about becoming an FY1 were affected. Interviews were transcribed verbatim and thematic analysis carried out.

Results
The majority of students described a positive experience; they felt valued as a team member and were given appropriate responsibilities which enabled them to gain confidence in their ability to perform their future role. Major themes included: anxieties in becoming a doctor, including risk of causing harm, prescribing errors, the workload and their competence in practical skills. When discussing the assistantship itself, common themes included: appropriate learning goals, level of supervision, prescribing, and managing acutely unwell patients.

Discussion and Conclusions
Medical student assistantships clearly improve preparedness and confidence in the transition to junior doctor. They enable supervision of stepwise responsibility, an improvement on the huge jump in responsibility piled on junior doctors at the point of graduation. Students should create learning reflexive goals for their assistantships, a precursor to reflective practise expected of them in order to get the most out of the placement. Assistantships must tailor teaching sessions to lessen anxieties surrounding identified topics including prescribing and how to approach the acutely unwell patient. The gold standard we should strive for is to create a nationally cohesive programme allowing students to undertake at least part of this shadowing assistantship their prospective job, in any part of the country.

References
\(^1\) Matheson, C., Matheson, D, 2009. How well prepared are medical students for their first year as doctors? The views of consultants and specialist registrars in two teaching hospitals. Postgraduate Medical Journal. 85, 582-9
\(^2\) General Medical Counsel. Tomorrows Doctors. London GMC 2003
How does the perception of a ‘sick patient’ change with experience? A comparison of the views of third year medical students, fifth year medical students and foundation year 2 doctors

D Mann, A Youssef, J Muhlschlegel, P Fletcher, C Rodd.

D Mann, Clinical Teaching Fellow, University of Bristol at Gloucestershire Academy Gloucestershire Royal Hospital, Great Western Road, Gloucester. GL1 3NN

Background and Purpose
This study has been granted ethical approval.

By the end of medical school, new graduate doctors should be able to provide initial management for acutely unwell or ‘sick’ patients1 – a patient population that medical students and junior doctors are known to lack confidence around.2-4

The purpose of this study is to establish if and when medical students and foundation doctors become more comfortable around sick patients, and how attitudes and opinions change with different levels of experience and training. Perceptions of year three medical students new to clinical medicine, final year medical students and foundation year two doctors are compared.

Methodology
Third year and fifth year students studying medicine and surgery and F2 doctors working in Gloucestershire Hospitals NHS Foundation Trust were recruited to take part in focus groups discussing what the term ‘sick patient’ meant to them and their feelings around these patients. The data from the focus groups were transcribed and analysed thematically. The themes that were found from this analysis were used to create a questionnaire issued to all participating students and F2s.

Results
Initial results show a great disparity between the type of patient that third year medical students’ consider to be ‘sick’ compared to F2 doctors and a great difference in confidence around seeing these patients. The year five students’ opinions fell between those of the other two groups. Further results will be presented to demonstrate these differences in more depth.

Discussion and Conclusions
Students appear to develop a more professional opinion about which patients are considered to be ‘sick’ the longer they have been in training. Their worries and anxieties also shift. Knowing how students’ attitudes differ as they progress through training is important for educators to take into account when facilitating the students’ transition into doctors.

References
Qualitative Analysis of Undergraduate Psychiatry Experience at the University of Bristol

N Taylor, G Morris

N Taylor, Clinical Teaching Fellow, Avon and Wiltshire Partnership Trust, Jenner House, Chippenham, Wiltshire

Background and Purpose
The ongoing recruitment crisis in psychiatry has prompted research into modifiable factors that influence medical students when considering psychiatry as a career. Among those factors is the experience of psychiatry as an undergraduate\(^1,2,4,5\), and the resulting perception of psychiatric patients and staff\(^1,2\). Psychiatry is currently taught in the 3rd year of the University of Bristol’s 5 year Undergraduate Medicine Course. This 9-week block runs 4 times through the academic year, and is taught at 8 different Clinical Sites. At each of these sites, the infrastructure of teaching and the clinical experience is different.

We will use the differences in experience to attempt to extrapolate the difference between a good and a bad undergraduate psychiatric experience. This then feeds into the choices of medical specialty, as well as giving us information to improve the undergraduate psychiatry experience for all students.

Method
Much previous research has used questionnaires and surveys to get data\(^2,3,5,6\). We postulate that a series of focus groups will be better able to harness the rich qualitative data we believe is available.

These groups will last for 60-90 minutes, and will be chaired by a non-psychiatric investigator: Dr George Morris. By working through a semi-structured questionnaire, and asking open follow up questions, we will be able to explore the issues outlined above. The reflections of Dr Morris will also form part of our data.

Results
We hope to present the results, our reflections and any improvements made in the next 6 months.

References
Are medical schools in-touch with their students real concerns?

A Youssef, J Muhlschlegel, D Mann, P Fletcher, C Rodd

A Youssef, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucestershire, GL1 3NN

Background and Purpose

This study has full ethical approval.

The current pressure on medical students is intensifying with an increasing focus on professional behaviour and fitness to practice\(^1\). This is in addition to the stresses of rising student debt, risk of “burnout” and depression-related issues. With student debt high, and tuition fees rising in the next few years\(^2\), it is logical to assume that more medical students than ever before will at some point endure a period of difficulty during their studies.

Psychological distress is high amongst medical students\(^3-4\). On a personal level this maybe seen in substance abuse and relationship breakdown\(^5\). Compared to law students, medical students score higher on personal disease perception\(^6\). Professionally this may translate into abnormal ethical conduct or professionalism issues\(^5\). Medical schools are responsible for providing pastoral care and support to their students as laid out by the GMC\(^1\). Deans and other Faculty face these issues on a daily basis. It is not clear whether these problems are at the extremes of medical student morbidity, or are there more frequent problems that bubble under the surface for many students undetected.

Methodology

Qualitative data were generated from focus groups with medical students, on clinical rotations in the Gloucestershire Academy. The focus groups’ discussions were based around what the students felt were the major issues/concerns affecting themselves and their colleagues during their clinical years. An online questionnaire was then generated on these main themes affecting medical students in their 3rd and 5th years at the University of Bristol. The questionnaire was also sent to the University of Bristol medical school Faculty for their views.

Results

Results from the questionnaire and analysis within the framework of the concerns identified by the clinical medical students will be presented.

Discussion and Conclusions

We identified the main concerns of third/fifth year students, and established whether the medical school was aware of them. It is vital there are no mismatches, so that when present they are addressed; understanding the differences and similarities in and between the groups is essential for student welfare and professional development. Furthermore the data were analysed to identify any differences between 3rd and 5th year medical students – i.e. those that have just commenced their undergraduate clinical training compared with those that are nearing its completion.

References

Do medical students learn more in teaching sessions if they have performed a pre-course assessment?

A Youssef, D Mann, J Muhlschlegel, P Fletcher, C Rodd
A Youssef, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucestershire, GL1 3NN

Background and Purpose
This study has been granted full ethical approval.

As a medical student I was often told that background reading prior to teaching would improve my understanding and uptake of knowledge during lectures. Required reading prior to teaching is designed to develop foundation knowledge enabling students to get more out of teaching sessions\(^1\). Despite this, some studies have shown that only 20-30% of students read assignments before class when requested to\(^2\). Pre-class quizzes have been associated with increased numbers of students who reported that they came to teaching sessions having read the pre-class materials\(^3\).

Students are too often disinclined to perform pre-course reading (be that assigned or non-assigned), despite teachers implorating them to do so. In the general educational literature, studies have shown that pre-class quizzes are associated with “increases in both the number of student questions and comments made at the beginning of the class\(^3\).” We wanted to specifically investigate whether medical students take in more teaching if they have performed a pre-course quiz prior to their seminars, rather than simply reading the literature.

