Part of the team – integrating GPs with a Special Interest into the ED
L Henderson, M Currer, L Jackson, J Thomson
Emergency Department, Victoria Hospital, Kirkcaldy

Aims:
Maintaining stable staffing is crucial to the effective function of the Emergency Department (ED), however issues with recruitment and retention are considerable. GPs with a special interest (GPwSI) can form an effective and consistent component of core staffing, provided the posts deliver ongoing job satisfaction.

Outcomes:
We have successfully recruited to GPwSI posts. CPD sessions have been used for courses such as APLS, ATLS and safe sedation, and to attend clinics such as ENT, emergency ophthalmology, musculoskeletal clinics and radiology reporting sessions. Two GPwSIs have used the time to facilitate clinical experience for a paediatric diploma, and all have used on-line learning such as spotting the sick child and the RCEM e-learning modules. All have attended and contributed to department teaching including in-situ simulation. We have started regular evening sessions for the GPwSIs to allow them to catch up with each other and choose specific topics relevant to them.

Methods:
GPwSI were conceived in 2000\(^1\). Initially, it was envisaged that their additional skills would be used mainly in the primary care setting for an enhanced level of care\(^2\), but there is increasing crossover to secondary care, and the role fits well into Emergency Medicine given the sessional nature and broad case mix.

Previously, our department had attempted unsuccessfully to recruit GPwSIs. Issues included a lack of support for ongoing training and inflexible shift patterns. Following discussions, a plan was devised to offer a paid CPD session for every 9 sessions worked, consistent with many specialty doctor contracts. Each GPwSI would have a named educational supervisor and the opportunity for appraisal within the organisation in addition to primary care. CPD sessions can be used as paid time for courses provided they are relevant to Emergency Medicine, or to attend training within the ED or the wider organisation. In addition, GPwSIs have the opportunity to deliver teaching within the department and to be involved with audit projects.

Conclusions:
All our GPwSIs are positive about the experience of working within the ED. They feel their skills are valued, and that the knowledge gained working in the ED contributes to their work in primary care. In addition, their primary care skills are a valuable resource for the Emergency Department both on a case by case basis and for staff education. Providing time and opportunities for education benefits both the individual and the department and develops a skilled and stable workforce.

References:

“I was able to update our resuscitation trolley within my surgery with the knowledge of what is currently used with ALS guidelines.”

“Being able to ask a GP about what can be managed in primary care and is OK to be redirected is very helpful and makes me more confident”

“We need more sim sessions.....”

“Treating a pulled elbow in general practice was very satisfying! One of my GP colleagues asked me why I didn’t just send the patient to the ED?!”

Patient presents with abdo pain – what is the abnormality?

Sample slides from GPwSI Xray teaching session

15 year old presents following twisting injury to knee – what is the management?

Recently on a home visit during an out of hours shift I saw a septic patient who was very unwell. Whilst awaiting the ambulance I was able to cannulate the patient, start fluids, commence oxygen......the paramedics who arrived were very impressed: “GPs don't normally do this” - that's because I'm a GPwSI in ED!”
Variation in assessment and standard setting practices across UK undergraduate medicine and the need for a benchmark

Margaret MacDougall
Centre for Population Health Sciences
University of Edinburgh Medical School
(Margaret.MacDougall@ed.ac.uk)

Aim
The principal aim of this study was to provide an account of variation in UK undergraduate medical assessment styles and corresponding standard setting approaches with a view to highlighting the importance of a UK national licensing exam in recognizing a common standard of minimal competence for UK medical graduates. The published results were therefore intended to provide a timely response to the General Medical Council’s (GMC’s) recent approval of “a plan to work with partners to develop a unified assessment for every doctor seeking to practise in the UK.” This assessment – the United Kingdom Medical Licensing Assessment (UKMLA) – is to serve as “an international benchmark test for entry to medicine.”

Methods
Using a secure online survey system, response data on assessment styles and standard setting practices across UK medical schools were collected during the period 13 - 30 January 2014 from selected specialists in medical education assessment. To allow coverage of more recent assessment styles and standard setting methods, the survey content had been informed by literature searching, including a PubMed search. A draft of the survey had also been test-run and reviewed by a measurement theorist and prospective respondents.

Results/Discussion
1. Summary: Of the 34 UK medical schools, 27 (79.4%) agreed to participate, one of which did not offer Finals. Assessment styles and corresponding choices of standard setting methods vary markedly across UK medical schools. While there is considerable consensus on the application of compensatory approaches, individual schools display their own nuances through use of hybrid assessment and standard setting styles, uptake of less popular standard setting techniques and divided views on norm referencing.

2. Sources of variation across UK medical schools
   1) Within-school brands of traditional assessment styles
   2) Weighting of assessment styles for Finals
   3) Requirements for graduation other than passing Finals
   4) Use of norm-referencing
   5) Rules for use of progress and sequential testing
   6) Marking styles: e.g. use of penalty points
   7) Use of the MiniCeX (Mini Clinical Evaluation Exercise) in Finals
   8) Use of hybrid standard setting methods
   9) Accommodation of OSCE (Objective Structured Clinical Examination) resits in the final year
   10) Choice of final versus penultimate year for sitting Finals

3. Interpreting the data soundly
   • Absence of evidence of a common standard does not amount to evidence of absence of a common standard.
   • The proven extensive variability in choice of assessment styles and standard setting practices does, however, inhibit meaningful inter-school comparisons in relation to minimal competence.
   • Thus, the study findings are unsettling in relation to quality assurance of UK medical degrees under the current system.

