Impact of self-selected study module on medical students' career choices

NHS
Tayside

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Introduction

A review of the literature suggests that positive experiences in a remote and rural practice increases the likelihood that medical students will go on to practice in rural areas (Dunbabin and Levitt, 2003). This finding is reinforced by Hancock, Steinbach, Nesbitt, Adler, and Auerswald (2009) when they conducted a qualitative study and found that a significant factor that practitioners cited in choosing remote and rural locations to work was undergraduate exposure in this environment. There is little information published on how much undergraduate exposure is needed to influence the students' choice.

The University of Dundee recently started a two week student selected component for third medical students. The students spent the two weeks split between a rural practice and a rural hospital that had significant GP input.

This study explored how a short time in rural practice influences the career intentions of third year medical students.

The study

Six third year medical students who spent 2 weeks in rural practice were given a questionnaire to complete. Three researchers did a thematic analysis on the questionnaires before comparing and agreeing the themes identified.

Results

The return rate for the questionnaires was 100%.

Nearly all the students indicated that doing the attachment either: increased their intention to do general practice as a career or made them change their original career intentions to general practice.

Several students had started to consider a career in a rural setting as a specific choice and increased their understanding of rural general practice through shadowing.

Reasons for change in career intentions

Increased understanding of the role of a rural GP

Time spent shadowing the GP

Increased exposure to the role of the rural GP

Conclusions

Two weeks in a rural general practice setting may provide enough undergraduate exposure to increase the possibility that students will consider general practice and rural medicine as a potential career.

Dunbabin, J., & Levitt, L. (2003). Rural origin and rural medical exposure: their impact on the rural and remote medical workforce in Australia. Rural and Remote Health, 3(1), 212.
Hancock, C., Steinbach, A., Nesbitt, T. S., Adler, S. R., & Auerswald, C. L. (2009). Why doctors choose small towns: a developmental model of rural physician recruitment and retention. Social science & medicine, 69(9), 1368-1376.

aim:

the average attention span of an individual is eight seconds (1)

we wanted to harness this energy and combine it with the fast-paced learning that occurs in the emergency department

learnED
forage some knowledge

method:

we created the website learnED.rocks

multi-disciplinary involvement

innovative, punchy teaching methods

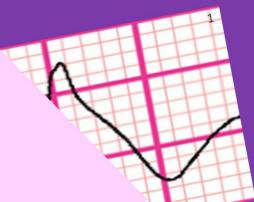This is a one minute wonder.

Minute Wonder

P I D
Pelvic Inflammatory Disease

Jonathan Carter, Consultant in EM, RIE and SJH
November 2014

Brugada syndrome

a learnED production

Jon Carter, Dec 2014

getting the most out of your attach...

interrupted sutures

knee injury

Dressing Pack   Suture Pack

Press pause to check the trolley set-up

Seven Second Learning

in the emergency department

Order of interventions most likely to save life

TOP TEN TIPS
for resuscitative thoracotomy
BY THE SECRET CHEST CRACKER

Indications

PENETRATING: If signs of life
BLUNT: If they die in front of you.

TAMPONADE
HAEMORRHAGE
CPR

THANKS:
The secret chest cracker
emcrit.org/podcasts/procedure-of-thoracotomy

THIS WAY TO THE AORTA

SLOW IS SMOOTH, SMOOTH IS FAST....

1. ALWAYS do a clam shell
2. DON'T let cardiothoracics take over unless they know what they're doing
3. BE bold. Don't hesitate. Aim to enter the pericardium <90secs
4. KEEP your kit simple: Scalpel. Forceps. Tuff cuts.
5. DO two thoracotomies and join them in an underwired bra line, not straight across.
6. ALWAYS open the pericardium - inverted T even if no tamponade.
7. CLOSE cardiac wounds with interrupted sutures.
8. PUT on descending aortic compression early.
9. HAVE blood ready to run.
10. AFTER ROSC, control internal mammary artery bleeding with direct pressure.

results:

one minute wonders

educational cartoons

informative, fun, snappy videos

+ve uptake and engagement from all staff including medical students

conclusion:

it is possible to learn in a seven second culture

create a nurturing learning environment

involve all staff

be innovative and have fun!