Methodology
Third year medical students at the Gloucestershire academy were enrolled onto the study and were randomly allocated into two equal groups. The research took place during their curriculum core seminars in which all the students participate. The pre-seminar quiz involved completing a multiple-choice assessment (related to the core seminar topic) issued to one group. Both groups would attend the same seminar and then complete an identical post-course quiz (but content different to the pre quiz.) To ensure equal learning opportunities, a randomised cross-over design was implemented: for example, group A had the pre-course intervention for the first two seminars, and then only group B had the pre-course intervention for seminars 3 and 4. The students’ seminars are based on core topics set centrally by the University. The data were then analysed (including t-test analysis) and interpreted.

Results
Results from the assessments and analysis will be presented along with its implications for future undergraduate medical training.

Discussion and Conclusions
There is little information in the medical literature with regard to this topic. We wanted to investigate whether pre-seminar assessments improve teaching uptake in medical seminars. Did this activate student’s prior knowledge within the seminar, influence participation, elaboration and in turn stimulate active learning?

References
The development of a structured tool to guide ward-based teaching

A Watson

A Watson, University of Dundee, School of Medicine, BMSc ‘Teaching in Medicine’, The Mackenzie Building, Kirsty Semple Way, Dundee, DD2 4BF

Background and Purpose

Ward-based teaching sessions (directed at junior students) carried out at Dundee University provide unique opportunities for students that differ from other educational aspects and may not arise out with a teaching hospital. The sessions allow students to see aspects of everyday practice in action bringing potential to model professionalism, enhance clinical reasoning and demonstrate cultural norms of medical practice. (1)(2) However, experience and anecdotal evidence would appear to suggest an existing inconsistency in quality of these ward-based sessions taught at Dundee University. The aim of this project is to find out what students think makes a successful ward-based teaching session and work towards developing a tool that could have the potential to enhance these sessions, giving tutors a structure to follow if they wish, and reduce variation in teaching received by students. Guidance on what makes an effective ward teacher can be found in the literature surrounding this topic, however there would appear to be a gap in the literature on ‘how (ward-based teaching) is best done’(3)There appears to be a recurring theme in the literature suggesting that a ‘deliberate and planned approach to bedside teaching will make learning more effective’(1)reinforcing the potential this project has in producing a tool that could aid the organisation and structure of the ward-based sessions, ensuring less variation across teaching sessions and a fair experience for all students.

Methodology

The project will involve carrying out focus groups with students to discover their experiences of ward-based teaching, what made successful sessions successful and what made unsuccessful session unsuccessful. Focus groups will be carried out until saturation is reached if this is permitted by the number of volunteers. The project will use the information gained from the focus groups and aims to produce a tool that will provide a suggested structure to inform ward-based teaching sessions. This will be sent out in an email to teachers (experts) that are involved in carrying out the ward-based teaching sessions seeking opinion about the utility of the tool.

Results


Discussion and Conclusions


References

Does mentoring increase confidence amongst third year medical students?

R Jones, M Gordon

R Jones, Clinical Teaching Fellow, Gartnavel General Hospital, 1053 Great Western Road, Glasgow, G12 0YN

Background and Purpose
The start of clinical teaching is a significant milestone for medical students. Pre-clinical structure is replaced by the less organised routine of ward rounds and bedside teaching. This transition period between pre-clinical and clinical training has been highlighted as one of the most stressful experiences faced by the undergraduate. Third year medical students at Glasgow University recently reported lacking in confidence during their first ward-based clinical attachment. A mentoring programme was suggested as a potential way to overcome this. Mentoring of medical students by a more experienced senior colleague has long been part of the traditional master-apprentice model in medical education. This has been shown to enhance professionalism and performance of medical students. Furthermore, mentored students rate their overall wellbeing as higher. The last few years have seen a marked increase in the number of publications on the subject of mentoring. However, these studies have not specifically addressed the effects of mentoring on confidence amongst medical students; an issue which has been highlighted by the local undergraduate population.

Methodology
Third year medical students undertaking a fifteen week clinical attachment at a Glasgow teaching hospital were assigned a foundation doctor as their mentor. Mentors were given specific guidance as to the expected level of contact between themselves and their mentee. A questionnaire was issued to the students at the beginning and end of the fifteen week period, evaluating how confident they felt in relation to various aspects of their clinical attachment. The questionnaire used a ten point Likert scale for evaluation.

Results
Results of the study upon its completion will be presented with conclusions.

Discussion and Conclusions
Informal feedback during the study suggests that mentoring is a positive tool for third year medical students. However some barriers have been highlighted. Identifying a mentor is increasingly challenging as medical school class sizes increase and clinical rotations shorten. Furthermore, European working time directive limitations have resulted in erratic shift patterns and frequent job changes. Thus it is difficult to sustain a lasting mentoring relationship. Results from the ongoing study will help to clarify whether mentoring is an effective tool in increasing levels of confidence amongst medical students.

References
3. Ashley EA. Medical education- beyond tomorrow? Medical Education, 2000; 34: 455-459
A First Aid Course for Senior Medical Students

EA Semple, S Murdoch, S Tracey

EA Semple, 5th Year Medical Student, Highland Medical Education Centre, Old Perth Road, Inverness, Scotland

Background and Purpose
Medical students may be assumed to be competent in first aid by members of the public and ‘provides basic first aid’ is a learning outcome from Tomorrow’s Doctors (1). However medical students often do not feel confident or competent in first aid skills.

The aim of this study was to investigate if the confidence of 4th year medical students in their first aid skills could be improved by providing further first aid teaching.

Methodology
A self-study, computer assisted learning (CAL) package and a taught pre-hospital first aid course were designed and piloted with a group of 4th year medical students. For the self-study package, some of the materials were produced specifically for the package while other elements used commercially produced materials from the British Red Cross and St John’s Ambulance. The pilot of the taught course was split over 2 evenings and small groups of students focussed on the practical aspects of specific pre-hospital first aid topics.

The confidence of the students in administering first aid before and after the course was assessed with questionnaires using Likert-style questions (1-5). The students were also asked to complete a course evaluation questionnaire to assess the acceptability of the course. A Mann Whitney U-test was used to compare the pre-course scores of students with first aid experience with students without first aid experience and to compare pre-course and post-course confidence of the students.

Results
14 students attended the first evening and 15 attended on the second evening of the pilot of the course. 9 of the participants had previous first aid experience which they gained outwith medical school. In 13 of the 22 categories on the questionnaire the students with experience were no more confident than those without experience. Confidence of the students improved in 19 of the 22 categories after the course compared with before the course.

5 participants completed the course evaluation questionnaires. The students found the self-study materials and teaching sessions useful. Some of the students experienced technical problems with the self-study materials. The students found the face to face teaching sessions most beneficial.

Discussion and Conclusions
Student confidence in their pre-hospital first aid skills was improved by the course and the teaching received very positive feedback from the students. The students found face-to-face teaching more useful than self-study materials.

References
1. Tomorrow’s Doctors, GMC, GMC/TD/0909, 2009
What makes a successful applicant for Post-foundation Training? The opinions of Year 3 and Year 5 medical students, Foundation Year 2 (FY2) doctors and University Faculty

J Muhlschlegel, A Youssef, D Mann, P Fletcher, C Rodd

J Muhlschlegel, Clinical Teaching Fellow, Gloucestershire Academy, University of Bristol, Gloucestershire Royal Hospital, Great Western Road, Gloucester, GL1 3NN, UK

Background
An early understanding of the requirements for post-foundation training applications is vital for junior doctors as they apply within 16 months of qualification. These posts are highly competitive. In 2011, the mean number of applicants per post was 2:1, with surgical specialties remaining the most competitive (neurosurgery at 10:1).\(^1\) Developing a competitive portfolio, that reflects a subject specific interest, and attaining all the person specifications is both challenging and time consuming. Therefore, applicants need to prepare as soon as possible – potentially even in medical school. Knowledge of what constitutes a successful applicant is fundamental for both the students and their educators to help students realise their potential. Little research has investigated students’ awareness of these requirements. We compared the opinions of students, foundation doctors and Faculty involved in both medical education and specialty training applications. This information will help us to tailor professional training to maximise future graduates’ potential.

Methodology
To understand what constitutes a successful applicant qualitative data were generated through a series of interviews with members of Faculty from a variety of clinical specialties and responsibilities throughout Severn Deanery. Using information gained, focus groups were conducted with Year 3 and Year 5 students and FY2 doctors. These focus groups generated themes used to develop a questionnaire for gaining quantitative data on this subject.