Conclusions
1. Summary: The extent of variation in assessment and standard setting practices across UK medical schools validates the concern that there is a lack of evidence that UK medical students achieve a common standard on graduation. A national licensing exam is therefore a viable option for benchmarking the performance of all UK undergraduate medical students for entry to the medical profession.

2. What this study adds
   • This study lends weight to the GMC’s claim, previously based on anecdotal evidence, that there is “considerable variation in how medical schools approach assessment.”
   • It also lends convincing evidence in support of McCrorie and Boursicot’s concern about the challenge of making “plausible comparisons in relation to the equivalence of standards of graduates from the different UK medical schools”.
   • As such, this study provides more compelling evidence for the inherent difficulties in making meaningful comparisons about graduate standards across UK medical schools and in turn of resolving discrepancies.
   • The importance of the UKMLA in addressing these impediments to quality assurance should therefore be clearer.

References


Strengthening Emergency Care Information and Communications in the Chitambo District, Central Zambia: a Cross-boundary Collaboration

**Background/Aims**

We report interim results of a Scottish Government-funded cross-boundary collaboration on ‘Strengthening emergency care communications in rural Chitambo District, central Zambia’, where lack of quality information and communications can cost lives.1

**Methods**

A Scottish Government Small Grant Award (£35,865 over 2 years, April 2015 to April 2017) is enabling collaboration on:

- Creating an emergency hotline with a single number to enable healthcare staff and the public to call for support when needed.
- Establishing a suite of knowledge resources to support emergency care decisions – online point of care evidence summaries, decision support resources, print and electronic books.2
- Provision of a PC, tablet, and smartphones and setting up an emergency care resource centre at Chitambo Hospital.
- Training local information and library staff in Knowledge Broker (KB) skills, to support healthcare staff to find, share and apply knowledge in frontline decisions.3

**Results**

Hotline developments:
- Some emergency calls, to a dedicated smart phone number, recorded [http://ow.ly/4mOlUF](http://ow.ly/4mOlUF)
- Free national emergency care short-code number (992) application submitted
- Radio repair costs, for ‘hard to reach’ Rural Health Clinics (RHC), obtained

Knowledge developments
- Emergency care resource room (Decision Support Base, DSB) established at Chitambo Hospital, equipped with:
  - A suite of emergency care knowledge resources (digital and print); [http://ow.ly/4mJ684](http://ow.ly/4mJ684)
  - Computer technologies: Desktop, laptop, and tablet pcs, and smartphones loaded with emergency care resources
  - Some information resources (Print and digital) extended to staff at RHC
  - Chitambo Hospital Emergency Care Facebook page; WhatsApp Support Network; and illustrative Emergency Response video (on Colle’s fracture) created

Training developments
- 2 Knowledge Translation workshops conducted
- 2 Knowledge Translation workshops conducted with information and clinical staff to introduce Knowledge into Action (K2A) and Knowledge Broker (KB) concepts, and develop related roles
- KB training/support ongoing, via Webex, from NES
- 2 5-day follow-up ICT workshops conducted with Chitambo clinicians, to consolidate K2A and KB training/facilitate project implementation

Evaluation developments:
- Baseline evaluation, of staff and community members’ views/experience of local emergency services, conducted

**Conclusions**

This project showcases NES leadership on cross-boundary working with Third Sector and International organisations (4), and Knowledge Translation into Action (K2A) for quality improvement of frontline emergency care. This is contributing both to transforming Chitambo District emergency care services, through improved information and communications, and rich reciprocal learning on effectiveness of mHealth interventions (5), to inform digital transformation of Scottish emergency care communications.

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**References**


5. Zambian Research and Development Technology Academy (ZRDTA): Consider Mudenda (Director)

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**Contact information:** Jo Vallis: jo.vallis@nes.scot.nhs.uk
Familiarity with Rehabilitation Medicine and Its Impact on Recruitment: A Survey
Teng Cheng Khoo, Bhupinder Panesar
Physically Disabled Rehabilitation Unit, Queen Elizabeth University Hospital, Glasgow, UK

INTRODUCTION
Rehabilitation Medicine in the UK is a relatively young specialty that started out in the early 1980s. However, even though the specialty has been recognised for the last 30 years, many doctors remain unfamiliar with the specialty and what it entails. One reason for this may be limited exposure to Rehabilitation Medicine that doctors receive during undergraduate and postgraduate training.

INADEQUATE EXPOSURE TO REHABILITATION MEDICINE AS MEDICAL STUDENTS HAS BEEN SHOWN TO INFLUENCE POTENTIAL RECRUITMENT INTO THE SPECIALTY. ALTHOUGH THIS MAY ALSO BE TRUE FOR DOCTORS IN Early TRAINING, THERE IS A LACK OF CLARITY AS NOT MANY STUDIES HAVE BEEN DONE IN THIS GROUP. APPROACHES TO IMPROVE THE AWARENESS OF REHABILITATION MEDICINE WITHIN THE MEDICAL STUDENT POPULATION HAVE BEEN WELL-DOCUMENTED BUT NO STUDIES HAVE EXPLORED HOW THIS CAN BE EFFECTIVELY CARRIED OUT FOR EXISTING MEDICAL STAFF.

METHODS
The survey comprised of a mixture of quantitative and qualitative questions and can be categorised into 4 sections: (i) Respondent Demographics; (ii) Familiarity with Rehabilitation Medicine; (iii) Career Aspects of Rehabilitation Medicine; and (iv) Improving Familiarity.