Drs Jon Carter, Katy Letham, Janet Skinner. A&E Consultants, Royal Infirmary of Edinburgh

1. Microsoft Canada. Attention spans. Available from: advertising.microsoft.com/en/wwdocs/user/display/cl/researchreport/31966/en/Microsoft-attention-spans-research-report.pdf (accessed 18th April 2017)

Increased Exposure to Pathology:- Raising the profile of the specialty

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Royal Infirmary of Edinburgh, NHS Lothian

Background

Pathology is central to medicine; indeed 70% of treatment decisions within a hospital are driven by a pathology result[1]. Without understanding the pathological process behind disease, one cannot hope to fully understand clinical medicine. Students and doctors alike have noted that there is not enough anatomy within the modern medical curriculum and exposure to Histopathology as a specialty is often limited; leading to challenges with recruitment. Currently the University of Edinburgh Medical School curriculum has no laboratory experience for medical students. With increased exposure to Histopathology at medical school it is hoped that the profile of the specialty can be raised and more medical students may be inspired to pursue pathology as a career.

Method

Year 2 Medical Students from Edinburgh University were offered a 1.5 hour teaching session in pathology. A 1.5 hour teaching session was delivered to 7 volunteers who expressed an interesting in attending. Topics covered in the session were:

- The steps involved in processing a pathology specimen
- Request form Do's and Don'ts
- Macroscopic description of specimens
- Sections of the pathology report - Clinical summary (written but the requesting clinician), Macroscopic description, microscopic description, Bottom line/ diagnosis

The students were also shown a selection of specimens including an advanced cancer, gallbladders, appendices, lipomas, Morton's neuroma, Dupuytren's contracture. The specimens (with the exception of the cancer specimen) were then trimmed and dictated in accordance with normal protocols. In addition, for the benefit of the students, the relevant pathological features were described to the students along with the possible clinical manifestations.

After the session each student was asked to fill out a feedback from.

References
1. LR Forsman, "Why is the laboratory an afterthought for managed care organizations", Clin Chem, 42, 813–816 (1992). PMID: 8653920.

Results

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
The educational programme for the session met the stated aims	0	0	3	3	1
The session met my own learning/training needs	0	0	1	5	1
This pathology lab session should be part of mandatory training	0	1	0	3	3

	Very Poor	Poor	Neutral	Good	Very Good
Quality of Teaching (technical aspects including AV)	0	0	0	6	1
Quality of Cases (clinical aspects)	0	0	1	4	2
Debriefing style of the facilitators	0	0	1	2	4
Relevance of the scenarios (to your future clinical practice)	0	0	0	4	3

- Only 1 of the 7 attendees had any previous experience of pathology.
- All 7 students stated that the session made them more aware of histopathology as a specialty
- All 7 students rated the relevance to their future clinical practice as good (4) or very good (3).
- 6 of the 7 attendees thought that the session should be part of mandatory training

Feedback

Now I understand what the pathologists actually do to the tissue in order to analyse it"

"Better understanding of how to describe specimens macroscopically"

"Now understand the logistics of the pathology dept better"

[I now understand] how the fresh tissue appears within the body e.g. tumours, different gallbladder types, appearance of normal and abnormal tissue macroscopically"

"understanding [of] the processes involved in obtaining a diagnosis"

"What normal/ abnormal specimens look like in real life"

Conclusion

Overall this pilot teaching session has been successful in raising the profile of Histopathology to medical students early in their training. All attendees felt that the session was relevant to their future training and the majority thought that teaching in the pathology department should be mandatory. Further sessions have been planned and it is hoped that this will adopted into the curriculum.

What the doctor does next: Career decision making in Foundation Programme doctors.

Gillian Marion Scanlan[1], Professor Jennifer Cleland[1], Dr Diane Skatun[2], Professor Peter Johnston[3] and Dr Kim Walker[3]
[1] Institute for Education for Medical and Dental Sciences, University of Aberdeen [2] Health Economics Research Unit, University of Aberdeen [3] North Deanery, NHS Education for Scotland

Introduction: Nearly **50%** of postgraduate trainees in the UK leave after the completion of their first two years of postgraduate training (1). In other words, nearly one in two of today's medical graduates left the training pipeline at the first opportunity to do so while still keeping their options open (i.e., with full registration and eligibility to apply for specialty training). Rather than choosing to progress as per medical training system expectations, they opt to take a break from training, often working overseas for a period of time (1). Although working overseas has always been a common option for UK medical graduates (2,3), the difference nowadays is that at least **one in twenty** Foundation Programme (FP) doctors leave the UK workforce for good (4). Given this brain drain, more understanding of what is important to the careers decision making of FP doctors is crucial to identify how best to enhance the attractiveness of medical training, and thus ensure sufficient doctors to deliver service now and in the future.

Our aim was to explore what is important to F2 doctors in their career decision making and identify the relative strength, or value of F2 doctors preferences for training post characteristics in terms of monetary value.

Figure 1: Example DCE question

Choice 1 of 13: Which position would you prefer?