Results
Opinion on what constitutes a successful applicant varied according to year group. Year 3 students are aware that post-foundation posts are competitive and believed that audit, publications and presentations were the most important criteria to have fulfilled. They did not think it was necessary to begin preparing in Year 3. Final year students and foundation doctors, thought that exposure to specialty, attending conferences and developing relevant skills were necessary. Within ALL groups, opinion varied significantly on whether foundation jobs needed to include their chosen specialty. Few juniors valued the importance of generic professional skills, including leadership, team-working and communication, in comparison with Faculty, who described these as of upmost importance. Quantitative results from the questionnaire outlining these views will be presented.

Discussion and conclusions
Post-foundation applications are competitive and students need to begin to prepare earlier than ever. Our study has shown that huge variability exists in the opinion of what criteria need to be fulfilled by application and hence, students are unclear as to what is required. Clear and consistent messages are necessary so students can harness their full potential in applications.

References
The use of low-fidelity simulation for teaching death certification skills
VM Taylor, M Masiello, A Hawkins, AE Stanton, M Juniper

VM Taylor, University of Bristol Academy, Great Western Hospital, Swindon

Background
Completion of the death certificate is the legal obligation of the treating doctor. The information provided is used in epidemiological studies and may influence public health policy and allocation of health resources. However, death certificates are often completed incorrectly (1). In a recent local audit, only 12.5% of junior doctors felt adequately trained to complete a death certificate (2). There is a growing evidence base for the use of simulation-based teaching (3) and low-fidelity simulation can be equally beneficial (4). We have previously shown this method to be effective in teaching prescribing skills (5), another area in which junior doctors often feel under-prepared (6).

Objectives
To determine whether low-fidelity simulation can be used to improve the competency and confidence of final year medical students in accurately completing death certificates.

Methodology
We have designed a practical tutorial teaching death certification for the 36 final year medical students placed at our academy. Students will be asked to independently complete a death certificate for a series of simulated cases. After each case, the certificates will be collected in and the answers discussed. We will count the errors on the certificates, comparing between cases to determine whether an improvement has been demonstrated over the course of the tutorial. We will also assess student confidence in completing death certificates before and after the tutorial, using Likert scales.

Results
A comparison of the number of errors made before and after teaching will be presented as will the results of the students’ self-assessed confidence scores, which we will analyse with appropriate statistical tools.

Discussion and Conclusions
Skills such as death certification can be difficult for students to learn and yet as foundation trainees, they are expected to be proficient from day one. It is our job, as medical educators, to find the best ways of imparting relevant knowledge and skills in a safe environment. We will determine whether a little extra effort in tutorial design, in particular the use of low-fidelity simulation, can result in effective learning in this area.

References
Students helping students: a student run, peer-assessed mock OSCE

G Goodyear, K Nettleton, A Beardmore-Grey

G Goodyear, University College London Medical School, London

Background and Purpose
UCL Obstetrics and Gynaecology Society is an undergraduate society for medical students. We aimed to target the unmet need for better revision opportunities in preparation for the clinical specialty exams. Society members designed and executed UCL’s first student run mock OSCE in Obstetrics and Gynaecology. The benefits of peer assisted learning are already well recognised by students, but there is a need for more formal publication of the research demonstrating its value1.

Methodology
OSCE station scenarios and standardised mark schemes were researched and written by student committee members, who then acted as examiners during history and communication stations, or invigilators. Staff examiners were recruited to assist with more complex stations to maintain high-level teaching. The circuit consisted of ten stations each lasting five minutes with two minutes for feedback. It ran twice in one evening to allow 50-60 students to take part. Candidates moved in pairs (or threes) around the circuit and alternated between being assessed and observing their paired partner. Places were allocated on a first come first served basis. These sessions were arranged three times in the year: 170 students took part. A brief feedback questionnaire was given to each candidate at the end of the exam: it contained Likert scales assessing usefulness, organisation, change in confidence and a space for free text.

Results
A 100% response rate was achieved. Results were combined for all six OSCEs: 77% of students found the session ‘useful’, 94% thought the session was ‘very well organised’, and 81% felt ‘much more’ or ‘very much more’ confident about attempting the real exam. Themes also identified: ‘student teachers were better than the doctors as they have OSCE experience’ and ‘when you’re with another student, there’s less pressure and you’re more able to perform’, in response to our paired candidate system.

Discussion and Conclusions
Our project demonstrates that students are able to design, write and execute a mock OSCE that candidates felt was a useful, confidence building experience. Space and time limitations meant that although 170 candidates were involved, this amounts to one third of the year cohort. The success of this project was noticed by the UCL clinical module leads and has since been integrated into the curriculum for all students, as a formal compulsory mock exam.

We would like to acknowledge the help of Dr Jonathan Cartledge and Miss Melissa Whitten (UCLH)

References
When and how do medical students become aware of the role as medical teachers?

T Saiki, P Evans, N Ban

T Saiki, Medical Education Development Centre, Gifu University, Gifu, Japan

**Background and Purpose**
Teaching-skills are essential techniques for all health professionals. Various studies from UK, Canada, US show the effectiveness of the programs, mainly in the final year, for preparing medical students to teach 1. Our previous study suggested that some students want to learn teaching skills even earlier in the undergraduate curriculum 2. Little is known how such opportunities should be delivered in the pre-clinical years. The purpose of this study is to explore pre-clinical medical students’ perspectives towards the development of the role as medical teachers.

**Methodology**
This study used an qualitative approach using focus groups. Five focus groups with the Japanese undergraduate students were conducted to explore their views on when and how they become aware of their interests as well as teaching role as medical teachers. Focus groups of UK undergraduate students in years 2 and 4 were conducted to explore their views on learning how to teach. The data was recorded, transcribed fully and analyzed by two independent researchers with using thematic analysis.

**Results**
In summary, Japanese students 1) want to have distributed “just-in-time” programs to prepare as teachers corresponding to their learning in clinical subjects. 2) the years in which liberal arts are taught were regarded as an inappropriate timing for the program to take place, but teaching competency as an outcome for physicians should be clearly outlined even in early stages. Additionally, 3) concrete teaching experiences related to their own learning, as well as the teachers they encountered as role models, unconsciously stimulate the awareness of the educational role and intrinsic motivation to become an excellent teacher. The UK students were already comfortable with shared learning techniques (problem-based and peer-assisted learning), but wanted to learn how to manage the teaching of others (skills teaching, and bed-side teaching).

**Discussion and Conclusions**
Some of the student’s perspectives fit with the reports 3 in the literature about becoming a medical educator. There are interesting cross-national comparisons to be made. This study adds to what is known about the student’s positive views of the possibility of placing a program to learn teaching skills in earlier stages such as pre-clerkship years. Themes, such as taking advantage in opportunistic learning events, practical experiences in teaching, and evaluating role models, may take a major part in stimulating their awareness of the skills of teaching. This study sheds the light on the gradual but effective development of students’ awareness of the importance of medical education.

**References**
A highly organised clinical undergraduate firm – an ‘old-fashioned’ concept re-evaluated in the modern era

IG McIntyre, I Pearce, SR Payne, RD Napier-Hemy

IG McIntyre, Consultant Urological Surgeon and Associate Hospital Dean, Manchester Royal Infirmary

Background and Purpose
There have been many recent changes in the delivery of undergraduate medical education in the UK. These changes have resulted in a move towards self-directed learning in which medical students take more responsibility for their education than in previous years. Manchester Medical School has embraced these changes in its clinical teaching with extensive use of Problem Based Learning ¹ and a ‘sign up’ system ² in which students are given freedom to choose a proportion of their clinical activities. Most medical students thrive in such an environment but we noticed that a minority failed to engage with the process. We were invited to set up a new urology firm in 2007 and we took the opportunity to try to address these issues.