RESULTS

Respondent Demographics
72 out of approximately 500 (14.4%) invited participants responded to the survey. Diagram A illustrates the proportion of respondents according to training grade. Majority of respondents were non-GP trainees (83%).

Familiarity with Rehabilitation Medicine
Diagram B illustrates the subjective understanding of the respondents have as to what Rehabilitation Medicine is. 60% felt that they had no undergraduate exposure to the specialty and 47% have not heard about it. Approaches to improve the awareness of Rehabilitation Medicine within the medical student population have been well-documented but no studies have explored how this can be effectively carried out for existing medical staff.

Career Aspects of Rehabilitation Medicine
80% of survey respondents were aware of the diversity of training backgrounds that the specialty accepts and 91% were aware of the working hours and on-call commitments. While the chronic nature of patient management and the bleakness of patient circumstances in terms of disability were identified as important factors, the lack of awareness of the specialty and what it entails was felt to have the most impact on potential recruitment with 69% of survey respondents feeling it mattered.

Improving Familiarity
Majority of respondents (77%) mainly wanted to learn more about the specialty as a service they can access. Table 1 illustrates the perceived impact of interventions that can help improve familiarity with Rehabilitation Medicine according to a 5-point Likert scale. Excerpts of open-ended responses are illustrated in Diagram C.

CONCLUSION
This study highlighted that the familiarity of medical trainees with Rehabilitation Medicine as a specialty is poor. This lack of awareness was felt to be a significant factor that prevented trainees from considering it as a potential career and hopefully by improving awareness, recruitment prospects for the specialty can improve.

Recommendations to help improve awareness include: (i) reinforcing undergraduate experience with longitudinal case studies; (ii) increasing presence of the specialty with greater engagement within the healthcare trust it serves; and (iii) increasing educational opportunities in existing job rotations within Rehabilitation Medicine units.

AIM
1. Assess the familiarity of medical trainees with Rehabilitation Medicine within the West of Scotland and if this impacts on potential recruitment.
2. Identify other potential barriers to recruitment and approaches that can improve awareness.

REFERENCES
Predictive validity of the non-cognitive UKCAT domains at medical school selection versus foundation programme selection: a UK-wide cohort study

MacKenzie RK¹, Ayansina D¹, Dowell JS², Cleland JA¹
¹Institute of Education in Medical and Dental Sciences, University of Aberdeen, ²University of Dundee Medical School

Introduction
Although being a doctor is not just about academic performance, the traditional methods of assessing non-academic factors in medical school selection have been heavily criticised¹. To address the need to assess non-academic factors in medical selection robustly, non-cognitive tests were included in the UK Clinical Aptitude Test (UKCAT)². We investigated the relationship between performance on these non-cognitive tests with foundation programme selection scores.

Methods
We sampled all medical students graduating in 2013 from the 30 UKCAT consortium schools. We included the following in our analysis:

- Pearson's or Spearman's correlations and ANOVA, Kruskal-Wallis or Mann Whitney as appropriate were used to examine the relationships between variables and SJT and EPM scores. Multilevel modelling was used to assess relationships between variables and adjust for confounders.

<table>
<thead>
<tr>
<th>Student Demographics</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td>Age on admission</td>
<td>Educational Performance Measure (EPM)</td>
</tr>
<tr>
<td>Gender</td>
<td>Exit situational judgement test (SJT)</td>
</tr>
<tr>
<td>Socio-economic status</td>
<td>Total UK Foundation Programme (UKFPO) score</td>
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<tr>
<td>Preadmission academic attainment</td>
<td>Total UK Foundation Programme (UKFPO) score</td>
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<tr>
<td>Home or overseas student</td>
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<tr>
<td>Ethnicity</td>
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<tr>
<td>Type of secondary school attended</td>
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<tr>
<td>UKCAT non-cognitive domain scores</td>
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</table>

Results
6294 students with UKCAT, EPM and SJT data were entered into the analysis. There were four types of non-cognitive test:
- libertariancommunitarian,
- NACE - including narcissism, aloofness, confidence and empathy, and NACE total score,
- MEARS resilience score: with self-esteem, optimism, control, self-discipline, emotional-nondefensiveness (END) and faking domains,
- an abridged version of 1 and 3 combined.

Multilevel modelling showed that, after correcting for demographic factors, (females, older students and better socioeconomic status predicted better outcomes in UKFPO scores), END significantly predicted SJT and EPM decile. Interestingly, both aloofness and empathy in the NACE negatively influenced the SJT score.

Conclusions
This is the first national study examining the relationship between performance on the UKCAT non-cognitive tests and that on medical school exit assessments. The END part of the MEARS test seemed to be the most useful test. However, the data reveal a pattern of relationships between non-cognitive factors and medical school performance which do not fit neatly with theoretical expectations. Further research is required to scrutinise these relationships.

Funding and Publication: This study was funded by the UKCAT Research Consortium, with a paper under revision for Advances in Health Sciences Education.

References:
²http://www.ukcat.ac.uk
Preparing medical students for post-graduate training: A systematic review of the literature

Anna Stout (University of Aberdeen) Jennifer Cleland (University of Aberdeen) Margaret Hay (Monash University) Mandy Moffat (University of Aberdeen) Stephanie Russ (University of Aberdeen)

Background
It has been recognised that the transition from being a medical student to becoming a junior doctor can be a time of stress and anxiety. When surveyed, medical students have reported that they do not always feel adequately prepared for this transition. Factors associated with feeling under-prepared include a perceived lack of feedback, supervision and continuity. There have been a multitude of interventions designed and implemented which attempt to better prepare medical students for the transition to clinical practice.