	Position "A"	Position "B"
Geographical Location	Undesirable Location	Desirable Location
Familiarity with specialty	Quite Familiar	Unfamiliar
Culture of working and Learning Environment.	Unsupportive Culture	Supportive Culture
Potential Earnings	10% Above Average	20% Above Average
Working Conditions	Excellent Conditions	Poor Conditions
Opportunities for Professional Development	Average Opportunities	Poor Opportunities

Method: We developed and distributed a discrete choice experiment (DCE) (5) in an electronic format to all second year Foundation Programme doctors (F2) in June 2016. The DCE Characteristics, developed from qualitative work and the prior literature, are presented below. Participants were presented with 13 choice sets (see Figure 1 for an example). The main outcome measures were monetary values for training-post characteristics, based on willingness to forgo and willingness to accept extra income for a change in each job characteristic, calculated from regression coefficients.
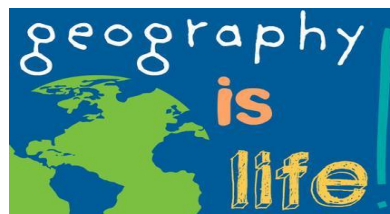
Characteristics/Priority areas	Description given to respondents	Possible levels
Geographical Locality	This refers to the geographical location of the training position including amenities on offer, and the proximity to your family and friends, and/or spouse/partner employment opportunities.	Desirable Location Undesirable Location
Familiarity With Specialty	This refers to how familiar you are with the specialty, whether you have rotated around it previously or have knowledge or experience of it.	Unfamiliar. Quite familiar. Very familiar.
Culture of Working and Learning Environment.	This refers to perceiving that you are a valued and respected member of staff whose training and learning needs are supported.	Supportive Culture. Unsupportive Culture.
Potential earnings	This refers to how your potential earnings compare against average career earnings in your chosen specialty after completing training.	Average earnings 5% above average 10% above average 20% above average
Working Conditions	This refers to working conditions, such as rotas and shift patterns, amount of on call, time off and staffing levels.	Excellent Conditions. Good Conditions. Poor Conditions.
Opportunities for Professional Development	This refers to opportunities to undertake academic research, teaching, and training throughout your training programme and career.	Excellent opportunities. Average opportunities. Poor opportunities.

Results/Discussion: The DCE was answered by 677 F2 doctors, giving an **84.8%** response rate. We found that all training post attributes in the model influenced the choices of our respondents. However, one attribute stood out as being most valued: geographical location. F2 doctors were willing to trade up to **45.75%** of their average expected earnings to have a training post which was in a desirable location (defined as offering amenities and proximity to family and friends). Yet in saying this, other attributes were also very highly valued. F2 doctors were willing to trade around **40.02%** of their average expected earnings to have a training post with a supportive culture to one with an unsupportive culture, and just over **38%** of their average expected earnings to move from excellent working conditions to poor.

Conclusion: To conclude, this is first study that focusses on identifying the career decision making of F2 doctors when they are about to make a critical choice in their career. It explores that both work related factors and non-work related factors both play a role in career decisions making. Overall, this study opens out a new perspective on career decision making internationally, as it highlights that working attributes are no longer the only factors that influence and motivate doctors to stay working in the healthcare sector but that human factors and values are becoming more important.

References:
1. Career Destination Report 2016- The Foundation Programme. Accessed on the 21st of April.2017. www.foundationprogramme.nhs.uk/download.asp?file=Careers_destination_2016.pdf
2. Smith, C., & Low L. The gap between foundation years and specialty training. BMJ Careers 21st February 2012. http://careers.bmj.com/careers/advice/view
3. Rimmer, A. (2015). Nearly half of trainees chose not to progress straight into specialty training in 2015. BMJ careers. Accessed on the 8th of March 2017:http://careers.bmj.com/careers/advice/Nearly_half_of_trainees_chose_not_to_progress_straight_to_specialty_training_in_2015
4. General Medical Council. Interactive reports to investigate factors that affect progression of doctors in training. Accessed on the 16th of May 2016: http://www.gmcuk.org/Briefing_note_Exams_and_recruitment_outcome_reports.pdf_60060997.pdf_60086828.pdf
5. Ryan, M., Gerard, K., Amaya-Amaya, M. Using Discrete choice experiments to value health and Health care, Vol.11. Dordrecht, The Netherlands: Springer 2008.

Situational Judgement Test (SJT): who decides the 'right' answers?