Methods
All four authors are consultant urologists in the same department. We set up a firm to teach groups of eight first year clinical students over a seven week period. RDNH devised a comprehensive timetable for each student including outpatient and operating theatre sessions and consultant-led bedside teaching. Every week IGM acts as PBL tutor, SRP teaches on general issues and RDNH and IP teach on urology topics. Students have an induction session at the beginning of the firm and are given formal written feedback at the end. They have to record their attendance at every timetabled activity. Teaching quality is assessed at the end of the firm by an administrator who gathers the students together and asks ‘what went well’ and ‘what could have been improved’.

Results
The firm has been a great success and the students invariably become part of the urology ‘team’. Almost all students fully engage with the firm and attendance levels are very high. Feedback from students is almost always extremely positive. A large majority of students like the strict timetable though a few find it restrictive.

Discussion and Conclusions
We feel that we have found a good balance between the ‘old-fashioned’ – a strict timetable and consultant-led teaching enforced with attendance registers, and the modern – PBL and student-selected sign ups. Our model of timetable/induction/feedback and 4 consultant teaching sessions per week has subsequently been introduced to established firms resulting in an improvement in their feedback from students.

References
2. Foster, M., Dorman, T., Self-Directed, integrated learning through a sign-up system. Medical Education 2003, 37(7) 656-659
Is current undergraduate orthopaedic education fit for purpose?

D Tennent, R Davies

D Tennent, Consultant Orthopaedic Surgeon, Honorary Senior Lecturer, St. George's Hospital, St. George's University of London

Background and Purpose
Musculoskeletal problems account for up to 27.8% of primary care complaints\textsuperscript{1,2} yet evidence suggests that both confidence and competence in graduates is poor in this subject area\textsuperscript{3}. The amount of curriculum time allotted to musculoskeletal medicine is disproportionately low in comparison to workload\textsuperscript{4} and the average UK medical students’ experience of orthopaedics is only 2.7 weeks\textsuperscript{2}. This study was designed to ascertain how well the needs of orthopaedic consultants, general practitioners and students are met as a baseline for future curriculum development, geared to providing for the junior doctor of tomorrow.

Methodology
There is currently no national orthopaedic curriculum. Questions were developed using key elements of the USMLE as well as the validated Freedman and Bernstein basic competency exam with additional questions related to the acquisition of surgical skills. Orthopaedic consultants, general practitioners and medical students were asked to rate aspects of this “curriculum” by importance using a 4-point Likert scale. Undergraduates were included as their perceived importance of musculoskeletal medicine reflects their level of cognitive mastery and clinical confidence\textsuperscript{5}.

Results
Results from the survey will be presented showing areas of consensus and disagreement between the three groups which illustrate areas of potential change.

Discussion and Conclusions
There is a need for an undergraduate curriculum that reflects the needs of both consultants and GPs. In view of the aging population and the expected increase in musculoskeletal workload as well as the overall decrease in spending for musculoskeletal services and trauma\textsuperscript{6}, it is more important than ever that orthopaedic education meets the needs of future practitioners. Current training is inadequate and needs modification to achieve this.

References
**Doctors as actors – using role play to improve history taking and communication skills amongst third year medical students**

R Soobrah, S Mallappa, N Patani, J Wright, JL Stevens, A Jethwa, J Pitkin

R Soobrah, Senior Clinical Fellow - Undergraduate Department, Northwick Park Hospital, Watford Road, Harrow, UK

**Introduction**

Actors/Simulated Patients (SP) have been used for many years and play a vital role in the formative education and summative assessment of medical students [1] and are generally linked to clinical or communication skills development. However, SPs are expensive for the training of communication skills and can cost up to £200 per day [2]. Their training time varies from 20 minutes to 40 hours [3]. We aim to explore the value of using experienced clinicians as actors in role-play scenarios for the purpose of teaching history-taking skills and improving communication skills amongst third year medical students.

**Methods**

Two cohorts of third-year students (n=88) participated in role-play teaching sessions during their 10-week clinical attachment. These sessions were facilitated by experienced Teaching Fellows (TF) who both acted as the patient and took overall charge of the sessions. A list of scenarios describing patients presenting with common medical/surgical conditions were created and used by all TF. Each week, students were randomly allocated topics from the list and were required to take a history from the clinician actor, as they would for an OSCE exam. Each session consisted of four history taking stations followed by a debrief period. Feedback questionnaires were distributed post-attachment.

**Results**

75% (66) had previous experience of role-play during their undergraduate training. Most students (99%) found the clinical scenarios were realistic and believable. All students agreed that these sessions were a useful addition to learning from ‘real’ patients and felt comfortable with the learning environment. Most students found that the debrief sessions enhanced their clinical knowledge (98%), felt more confident before sitting their OSCE exams (97%) and learnt from watching their peers perform during the scenarios (95%). A significant minority (26%) were worried about performing badly in front of their peers and their tutors (36%). There was a tendency for those students who had no previous role-play experience to rate the sessions more positively.

**Conclusion**

This innovative use of role-play teaching enhances both clinical knowledge and history-taking skills. Despite the fact that SP provide a high degree of realism and are very useful for teaching communication skills, they are still considered an expensive tool [4,5]. Our faculty of TF were all experienced clinicians and had appropriate training in medical education. In recent years, Medical/Clinical Teaching Fellows have become increasingly popular across the UK. This could represent a more cost-effective alternative in facilitating the acquisition of communication skills among undergraduate medical students.

**References**

Evaluation of a Pilot Communication Skills Workshop: Complex Communication Needs and Augmentative and Alternative Communication

C Chung, P Mckenzie, S Law, F Muir, A Waller

C Chung, uTCGP, Centre for Undergraduate Medicine, Medical Education Institute, University of Dundee, Dundee, Scotland, UK

Background and Purpose
Patients with moderate to profound communication impairment and their carers believe that they are treated differently from other patients and are at risk of injury or neglect as they cannot communicate effectively with hospital staff\(^1\). Despite guidelines about communication and disability in Tomorrow’s Doctors 2009\(^2\), and recommendations common to other literature\(^3\), many undergraduate medical curricula lack specific training about disability and augmentative and alternative communication (AAC). Following previous research by the lead researcher, this project will evaluate an innovative new workshop in which medical students will gain first-hand experience of communicating using AAC.

Methodology
A qualitative methodology using grounded theory analysis will be employed. Two groups of students who participated in a ‘pilot’ workshop will be asked, as part of a focus group, to review the workshop outcomes. In addition, a peer review focus group of those involved in the workshop delivery will be conducted and community stakeholders will review the training materials to provide an expert review. Focus groups will be video recorded and transcribed.

Results
The research will be carried out in January & February 2013 as part of an intercalated Teaching in Medicine degree programme. The results and discussion will be presented.

References
2. General Medical Council. 2009. Tomorrow’s Doctors: Outcomes and Standards for Undergraduate Medical Education. GMC. (http://www.gmc-uk.org/static/documents/content/GMC_TD_09__1.11.11.pdf) (Accessed on 9 November 2012)
Which Resources do Medical Undergraduates Currently Utilise in their Studies?

I Pearce, G Coleman, C May, A Sinclair

I Pearce, Central Manchester University Hospitals NHS Foundation Trust

Background and Purpose
Over the past 20 years, due to advances in technology, those in medical education are no-longer confined to solely using the traditional textbook for their learning. We aimed to assess how popular the medical textbook still is, to what extent these new technologies are being used, and in what form.

Materials and Methods
124 final year medical students in one university attending a urology revision day were asked to complete an anonymous questionnaire regarding the learning resources they currently use. 109 forms were returned, and of which, 4 were excluded as a result of being filled in incorrectly.

Result
Students rated text books followed by a web search engine as their most preferable resources, with 59% and 32% preferring them above all else respectively. On average, 84% and 68% of students had used the internet to assist in their studies within the last 48 and 24 hours respectively. 86% of the students had accessed a medical text book within the last two days, the most popular being the oxford handbook of medicine. The most popular device to own and use for study was the laptop, followed by an iPhone or other smart phones.