Aim
The aim of this review was to identify interventions designed to ease the transition from medical school to life as junior doctor and to determine to what degree these interventions prepare students for practice.

Methods
A systematic search of PsychInfo, Medline, Embase and the Cochrane Database for Systematic Reviews was undertaken. Original research articles considering the transition from medical student to junior doctor, describing an intervention aimed at better preparing medical students for post graduate training, that included an evaluation of that intervention were included in the review. Four independent reviewers screened full text articles and populated a data extraction table for their retained papers.

Articles included in this review were heterogeneous with variable methods, methodological quality, measured outcomes, evaluations and reported statistics. As a result, meta-analysis was not possible and a narrative review approach was appropriate.

Outcomes
44 articles met the inclusion criteria.

What is “preparedness”? - Lack of clear definition of “preparedness” across all studies
- Interventions broadly categorised into curricula design (e.g. Problem-Based Learning (PBL) vs traditional curricula) and discrete (e.g. one day of simulation)
- Students who had studied PBL type curricula generally felt better prepared for practice than those graduating from more traditional curricula
- Discrete interventions focusing on improved technical skills seem to be successful
- Those focused on non-technical skills improve students’ perceived confidence

Outcome measures
- Few studies demonstrated intervention impact using objective or performance measures

Evaluation tools
- Most at Kirkpatrick level 1
- Few evaluation tools used validated

Sustainability
- Unclear to what degree outcomes are sustained

Conclusions
- On the whole interventions were reported to be successful in terms of improvements in clinical skills and confidence, but there was large variation in the evaluation methods and the quality of study methodology
- The degree to which interventions designed to ease the transition from medical school to life as a junior doctor and prepare students for practice remains unclear
- Whilst students often report feeling more prepared, clear definitions of “preparedness” are lacking and the relationship between perceived and actual workplace competence remains unanswered

References
**Background**
Anaphylaxis is a medical emergency requiring prompt administration of intra-muscular adrenaline. Administering adrenaline via the incorrect route or dose may have serious consequences. A critical incident at our hospital suggested knowledge of adrenaline administration in anaphylaxis was poor. This study aimed to assess this knowledge gap and consider ways to improve it.

**Methods**
Junior doctors (F1/F2) at FVRH were asked to complete a questionnaire containing five scenarios; Anaphylaxis, urticaria, angioedema, foreign body inhalation and asthma. For each scenario, participants were asked to suggest the correct route and dose of adrenaline (if any) that was required. The questionnaire also asked about location of the necessary adrenaline.

The survey was completed in one sitting with no conferring.

**Results**

**Adrenaline in Anaphylaxis**
All respondents (n=33) correctly identified the need for adrenaline in anaphylaxis. However only 16 (48%) correctly identified the correct dose and route of adrenaline (Fig 1).

**Adrenaline in Non-anaphylaxis**
A number of the foundation doctors would give adrenaline in non-anaphylactic scenarios (between 15-88%); this has the potential to delay administration of effective treatment and could cause harm.

**Adrenaline location**
59% of doctors correctly identified the ward drugs cupboard as the location of adrenaline for use in anaphylaxis. However, 86% also located it (incorrectly) in the resuscitation trolley (Chart 2).

**Discussion**
The results of this study suggest there is a knowledge gap in terms of the treatment of anaphylaxis, the use of adrenaline in non-anaphylaxis cases and the location of IM adrenaline. Human factors engineering suggests that systemic factors must be addressed before falling back on staff training, particularly in crisis situations. Changes suggested by this project are:

1. Creation of anaphylaxis box in resuscitation trolley
2. Removal of IV route from anaphylaxis protocols
3. System of resus trolley familiarisation for doctors

**Conclusions**
This study adds to already existing evidence that adrenaline use in anaphylaxis remains poorly understood by junior doctors. The simple changes suggested are applicable nation-wide and would improve patient safety. A post-intervention study will examine the effects of these changes.
Educational needs of clinicians who create, maintain and use vascular access to deliver haemodialysis for kidney failure

Scott W. Oliver¹, David B. Kingsmore², Ram Kasthuri³ and Peter C. Thomson⁴

¹ Specialty Registrar in Renal Medicine; ² Consultant Surgeon; ³ Consultant Interventional Radiologist; ⁴ Consultant Nephrologist

1 NHS Lanarkshire Medical Education Department; 2,4 Glasgow Renal and Transplant Unit; 3 Radiology Department, NHS Greater Glasgow & Clyde

Results

• Vascular access accounts for a huge volume of clinical activity, financial cost, and patient morbidity;
• The technical and non-technical skills required to create, maintain or use CVC or AVF are absent from the Renal Medicine curriculum (1);
• Fistula procedures feature in the Interventional Radiology subspecialty curriculum (2) but are just optional components of the Vascular Surgery curriculum (3);
• The vast majority of renal units rely upon “see one, do one” approaches to train renal dialysis nurses;
• No formal training programme exists for sonographers or other health professionals who require vascular access imaging skills;
• No formal requirements exist for appraisal and revalidation of any clinicians who work with vascular access.

Introduction

• “Vascular Access” is a means of accessing the bloodstream for haemodialysis;
• This is a key modifier of morbidity and mortality for patients with kidney failure;
• Available modalities include arteriovenous fistulae (AVF) and central venous catheters (CVC);
• A broad range of medical, nursing and imaging specialties are involved in the creation, maintenance and use of vascular access to care for patients with kidney failure.

Methods

• Part of the Scottish Vascular Access Appraisal;
• Semi-structured interviews with broad spectrum of clinicians involved in vascular access care;
• 6 week census of vascular access-related clinical work;
• Thematic analysis of audio transcripts.

Recommendations:

• Vascular Access competences should be added to Specialty Training curricula for Renal Medicine, Interventional Radiology and Vascular Surgery;
• Formal competences relating to the assessment and use vascular access should be introduced for Vascular Access Nurses, Renal Dialysis Unit nurses, Sonographers and other Allied Health Professionals;
• Continuing Medical Education in Vascular Access should be a priority for clinicians who care for patients with kidney failure.

Do our messages reflect our meaning? Discourses of widening access on UK medical school websites

K Alexander1, J Cleland1, S Nicolson2, T Fahey Palma1
1 University of Aberdeen, 2 Barts and The London, QMUL

Background
Despite ongoing action, progress in widening access (WA) to medicine has been slow1,2,3 and there is growing evidence that suitable students from WA backgrounds may be discouraged from applying to Medicine by teachers and advisors.4,5

Given that medical schools are under pressure to attract a more diverse cohort4, it is critical to understand the messages (via discourses) they are sending out about WA. This is important as the way things are communicated may inadvertently pass on messages which do not align with or promote the institutions’ goals or policy objectives. Wider research shows that the way an issue is talked about influences perceptions and practice, and hence change regarding that issue5.

This study aimed to gain a better understanding of how UK medical schools communicate messages about the purpose, aims and benefits of WA through their websites, in order to identify opportunities for improvement or further research.

Methods
We conducted a critical discourse analysis on UK medical school webpages relating to WA. Data was collected from April to July 2015 and was intended to offer an understanding of the messages communicated to audiences through this medium during a snapshot in time.

Our conceptual framework was underpinned by an understanding of discourse as per Foucault6 and analysis followed an adapted version of Hyatt’s analytical framework7. As work progressed, researchers noted themes emerging inductively during the analysis before applying a conceptual lens of differing ‘models of inclusion’8 in order to “illuminate and magnify”9 certain aspects.

Results/Outcomes

- The need to widen access in the name of social mobility to individuals was strongly emphasised, but the need to create a more diverse workforce for the benefit of communities served was significantly marginalized.
- Traits attributed to traditional applicants (particularly academic excellence) were shown to be most desirable, whereas strengths stemming from a diverse cohort, inclusive of non-traditional students, are backgrounded or excluded.
- WA participants are thus framed as ‘lacking’ the appropriate skills and knowledge and are “indebted”, “lucky” and “privileged” to take part in activities to make them more competitive.

Conclusions
Our findings reveal that medical schools are predominantly communicating a need for widening access in the name of social justice for very academically able individuals. This de-emphasises the benefit of a more diverse workforce for the benefit of society, and may have implications for attracting a truly diverse group of applicants.

Our study cannot identify if these messages were intended, only that this is what is being communicated by the discourses. The potential effects of these discourses warrant further exploration.

References
5. BES (2016). Key findings from the UK HEI Student Experience Survey 2015-16. Institute of Education, London. Results available at: https://www.iie.ac.uk/research/ukheisurvey/2015-16/key-findings/
6. Department for Business Innovation and Skills.
7. 1. Hyatt, D.; The critical policy discourse analysis frame: helping doctoral students engage with the educational policy analysis; Teaching in Higher Education; 2013; 18:8; 833-845
10. Hyatt, D.; The critical policy discourse analysis frame: helping doctoral students engage with the educational policy analysis; Teaching in Higher Education; 2013; 18:8; 833-845
12. Department for Business Innovation and Skills.
Does size really matter to foundation doctors in anaesthetics?

Hannah Watson, ACCS Anaesthetics, South East Scotland Deanery
Douglas McKendrick, Consultant Anaesthetist, Dr Gray’s Hospital, Elgin

Presented at the 6th National Scottish Medical Education Conference, Edinburgh, May 2016

Introduction

An anaesthetics rotation as a foundation year (FY) doctor can provide enjoyment, clinical experience and transferrable skills (1,2). How much does the type of hospital environment impact on these experiences? This survey aimed to compare the anaesthetic experiences of FY doctors in a district general hospital (DGH) with those in larger/tertiary hospitals or teaching hospitals (TH) in Scotland.

Methods

- Retrospective anonymous survey (SurveyMonkey)
- 77 FY doctors from 2011-2014 invited to participate
- Survey sent out in February and March 2015
- FY doctors from several hospitals were invited:
  - Dr Gray’s Hospital, Elgin
  - Aberdeen Royal Infirmary
  - Raigmore Hospital, Inverness
  - Victoria Hospital, Kirkcaldy
- 11 questions in a variety of formats
- Microsoft excel for data analysis

Results

- Response rate = 26%, 20/77 (13 DGH, 7 TH).
- All of those at the DGH undertook four weeks of anaesthetics.
- Whilst those at TH either eight weeks (1/7, 14%) or 16 weeks (6/7, 86%).

Discussion

DGH provides:
- 100% consultant-led supervision
- An equal or better exposure to anaesthetic procedures and skills despite shorter rotations
- A positive influence on career choice

TH may have:
- Longer rotations
- Greater exposure to invasive monitoring

BUT
- Department inclusion is perceived as less
- Peer-competition higher
- Career choice less influenced

Overall, our survey shows that an anaesthetics rotation can be a productive and enjoyable experience for FY doctors. In particular those doctors at a DGH are more likely than their TH peers to pursue a career in anaesthetics.