Conclusion
Whilst the medical textbook is still the resource of choice for most medical students, web-based resources are used as frequently. The vast majority of medical students use and own a laptop to access information for medical studies, and many use a smart-phone.
3D: The future of Medical Education?
K Loh, S Al-haddad, J McDonald, A Denison
K Loh, School of Medicine, University of Aberdeen, Aberdeen, UK

Background and Purpose
The face of medical education has seen an overhaul in recent years. The advancement of technology and the development of new platforms of teaching have paved the way for more innovative educational concepts and novel techniques of teaching. One such method would be the creation of 3D stereoscopic learning resources, which has been shown to greatly aid student understanding and knowledge of the subject taught¹. This project sought to create an interactive 3D case, to be delivered as a tutorial, which would include both anatomy as well as clinical pathology.

Methodology
Anonymised CT Scans of the Circle of Willis were collected and rendered into 3D stereoscopic 3D images using open-source software. These images were then annotated with interactive labels and brief descriptions. A clinical case focusing on subarachnoid haemorrhage was added to complement the 3D images. This was presented to second and third year medical students, whose feedback was then collected by means of a questionnaire at the end of the tutorial and evaluated.

Results
Results from the evaluation will be presented as will the case structure.

Discussion and Conclusions
The creation of interactive 3D case tutorials has exciting possibilities in the future development of medical education. In particular, it will benefit medical schools with a systems-based course where clinical teaching, pathology and anatomy are taught side by side. That said, the current 3D software used is limited in its ability to distinguish between tissues of similar densities. This limits the type of content that can be presented. In addition, there are limited numbers of 3D suites available in schools for projection of the 3D cases. However, as the software continues to advance and more funding is given for development of 3D facilities, it is hoped that a large library of 3D teaching resources can be amassed and added into the medical undergraduate curriculum in the near future.

References
Developing a Psychiatric History Taking and Mental State Examination Masterclass using the Delphi Technique

D M Bennett, M Rashid, L H Jones, Y Wang, M Moffat, I M Cameron

D M Bennett, Clinical Research Centre, Lower Garden Villa, Royal Cornhill Hospital, 26 Cornhill Road, Aberdeen

Background
Many doctors have a poor perception of psychiatry and this is linked to their appraisal of their own skills1,2. The primary aim of psychiatric teaching is to “equip future doctors with the knowledge, skills and competencies to assess and manage mental disorders to a standard appropriate to foundation year 13”. We wished to enhance the learning experience for students by introducing a master class on the psychiatric history and mental state examination. We used an evidence based approach by developing a master class based on sound pedagogical principles, examples of excellence from literature by means of a Delphi study4.

Methods
An expert group of educators drawn from the Scottish Teaching and Recruitment Group of the Royal College of Psychiatrists and from UK Medical Schools. The experts were initially interviewed (via telephone) and interviewed using a semi-structured schedule to ascertain their views on the topic. The interview was recorded and transcribed verbatim. A thematic analysis, aided by the ‘Framework’ method5, was conducted to identify themes. These were used to generate a questionnaire which was completed by the expert panel to achieve consensus on teaching content and methods of delivery. Simple descriptive statistics were used for analysis of the questionnaire data. A tutorial was designed based on the outcome.

Results
15 participated in the first phase and 10 in the second. Identified themes were the: format of teaching delivery; priority to be given to content; experience and qualifications of the tutor. 88.9% felt the session should emphasise the similarity between psychiatric and other history taking. 88.9% stated the optimum teaching method was a lecture followed by a small group session. 77% felt time should be evenly distributed between history taking and examination. Interviewing a patient in the tutorial was the top ranked method of delivery followed by a ‘simulated patient’. A consultant psychiatrist was preferred tutor of 55.6%, followed by a trainee psychiatrist and a GP with an interest in psychiatry. Formal teaching qualifications were not considered necessary. Consensus was reached on the content.

Conclusion
Using an evidence based approach to design a teaching session is feasible. This is the first study which demonstrates the optimal way to teach psychiatric history taking and mental state examination.

Reference
Maximising the value of the elective experience: post-elective workshops

R Evans, C Dotchin, R Walker

R Evans, Newcastle University Medical School, Framlington Place, Newcastle Upon Tyne, NE2 4HH, UK

Background and Purpose
Today, information, culture and disease can travel faster than ever before and global problems are requiring collaborative action. Consequently there is a need for medical curricula to prepare tomorrow’s doctors to work in these new environments, reflected in emerging academic discourse in the field of Global Health education delivery. Traditionally, medical electives have been the mainstay of undergraduate Global Health education but explicit educational value is unclear and often lost, due to inadequate preparation and review procedures.1

This workshop aimed to use shared reflection to maximise and consolidate medical students’ learning from their elective, particularly around global health issues. This aimed to capitalise on the unique opportunity provided by the elective.

Methodology
A pilot workshop was designed in which all final year students studying at one hospital (n=42) gave 10-15 minute reflective presentations to clinician facilitated sub-groups of 6-8 peers followed by an opportunity for questions, and discussion. Feedback was sought from individual questionnaires and finally, open discussion between the whole group. This was a half-day session.

Results
Despite participants’ variable satisfaction with the pre-elective procedure, all felt that the elective itself was a valuable and enjoyable part of their education and, moreover, all enjoyed and benefited from de-briefing in this workshop format.

Discussion and Conclusions
The workshops were simple and inexpensive to organise and required minimal preparation by staff. They therefore overcome perceived staffing and timetabling barriers to global health education and are to be recommended to all medical schools to afford students the maximum personal and professional benefit from their own and each other’s medical electives. These workshops shall be introduced across the medical school next year and the evaluations will be available in time for the ASME scientific meeting 2013.

References
1. Dowell J, Merrylees N. Electives: isn’t it time for a change? Medical Education 2009;43:121-126
'When the expected is unexpected' – medical student evaluation of learning during a simulated cardiac arrest scenario

G Vance, I Pooleman, V Whittle, R Searle, I Forrest

G Vance, University of Newcastle, Newcastle Upon Tyne Hospitals NHS Foundation Trust

**Background and purpose**

Medical graduates recognise, but feel ill-prepared for, the challenges associated with management of the acutely unwell patient [1]. Simulation offers opportunity for students to rehearse these management skills in the safety of the classroom, but in this guise it may not reproduce the unpredictability of emergency care situations in real-life. Accordingly, we devised an inter-professional patient simulator teaching session, which would recreate the unexpected and frenzied nature of a cardiac arrest call in order to expose learners to the challenges of the work place in a supported context.

**Methodology**

Peri-arrest simulated scenarios were devised for final year medical & nursing students. Medical students, who were based on the Emergency Assessment Unit [EAU] carried an ‘on call’ ‘phone and were informed that they could be called at any point to attend an unwell, simulated patient. During the scenario, nursing students (or session facilitator) made the initial assessment, sought help from the medical student by telephone and supported subsequent emergency care. Medical students were expected to attend the ‘patient’ in a timely manner (located 4 minutes from EAU), lead subsequent clinical management, including cardio-pulmonary resuscitation, and make an appropriate cardiac arrest call. Trained facilitators supported the session and gave feedback. Medical students completed an evaluation questionnaire. They also provided free-text comments. In this analysis, responses of ‘Strongly agreed’ and ‘Agreed’ are reported as ‘agreed’.

**Results**

Medical student feedback was obtained from 45 of 48 sessions, including 22 sessions with a nurse student. Overall, the exercise was well evaluated. The ‘on call’ session was valued over & above the classroom simulation programme (42 / 45 ‘agreed’). Being ‘on-call’ provoked anxiety (26/45 ‘agreed’) and acting as a first respondent was intimidating (22/45 ‘agreed’). Nonetheless, this was viewed as a positive experience, with 43/45 agreeing that they felt more prepared to start work as a Foundation Year 1 doctor. Inter-professional scenarios enhanced realism (21/22 ‘agreed’), perceptions of educational value (21/22 ‘agreed’) and development of leadership (22/45 ‘agreed’) & team-working skills (21/22 ‘agreed’). Free-text comments reflected ratings.

**Discussion and conclusions**

Using simulation to plan the ‘unexpected’ offers an authentic surrogate for the stress associated with on-call clinical emergencies. Undergraduate students value inter-professional learning in the simulated setting and report improved confidence for graduate practice. Further work is needed to understand the relevance for future clinical performance.