Clinical skills during attachment (% exposure/no. of procedures)

- LMA (>10)
- ETT (>10)
- IV induction (>10)
- Gas induction (>10)
- Spinal (1-5)
- Central line (1-5)
- Arterial line (1-5)

Question

<table>
<thead>
<tr>
<th>Question</th>
<th>DGH</th>
<th>TH</th>
</tr>
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<tbody>
<tr>
<td>Interested in anaesthetics as students</td>
<td>69%</td>
<td>71%</td>
</tr>
<tr>
<td>FY job specifically for anaesthetics rotation</td>
<td>46%</td>
<td>57%</td>
</tr>
<tr>
<td>Recommend to peers</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Felt part of overall anaesthetics team</td>
<td>100%</td>
<td>86%</td>
</tr>
<tr>
<td>Peer-competition for skills</td>
<td>15%</td>
<td>29%</td>
</tr>
<tr>
<td>Consultant-led supervision</td>
<td>100%</td>
<td>14%</td>
</tr>
<tr>
<td>Influenced career choice</td>
<td>62%</td>
<td>29%</td>
</tr>
<tr>
<td>Working in acute specialties</td>
<td>46%</td>
<td>0%</td>
</tr>
</tbody>
</table>

References

64 medical students responded. 43 students had formal critical care teaching.

Critical care medicine is an ever-growing discipline that encompasses the entire spectrum of medical and surgical pathologies. Junior doctors are involved early in assessing critically unwell patients. Therefore, knowledge and skills in this area should be acquired during medical school so that when they graduate, junior doctors are confident in their abilities to assess patients and make decisions about patients who are critically unwell. This study aims to assess the self-reported confidence levels of medical students in the context of critical care settings and if critical care teaching has a positive impact on these confidence levels.

METHODS

An online questionnaire asked medical students to rate their confidence levels on 1) assessing acutely unwell patients, 2) escalating to critical care and, 3) recognising when patients are unsuitable for escalation.

Confidence was measured on a 5-point scale of 1 (not confident at all) to 5 (very confident).

Students were also asked if they had any formal critical care teaching.

RESULTS

Students lack confidence in assessing acutely unwell patients and more so when it comes to escalation to a critical care environment.

This highlights an area that needs addressed in order to allow students to graduate with the knowledge and skills required to ensure the safety of critically unwell patients.

Providing teaching appears to increase confidence levels. We are now in the process of developing an educational tool to improve confidence levels. Students who responded to our study have been invited to participate in the development and implementation of this tool.

CONCLUSIONS

Students lack confidence in assessing acutely unwell patients and more so when it comes to escalation to a critical care environment.

This highlights an area that needs addressed in order to allow students to graduate with the knowledge and skills required to ensure the safety of critically unwell patients.

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REFERENCES

Accessed: 06/03/2016

“It's the putting theory into practice I worry most about”. 5th Year Medical Student.
**Background**

Acute hospital specialities such as Emergency Medicine (EM) and Anaesthesia (AN) are experiencing low rates of trainee recruitment and high rates of trainee attrition.\(^1\) In the longer term this means not having the right number of fully qualified doctors, in the right place, at the right time to meet the healthcare needs of Scotland. This in turn has serious consequences for current service delivery, training and patient care.

Using linguistic analysis to explore EM and AN trainees metaphorical talk and their use of language about their training experience can provide insight into the factors which influence trainee career decision-making to then be able to identify how to attract and keep trainees.\(^2\)

**Methods**

We carried out qualitative interviews with 10 EM and 12 AN trainees in Scotland to explore their attitudes towards training. The content analysis of this data is being published separately (Moore et al., in submission). This paper reports a secondary linguistic analysis, the aim of which is to identify trainees’ use of metaphor and idiom, and hence what such language reveals about their thinking and beliefs about the topic.\(^3\)

**Analysis**

We used corpus linguistic software to identify all metaphors and idioms in the data:

- Corpus - is a written/spoken sample of ‘real world’ text (e.g., interviews)
- Corpus linguistics - is the study of language as expressed in corpora
- Metaphor - a figure of speech containing an implied comparison (e.g., all the world’s a stage)
- Idiom - a group of words established by usage as having a meaning not deductible from those of the individual words (e.g. over the moon)

**Results**

Analysis of the corpus revealed several over-arching metaphors and idioms associated with training and work. These are illustrated briefly below and on the next column:

**METAPHORS: Training experience conceptualised as:**

### WAR AND HOSTILITY

Trainees compared their training experience with hostile environments and activities. "It’s a war zone", "it’s hell on earth", "we need more frontline EM consultants", "you have to fight for permission", "inflicting", "not worth sacrificing your own health" and "it’s a battle to get anything done". Also, more positively "we have a bit of camaraderie there".

**IDIOMS: Training experience characterised by:**

**MOTION**

Their job is to "try and keep the department safe, and keep the flow moving" and "improve patient flow". “It’s like swimming through porridge” and “like wading through treacle” to describe the difficulty and the slow progress they encounter but "it’s starting to turn a corner".

**BARRIERS AND PHYSICAL ACTIVITY/SPORT**

The presence of "hurdles", "barriers" and "another hoop to jump through". Feeling like it’s “multistage endeavour” and being “out of your depth” and the need to "rejuvenate from shifts". More positively when describing their attitude "knowing what my targets are, and then aim for them”.

**HARDSHIP AND STRUGGLE**

Feeling like they’re "working on a sinking ship" and “it’s like a treadmill that continues to go up and down in gradient, with no clear end in sight". Attitudes towards training: "dig your heels in and carry on" and “scrap every little bit of teaching that you possibly can” but "can just about see the light at the end of the tunnel”.