**Reference**

9 year follow up of Urology Undergraduate Education: A decline in exposure, satisfaction with teaching techniques, and consideration of urology as a career

I Pearce, E Elsaigh, N Lin, D Burke, T Gunendren, L McHugh, I McIntyre, R Napier-Hemy, K O’Flynn, S Payne, A Sinclair

I Pearce, Central Manchester University Hospitals NHS Foundation Trust

Introduction
Conventional lecture based teaching is in danger of being replaced by problem based learning (PBL). Undergraduate exposure to urology is continually diminishing resulting in a marked deterioration in urological knowledge and skills.

Methods
A conventional lecture based urological study day for final year medical students has been organised annually for the last 9 years.

Feedback was collected in the form of a standard questionnaire. Students were asked to score each lecture and their overall exposure to urology out of a maximum score of 10. They were also asked to score, whether they had ever considered urology as a career, and also their opinion of PBL compared to conventional lectures.

Results
1445 students have attended, 1357 providing feedback.

The mean score for all lectures was 8.77 (8.54 -8.91).

Only 1 student thought that PBL was the best form of medical education 79% preferred a combination of PBL and conventional lectures and 21% preferred lectures only.

Over 9 years urological exposure initially declined but has reached a trough of 1.78 (Max 10) and those considering urology as a career initially declined from 26% to 7.4%, but in recent years has increased back to 21%

Conclusion
There remains a role for more conventional teaching in conjunction with PBL.

Career pathways are being decided earlier, therefore undergraduate exposure to urology is essential to ensure competency and also to ensure that all students at least consider urology as a career.
Using Knowles theoretical principles of adult learning to design a lecture to enhance clinical skills

J Harris, H Tam, B Faber, S Mason, N Salooja

J Harris, General Practitioner and Deputy Head of Year 6, Imperial College Medical School, London SW7 2AZ

Background and purpose
Lectures play a large role in most undergraduate curricula but the opportunity to promote learning related to teaching principles is not always exploited. We delivered a two hour, large group lecture with the aims of 1) improving self-efficacy and 2) increasing confidence in relation to advanced history and examination skills for future F1 practice and the final year exam. To enhance learning, we designed the teaching using principles of adult learning proposed by Knowles, namely that adults learn better if teaching i) fosters self-direction, ii) incorporates participants' life experiences, iii) is relevant iv) problem-centred and v) linked to internal motivating factors.

Methodology
The students acted as examiners for a series of role-plays involving F1 doctors and actors mimicking common student-patient clinical interactions (relevant, problem-centred and fostering self-directed learning). Students were asked whether they would like to be looked after by the actor-doctor (incorporating life experiences and internal motivating factors) and to consider whether the individual would pass the final year PACES examination using anonymous clickers. Teaching was evaluated by questionnaire which included i) asking students what they would do differently as a result of the teaching (using reflection to foster further self-directed learning) ii) 5-point Likert scales on confidence (before and after) and iii) perceptions of adult learning principles used.

Results
164 students completed the questionnaires. 124 (76%) proposed positive changes to future clinical skills learning including practicing more (60), making notes on histories (18), speeding up (13), calming down (10) and better communication with patient (6). The median confidence in relation to reaching F1 standard rose from 3.01 to 3.34 after the teaching, with 56 students (34%) expressing greater confidence. Exam confidence rose from 2.71 to 3.15 with 79 (48%) more confident after teaching. Students perceived the teaching as relevant (80 /164 with score of 4 or more), goal orientated (89 /164) and practical (76 /164). However fewer felt the teaching drew on their life experiences (44 /164).

Discussion and conclusion
The large number of students making a positive change in approach to developing their clinical skills is a measure of the success of this session. Confidence increased for many students after the session in line with our aims but the high baseline confidence of some students tied in with a request to also highlight an exemplar standard. It remains a challenge to assist students to draw on personal life experiences in a lecture setting.

References
Sex, Gender and Self Directed Learning in Chilean Medical Students
P Parra, E Fasce, O Matus, C Pérez, L Ortiz, P Ibáñez

P Parra, Instructor, Faculty of Medicine, University of Concepción, Concepción, Chile

Background and Purpose
Due to the new demands that health professionals must face, medical education needs to encourage Self Directed Learning (SDL) in students and assess this competency in order to generate a lifelong learning ability. According to studies, there are differences between men and women, in their motivations, behaviours, strategies and learning styles. These variables influence SDL, so it could also be differences on SDL according to student’s gender and sex, constructs that are sometimes misunderstood. This study aims to analyze the relationship between sex, gender and SDL of Chilean first year Medical students (sponsored by regular FONDECYT #1110718).

Methodology
Study quantitative, non-experimental, and cross-sectional which analyzes the relationship between the score of the Fisher, King & Tague Self-directed Learning Readiness Scale (EPAI); Barra’s Sexual Role Inventory and the reported sex in an intentional sample of 107 first year Medical students from the University of Concepción, cohort 2012, 64.5% male, average age = 19.3, with previous informed consent. Analysis: descriptive of scores of the used instruments; evaluating their internal consistency (Cronbach’s Alpha); correlation between both scales scores (Pearson’s r); comparison of each scale levels (Student’s t) and multiple linear regression for EPAI.

Results
Both instruments showed appropriate internal consistency. It was found that sex is independent from gender. Women are more feminine than men, but both are equally masculine. There was a significant correlation between masculinity and EPAI’s scale and all its subscales. Differences were found among femininity levels, with higher Learning Planning in women. In the multiple linear regression, sex is not a statistically significant predictor, but gender is, with male subjects presenting higher SDL in all its subscales.

Discussion and Conclusions
Masculinity is related to all dimensions of SDL, however femininity is only related to learning Self Management and Learning Planning. When controlling the gender effect, sex is not predictor of SDL. The more masculine subjects are: more planned, have a higher desire for learning, manage their learning better, have more self confidence and evaluate more themselves.

References
Relationship between academic background, expectations and academic wellbeing in Chilean medical students

O Matus, L Ortiz, C Perez, P Parra, E Fasce, A Polanco, G Torres, A Meyer

O Matus, Assistant Professor, Faculty of Medicine, University of Concepcion, Concepción, Chile

Background and Purpose
Entering to university involves significant changes in students’ academic, social and personal fields, creating expectations on academic performance\textsuperscript{1}. Studying Medicine implies constant and increasing academic demand, to which the student must adapt\textsuperscript{2,3}. One indicator of the adjustment process is academic wellbeing, understood as high levels of Engagement and low levels of Burnout\textsuperscript{4,5}, which are related to cognitive, affective and demographic variables\textsuperscript{6}. Studies show relationship between General Psychological Wellbeing and Academic Performance\textsuperscript{7}, without specific studies about Academic Wellbeing. This study aims to analyze the relationship between Academic Background and initial Expectations, with academic Wellbeing of Chilean first year Medical students (sponsored by regular FONDECYT #1121002).

Methodology
Study quantitative, non-experimental, correlational and cross-sectional which analyzes the relationship between Academic Background, Academic Expectations Scale, Utrecht Work Engagement Scale Student Questionnaire (UWES-S-17) and Maslach Burnout Inventory (MBI HSS) in an intentional sample of 184 first year Medical students from three Chilean universities, cohort 2012, 53.3% men (average age = 19.2), previous informed consent. Analysis: descriptive of academic performance and scores of instruments, evaluating its internal consistency (Cronbach’s alpha); correlations between scores of both scales (Pearson's r) and multiple linear regression to the explanatory model.

Results
The instruments showed adequate internal consistency. It was found that the highest score on expectations at the beginning of the medical program was on the Academic Involvement dimension. Regarding to their Wellbeing, students have high Involvement in Studies and Emotional Exhaustion. Correlating Academic Background and Wellbeing levels, students with better Academic Performance in high school had greater Involvement in Studies ($r(172)= 0.22$, $p <0.01$) and higher Personal Accomplishment ($r(115)= -0.17$, $p <0.05$). Evaluating the relationship between Expectations and Wellbeing levels, significant correlation was found between Social Involvement at the beginning and lack of Personal Accomplishment after the first semester ($r(182) = -0.38$, $p <0.001$).

Discussion and Conclusions
In medical students, from first year there is an affective-emotional deterioration due to adjusting problems to university environment, rigorous academic programs and low participation in social and recreational activities. After the first semester, they are highly Involved with their Studies. Students with better previous Academic Performance are more Involved with their Studies and have greater Personal Accomplishment. Psychological wellbeing results from properly adapt and deal with stress of university life, so it is necessary to provide tools for successful adaptation, considering that Medicine is highly demanding.

References
Establishing a mentoring scheme between final year students and junior doctors

A Hawkins, A E Stanton, V M Taylor, M Masiello, K Jones

A Hawkins, University of Bristol Academy, Great Western Hospital, Swindon

Background and Purpose
The concept of a clinical or academic ‘mentor’ has long been established as a useful resource during a doctor’s career. Formal mentoring programmes between medical students and doctors are however, less well established1. Those that do exist have traditionally been between students and senior doctors, and are more widespread in the US than in UK medical schools2, 3. The aim of this study is to assess the impact of a mentoring scheme established at Great Western Hospital between final year students and junior doctors (foundation, core surgical and medical trainees). The scheme was intended to provide academic and pastoral support for students.

Methodology
At the start of the final year, each student (n=34) was allocated to a junior doctor who volunteered to be a mentor. There was an initial introductory session where students and mentors were introduced and provided with an information pack. Three months later, we collected feedback from students and mentors to assess their experiences of the mentorship programme. We used semantic differential scales and free text responses to gather quantitative and qualitative data.

Results
In all, 24 students and 8 doctors returned the completed questionnaire. Five students had no contact with their mentor. The main benefits of the scheme were improving student confidence (mean score 4.5/7) and providing individualised academic and pastoral support (mean scores 4.5/7 and 4.2/7 respectively). Students utilised their mentors less for practicing practical procedures (mean score 2.9/7). Junior doctors felt that having a mentee improved their teaching skills (mean score 5.9/7). There was no statistically significant correlation between students’ confidence and doctors’ perceptions of student confidence (r=0.348, p=0.398). Of the respondents, 96% of students and 100% of doctors would recommend the scheme to a friend. Key themes from qualitative analysis were that the scheme provided individualised support and a source of pastoral support.

Discussion and Conclusions
Our study has shown that overall, the mentoring programme was valued by students and junior doctors. Some students and mentors engaged with the scheme more enthusiastically than others. It became apparent that some students did not feel they needed a mentor; we will take this into account when structuring the scheme in future years.

References
Widening Participation
Summer School: A residential programme for Widening Participation

A M Kardasz, J Cross

A M Kardasz, The Hull and York Medical School

The Hull York Medical School has run a pre-entry summer school for the past four years. The target participants are those widening participation students in our broad geographical area intending to apply for Medicine and having the potential to achieve the required academic grades. The summer school is residential and lasts for three days and two nights. In the first year there were seventeen participants and, by 2012, this number had increased to twenty seven.

Using evaluations from our existing widening participation programme we were able to identify some areas of concern to these potential candidates and these included:

- Lack of familiarity with the university environment
- Lack of self confidence/belief
- UCAS personal statement and
- Skills such as presenting and defending arguments
- Interview skills

The summer school was staffed by the HYMS WP team together with some HYMS academics and especially medical students. It was originally funded by Aimhigher but this funding has been replaced by input from the University of Hull's Access Office and HYMS WP budget. Sessions included personal statements, Problem-based learning and clinical skills, a patient simulator, mini conference and a number of workshops, debate/group presentation, Heartstart course and an evening social programme. The medical students play a major role not only in facilitating many of the sessions but also in informal discussions with individuals and groups.

A breakdown of the attendees intended destinations between 2009-2011 were as follows: 12% of the participants applied to HYMS, 18.5% to other medical schools, 20% to Biomedical Science degrees, 12% to other allied Health professions, 8.5% to other HE degrees, 1.7% to others, 5% a gap year, 3.3% re-sitting and 18.5 % no information. In 2012, 18 out of 27 applied to HYMS of which 18 applied to HYMS, 16 got through to interview, of which 2 were rejected, 4 received early offers and 10 are waiting to hear. 1 participant from 2011’s school applied again this year and received an unconditional offer. The feedback thus far has been extremely positive both from the participant viewpoint and from our current students. Spin-offs from this year include the development of interview support sessions and ongoing support via a dedicated Facebook page and we are monitoring the impact of these.
What’s Hot in Learning and Teaching Innovations in Medical Education?
What’s Hot in Learning and Teaching Innovations in Medical Education?
Thursday 11th July 9am – 10.30am
Lecture Theatre 2

9.00am  Welcome – Professor Gill Doody
         Educator Development Group Lead

9.05 – 9.15  Dr Kevin Eva
             Editor-in-chief Medical Education

9.15 – 9.30  Silver Quill Award winners (Medical Education)
             Presented by Dr Kevin Eva, Editor-in-Chief
             Evaluation of three short-listing methodologies for selection into postgraduate training in general practice
             Professor Fiona Patterson, University of Cambridge & Dr Roger Price, Chair of the GP National Recruitment Office

9.30 – 9.45  Impact award winners (The Clinical Teacher)
             Presented by Dr Elizabeth Spencer, Associate Editor
             Interprofessional Education in Practice
             Dr Sundari Joseph, Dr Lesley Diack, Dr Fiona Garton & Dr Jennie Haxton, Robert Gordon University, Aberdeen

9.45 – 9.55  Session Chair: Dr Mark Lillicrap, EDG Member
             Learning the pelvic examination with a gynaecology teaching associate: the students’ experience
             Dr Katherine Savage, & Dr Lynn Monrouxe, Cardiff University School of Medicine

9.55 – 10.05  A simple tool to improve quality of educational supervisor report
              Dr Sushma Saksena, Northern Deanery School of Medicine

10.05 – 10.15  Temporary transfer tattoos to simulate skin conditions
                Dr Gerry Gormley, Queen’s University, Belfast

10.15 – 10.30  Session Chair: Dr Clive Gibson, EDG Member
                General Q & A session & feedback form completion
Silver Quill Award Winners

Evaluation of three short-listing methodologies for selection into postgraduate training in general practice

F Patterson, H Baron, V Carr, S Plint, P Lane

F Patterson, Department of Psychology, City University, London, UK

Objective
This study aimed to evaluate the effectiveness and efficiency of three short-listing methodologies for use in selecting trainees into postgraduate training in general practice in the UK.

Methods
This was an exploratory study designed to compare three short-listing methodologies. Two methodologies - a clinical problem-solving test (CPST) and structured application form questions (AFQs) - were already in use for selection purposes. The third, a new situational judgement test (SJT), was evaluated alongside the live selection process. An evaluation was conducted on a sample of 463 applicants for training posts in UK general practice. Applicants completed all three assessments and attended a selection centre that used work-related simulations at final stage selection. Applicant scores on each short-listing methodology were compared with scores at the selection centre.

Results
Results indicate the structured AFQs, CPST and SJT were all valid short-listing methodologies. The SJT was the most effective independent predictor. Both the structured AFQs and the SJT add incremental validity over the use of the CPST alone. Results show that optimum validity and efficiency is achieved using a combination of the CPST and SJT.

Conclusions
A combination of the CPST and SJT represents the most effective and efficient battery of instruments as, unlike AFQs, these tests are machine-marked. Importantly, this is the first study to evaluate a machine-marked SJT to assess non-clinical domains for postgraduate selection. Future research should explore links with work-based assessment once trainees are in post to address long-term predictive validity.
Impact Award Winners

Interprofessional Education in Practice

S Joseph, L Diack, F Garton, J Haxton

S Joseph, Lecturer in interprofessional Education lead for IPE at Robert Gordon University and University of Aberdeen

Background and Purpose
Undergraduate interprofessional education (IPE) is perceived by many in health and social care education to reduce barriers between the professions.

In Aberdeen there has been an IPE programme with Robert Gordon University and University of Aberdeen, and 10 health and social care courses since 2003. The steering groups reported to the Scottish Government in 2008. It was recommended that IPE should be extended from classroom-based learning experiences to practice-based learning experiences.