**References**


**Conclusion**

This study of linguistic data sheds light on how trainees think and communicate. Issues such rota, reduced quality of life and lack of support need to be addressed if we are to prevent the catastrophic consequences dissatisfaction with training may have on recruitment, retention and service delivery.
The effectiveness of an educational event organised by a student society in enhancing both tutor teaching-skills and student learning: The Ogston Surgical Society experience

Abdullah Alanzi and Ananyo Bagchi
The School of Medicine and Dentistry, University of Aberdeen, Scotland, UK

Introduction

‘Good Medical Practice’, the core guidance for doctors produced by the General Medical Council (GMC), states that all registered clinicians should ‘be prepared to contribute to teaching and training doctors and students’. Educational events organised by undergraduate student societies provide an excellent opportunity for Foundation doctors and Core Trainees to fulfil this responsibility and, in theory, enhance and develop their teaching skills.

Aim

Thus, we aimed to see whether participation of Foundation doctors and Core Trainees as tutors in a mock Objective Structured Clinical Exam (OSCE) that had been organised by the Ogston Surgical Society, an undergraduate student society, improved their teaching skills and made a positive impact on student learning.

Method

We designed a mock OSCE aimed at 4th year and final year medical students. Eleven stations testing a variety of skills—including history taking, breaking bad news, clinical reasoning, carrying out physical examinations and basic life support, were developed. This involved formulating clinical scenarios and producing instructions for the candidates and marking criteria for the tutors. All stations were piloted and reviewed by a clinical skills tutor.

During the OSCE, each station was run by a Foundation doctor or a Core Trainee who had been briefed earlier about the scenario and the standards expected from participating students. Time was allocated for the Foundation doctor/Core Trainee ‘tutors’ to give immediate feedback on the student’s performance in the station and to deliver relevant teaching. Both tutors and students completed questionnaires before and after the event and the data from their feedback were analysed.

Results

All the tutors and 81% of the students completed the questionnaires. Post-OSCE, 100% (N=11) of the tutors reported improvement in confidence in their teaching skills. 100% of tutors also reported an increase in their confidence in their grasp of the clinical skills relevant to the station that they supervised while 90.9% (N=10) reported the same for theoretical knowledge. 94.1% (N=16) of the students found the mock OSCE beneficial to their revision for their final exams.

Discussion

The results obtained indicate that participation of junior doctors in mock OSCEs organised by students can positively contribute to the development of their teaching skills as well as the consolidation of their basic clinical skills and theoretical knowledge. Participating students also seem to benefit from this ‘near peer’ teaching.

Educational events organized by student societies have the potential to provide good teaching and learning opportunities for postgraduate doctors and medical students respectively. However, studies enrolling larger numbers of tutors and students are required to yield firm conclusions.

Reference:
What matters in the delivery of safe, effective and person-centred care?

A review of workforce perceptions and educational resources

Introduction

The NES Patient Safety Multi-Disciplinary Group (PSMG)\(^1\) delivers a coordinated approach to the overall objective of ensuring that NHSScotland staff have the knowledge, skills and behaviours to improve quality of care.

Aim

Our aim was to review current educational resources, and to develop insights into factors that support NHSScotland staff in their development and application of knowledge and skills in patient safety.

Method

The PSMG designed a ‘NES Patient Safety Educational Resources’ consultation and invited a multi-professional audience of educationalists, clinicians, managers, patient safety/quality improvement fellows and other interested stakeholders to participate.

Results

From up to 581 stakeholder resources, a range of qualitative and quantitative viewpoints on supporting patient safety in Scotland was obtained\(^2\).

The power of narrative and experience

Practitioner and patient accounts of care are used by staff to continuously reflect on practice and enhance service provision\(^3\).

Whilst ‘stories’ are presented at meetings and during safety briefs for example, the preferred engaging format is via podcast/video.

Tools and resources

Learning about a range of tools and resources to support patient safety was highlighted (Figure 1). The majority of featured tools/practices were viewed influentially, and in particular, reflective learning and the use of Significant Event Analysis (SEA) were noted.

Challenges and barriers

Whilst the concept of patient safety is integral to day to day practice, some of the perceived challenges and barriers relating to the development of knowledge and skills in patient safety include time management, job pressures, organisational cultures, and access to ongoing education and training.

Ongoing developments

The NES PSMG continues to develop resources and deliver education & training to facilitate capacity and capability across NHSScotland for safer patient care.

Conclusions

In delivering on the ‘Quality Ambitions’\(^4\) of safe, effective and person-centred care, implications arising endorse the importance of ongoing educational and training endeavours in supporting service delivery; further impacting positively on patient care.

References


For further information, contact Dr Nancy El-Farargy, Nancy.El-Farargy@nes.scot.nhs.uk NHS Education for Scotland, Edinburgh, UK | Saline.Nolte@nes.scot.nhs.uk | Mark.Johnston@nes.scot.nhs.uk

What matters in the delivery of safe, effective and person-centred care? A review of workforce perceptions and educational resources. Poster presentation at the 6th National Scottish Medical Education Conference, 5-6 May 2016, Edinburgh International Conference Centre (BICC), Edinburgh, UK.
Introduction: Description of the Module

A five week program for 3rd & 4th year Glasgow University Students was developed at two Lanarkshire Hospitals, Hairmyres and Monklands. The Module was based around the NHS Medical leadership Competency Framework MLCF. Students had the opportunity to observe clinical leaders and managers in a variety of settings and at National, Board and Departmental levels. The students also completed their own Quality improvement project and end of block assessment where they explored one of the domains of the MLCF in greater detail, drawing on the experience gained during the placement.

- **Aims of the Module**

  “High-quality leadership and management at all levels is a prerequisite for a National Health Service that delivers both the highest possible quality of care to patients and the best possible deal for the taxpayer” (Kings Fund 2011)

This module was designed to introduce Students to Medical Leadership and Management to gain an understanding of key principles in leadership theory alongside an understanding of NHS management structure and challenges faced in delivery of Care.

- **Methods**

  Each week covered a different domain of the NHS MLCF. Weekly tutorials enabled discussion, with reference to the students’ current and future career stages and also to reflect on learning or insights gained from that week’s activities. Paper and online resources provided background concepts to underpin experiential learning. As the module developed, students gained an understanding of the linkages and crossovers between Domains and how the competencies integrate with the demands of the service.

- **Results/ Discussion**

  The Module is now on its second year and a total of 6 students have experienced the program. Despite the short time period all students successfully completed Individual Quality Improvement projects in topics ranging from Sepsis, Insulin prescribing, review of errors in discharge summaries and evaluation of an Outpatient antibiotic service. The QI project enabled trainees to identify and plan a PDCA cycle of improvement, evaluate their results and present these at the end of their attachment. The QI Project also encouraged team work and collaborative leadership.

This module has been supported by Board level leaders including Chief Executive, Directors of Medicine, Nursing Finance & Human Resources who have all welcomed the students to observe at meetings and through “one to ones” gave an overview of NHS structure and processes.

Each Module is different as the events available during the block are dependent on Local and National programs. Where possible attendance at a National event is arranged, accompanying a senior leader. To date we have been fortunate to have been given complimentary places at Scottish National Policy, Medical Education and National Hip Fracture events. Topics covered by National events are followed up through local structures e.g. National policy event on Integration matched with Board MCN in palliative care and Hospital@Home service.

- **Conclusion**

  Undergraduate programs in Leadership and Management are well supported by senior staff and well received by Students. This module has allowed Students at a very early stage of training to gain a wide perspective of Healthcare delivery.

- **References**

2. The Medical Leadership Competency Framework: The Institute for Innovation and Improvement and the Academy of Medical Royal Colleges 2009

Acknowledgments:
Thanks to the Executive & Hospital Management Teams, QI teams and clinicians in NHS Lanarkshire for their time and continued support for this Module.
Does the MRCS predict surgical training outcomes and the FRCS?

DSG Scrimgeour¹, J Cleland¹, PA Brennan²
University of Aberdeen¹, Intercollegiate Committee for Basic Surgical Examinations²

Background & Aim

• Surgical training is a long and arduous journey involving high-stakes-examinations and continuous assessment (figure 1). One of these examinations is the Intercollegiate MRCS which is designed to safeguard patients and ensure high standards for practicing surgeons³.

• As with all high-stakes examinations, the MRCS should be reliable, valid and not discriminate against certain groups. The ICBE committee publish an annual report highlighting the reliability of the MRCS but it is yet to be validated or sub-group performance compared.

• The MRCS is a prerequisite for completion of core surgical training and progression to higher surgical training⁴.

• The FRCS examination is attempted towards the end of training and is designed to assess whether a candidate has acquired the knowledge, skills and standards required to practice safely as a consultant surgeon².

• Surgical trainees are continuously assessed via WBAs, which are recorded in the ISCP website. These WBAs are subsequently considered during a trainee’s ARCP.

• At the first stage in our programme of research, we wished to examine if a candidate’s MRCS score predicts their surgical training and FRCS outcomes.

Methods

• The MRCS, ISCP and FRCS databases will be linked and analysed to test out the above hypotheses, with:

  - UK graduates that have sat both parts of the MRCS exam from 2008 to 2016

  - UK graduates that have sat both parts of the FRCS exam from 2008 to 2016

  - And for whom ISCP (ARCP outcomes and WBAs) data is held.

In this poster we present basic descriptive data to highlight the nature of the data and likely areas of interest for further in-depth analysis.

Outcomes/results

• 4643 UK graduates attempted Part B of the MRCS from October 2008 to February 2016

• 4334 passed the exam with 309 yet to re-sit (table 1, figure 2 & 3)

Table 1: MRCS Part A & B demographics

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<th>Part A (%)</th>
<th>Part B (%)</th>
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<td>28yrs (25-51)</td>
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<tr>
<td>F</td>
<td>67</td>
<td>33</td>
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<tr>
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<table>
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<th>Number of Attempts</th>
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<th>4</th>
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<td>33</td>
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<td>30</td>
<td>16</td>
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</tbody>
</table>

Conclusions

• The majority of MRCS candidates are male despite a greater proportion of females entering and graduating from medical school, indicating that surgical training is still male dominated.

• ~3/4 pass Part A and B first time but 15% and 7% of candidates need 3-7 attempts to pass Part A and B respectively (the maximum number of attempts for Part A and B is 8 respectively).

• The majority of candidates pass Part A in Foundation Years and Part B in Core/Specialty Training: for both exams this is earlier in training than recommended by the Royal Colleges of Surgeons.

• Going forward we will link these socio-demographics and exam performance data with the ISCP and FRCS database. This large-scale, national study will allow us to examine the predictive validity of the MRCS and the relationships between performances on different assessments throughout training. This analysis may help differentiate between those that may struggle from those who will progress seamlessly through surgical training.

References


¹: MRCS Part A & B demographics Figure 2 & 3

Figure 1: Level of training at time of passing MRCS and average percentage above pass mark from 2008 to 2016