Methodology
Replicating the same methodology, this study aimed to ascertain attitudinal change experienced by students undertaking IPE in clinical practice. Small groups in theatre and primary care were the pilot placement areas. The study design was a joint venture between the IPE research team and members of the clinical team. IPE activities were created for the specialities using adult learning and patient-centred approaches

Results
Thirty-eight students from medicine, nursing and pharmacy were involved in the studies, and completed readiness for interprofessional learning scale (RIPLS) questionnaires before and after the course activity. There were 29 valid responses, showing a strong level of agreement for 14 out of 19 questions. The studies suggest that the IPE activities implemented had positive effects on the students’ perceptions of interprofessional working.

Discussion and conclusion
The implications are that IPE does not require large classroom-based activities to be successful. The study was successful in achieving its aims and learning outcomes for students in the two locations. It demonstrated that students can leave university better prepared for practice. There is a need for a rigorous longitudinal study to ensure tomorrow’s health and social care workforce demonstrate graduate attributes in interprofessional working.

Further progress
The presentation will focus on the progress made with IPE in practice settings since the publishing of this article in Clinical Teacher including presentations at the All Together Better Health VI conference in Kobe, Japan Oct 2012.
Learning the Pelvic Examination with a Gynaecology Teaching Associate: the students’ experience

K Savage, P Kinnersley, L Monrouxe, A Tristram, E Metcalf, A Fiander

K Savage, Cochrane Institute of Primary Care and Public Health, Cardiff University School of Medicine, Neuadd Meirionnydd, Heath Park, Cardiff CF14 4YS

Background and Purpose
All medical students must be confident to perform the pelvic examination (PE) when they graduate from medical school. Achieving this presents a number of challenges; students could find learning the examination embarrassing and patients may be reluctant to be examined by students. Gynaecology Teaching Associates (GTAs) are women who teach the PE using their own bodies. The benefits of learning the PE with GTAs have been proven; students gain better interpersonal skills for examinations\(^1\) and are more confident that they have palpated the uterus\(^2\). We know students find this teaching generally acceptable but we wanted to look deeper into how the students perceive this. As patient educators are increasingly used in medical education we need to understand the relationship between students and patients\(^3\). This study investigates how the students experience this teaching and the details of the interactions between the student and the GTA.

Cardiff University are introducing GTA teaching to fourth year students on their Obstetrics and Gynaecology block. The GTAs work in pairs teaching three students at a time. GTAs role-play a consultation of a woman attending her GP for a smear. Within this scenario the GTA demonstrates the PE with one GTA examining the other. The students then take turns to perform the role-play and examine the GTA.

Methodology
A longitudinal qualitative narrative study was undertaken. Two methods of data collection were used: - 1). Audio-diaries\(^4\) completed by students (to record narrative accounts of similar teaching experiences and the GTA session); and 2). Single-sex focus groups (following their O+G block). Data were analysed using thematic and narrative analyses.

Results
Preliminarily analysis shows that the students valued this experience and their accounts illustrated respect for the GTAs which was gained by the knowledge and feedback on the PE that the GTAs were able to give. Some students expressed stress before the teaching session; this was dissipated by the secure environment the GTAs created. Further analysis will be presented focusing on the student-patient relationship that was formed.

Discussion and Conclusions
This study shows that the students gain gynaecological examination skills but they also gain respect for the GTAs themselves thus the teaching delivers an important additional and possibly hidden message.

References
A Simple tool to Improve Quality of Educational Supervisor Report

S Saksena, D Robinson, L West

S Saksena, Training Program Director, Faculty Development, Northern Deanery School of Medicine.

Background
The educational supervisor report is a crucial link between educational and workplace based appraisal process as it provides summary of evidence for the annual review of competence progression (ARCP)\(^1\). Northern Deanery School of Medicine decided to introduce a simple tool that would help measure and improve quality of the educational supervisor report.

Methodology
A feedback form used in general practice, West Midlands, to provide feedback, was brainstormed by a group of stakeholders. A new feedback form, to provide feedback to the educational supervisors, referred to as FESR, was designed along with a guidance sheet. The form was to be completed by the ARCP panel at the time of ARCP to provide feedback to the supervisor on the quality of their report. It was piloted in 2011, refined and adopted as standard in 2012. It assessed evidence of judgements, suggestions and areas of good practice within ESR\(^2\). Data was analysed quantitatively.

Results
226 feedback forms were completed at 9 medical speciality ARCPs. 84% reports were graded excellent or acceptable, while 16% identified as needing further development. 81% reports had judgements appropriately referenced to evidence in portfolio. 37% reports were graded as very helpful and 10% as not helpful in deciding ARCP outcomes. While 98% reports were rated as excellent quality amongst trainees with satisfactory ARCP outcomes; amongst trainees with unsatisfactory outcomes, almost half the reports needed further development. One specialty that used FESR as pilot in 2011, showed remarkable improvement in quality of educational supervisor reports in 2012. Informal feedback from TPDs and educational supervisors about the feedback form was positive.

Discussion & Conclusions
Feedback form on educational supervisor report (FESR) is an innovative tool for faculty development. It helped capture quality of educational supervisor report and indicated high overall quality within the School. FESR helped improve quality of supervisor reports in one specialty, over 2 years. Amongst trainees with adverse ARCP outcomes, a higher percentage of supervisor reports, with further development needs were identified, which highlights faculty development need. Recognised as an area of notable practice, it has been adopted by other Schools within Northern Deanery. A web based version has been developed and evaluation planned for 2014.

We will like to acknowledge Mr Steve Hamnett, School Manager, Ms Juliet Graves, Educational Practitioner and Dr Brian Wood, Head Northern Deanery School of Medicine for their suggestions and kind support.

References:
Temporary transfer tattoos to simulate a malignant melanoma: appraisal of a novel OSCE assessment tool

GJ Gormley, A Menary, B Irwin, N Hart, C McCourt

GJ Gormley, Senior Clinical Academic General Practitioner, Centre for Medical Education, Queen’s University Belfast (QUB), Northern Ireland

Background and Purpose
Skin conditions represent a common reason for patients to consult with their family doctor. However it is known that medical students lack confidence in assessing and managing such conditions. Thus there is a need for dermatological conditions to be adequately taught and assessed. However using of real patients in OSCEs raises significant issues in terms of standardisation, patient sensitivities and potential discomfort when being examined by a large cohort of candidates. It is often common practice to present candidates with a clinical photograph of a skin lesion in a dermatology OSCE station – which is less than ideal. We have developed temporary transfer tattoos of skin lesions that can reproduce a skin lesion with a high degree of realism. Applying such tattoos to a simulated patient (SP) has the potential to allow for a more holistic and valid judgement of a candidates ability to clinically assess and communicate a dermatology diagnosis to a patient. This study aims to appraise the use of a temporary malignant melanoma tattoo within an OSCE framework.

Methodology
Within a 13 station summative OSCE, a temporary malignant melanoma tattoo was applied to SPs in a ‘skin lesion’ station. A questionnaire captured candidates, SPs and examiners’ opinions and experiences of each station. The degree of perceived realism of each station was determined using a Realism Score (RS). Standard post hoc OSCE analysis determined psychometric reliability of the stations.

Results
97.6% of candidates and 100% of examiners and 100% SPs responded. The ‘skin lesion’ station achieved the highest RS. 88.2% of candidates felt the skin lesion appeared realistic. Interestingly only 27.7% of candidates had ever seen an actual prior to the OSCE. The melanoma stations’ psychometric performance was comparable to, and in many instances better than, the other stations.

Discussion and Conclusion
The use of such tattoo technology can help facilitate a dermatology OSCE station encounter that is closer to a real patient experience. Transfer tattoos of skin lesions, in combination with trained SPs, can enable an authentic, valid and reliable assessment experience for candidates. They allow the assessment of integrated clinical skills including the more humanistic aspects of the dermatology patient encounter. Furthermore given the durability and low cost of the tattoos (£0.05 per tattoo), they are very suited to an OSCE framework. Sample tattoos will be brought to the presentation.

References