Beesley, R.J, Sharma, A.*,Walsh, J.L, Wilson D.J, Harris B.H.L
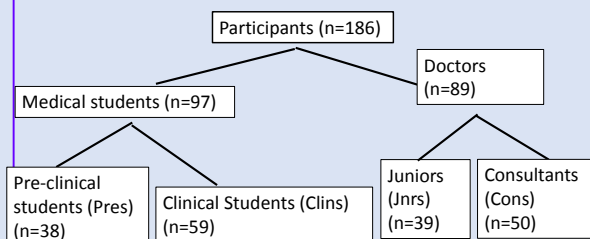*Rebecca Jane Beesley and Angelica Sharma are joint first authors.

Background

- An SJT makes up 50% of scores for applications to the UK Foundation Programme (UKFP, 2016). Candidates rank the appropriateness/ importance of 5 options in response to a potential clinical scenario faced by a FY1 doctor.

- The SJT aims to test the applicants' ability to make decisions concerning matters such as professionalism and teamwork (UKFPO, 2016).

- The answer keys for the UKFP SJT are currently generated by a small number of doctors and tested on concordance panels consisting of often less than 10 Subject Matter Experts (SMEs), before use in the post-graduate application process, which affects thousands of newly qualified doctors each year. These SMEs mainly consist of senior clinicians (Work Psychology, 2015).

Methods

A mock SJT (*m*SJT) of 10 questions was created by randomly selecting questions from the UKFP online practice SJT.

No time limit was set for the *m*SJT.

```
                 Participants (n=186)
                 /               \
                              Doctors
                              (n=89)
   Medical students (n=97)      /      \
    /            \        Juniors    Consultants
Pre-clinical  Clinical   (Jnrs)       (Cons)
students      Students   (n=39)       (n=50)
(Pres)        (Clins)
(n=38)        (n=59)
```

Analysis

- We wanted to know the frequency that the correct answer key is chosen, and if there are any alternative answer keys which are chosen more frequently.
- We also wanted to know whether certain clinical positions showed greater concordance with the proposed answer key, and whether this result was supportive of the use of senior clinicians as SMEs for the concordance panels.
- Lastly for concordance, we wanted to know whether certain ranking positions, out of the 1st -5th most appropriate options, had higher concordance with their "correct" ranking position.

Aim

We studied the concordance with the "correct" answer key for students and doctors and aimed to assess how meaningful the ranking format of the SJT is.

Fig1. A graph to show the percentage who chose the "correct" answer for questions in the mock SJT across different participant groups
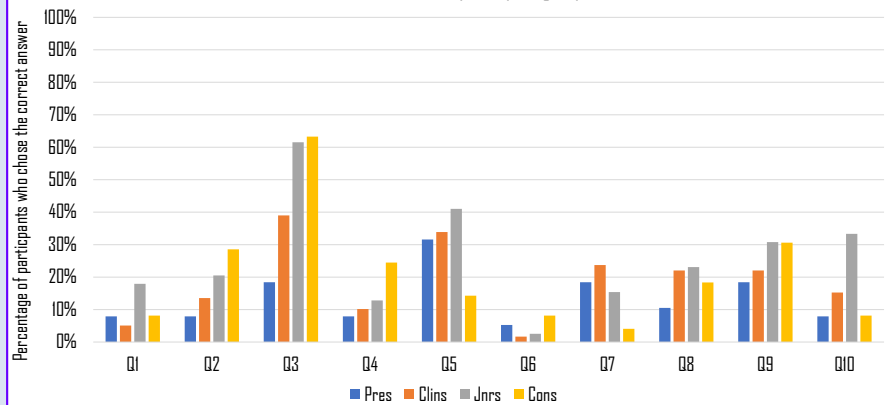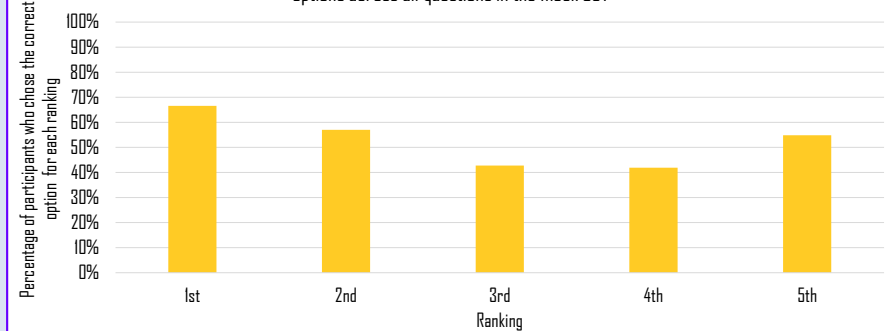

Fig 2. Average percentage of participants who correctly ranked the 1st (best) to the 5th (worst) options across all questions in the mock SJT

Results

Figure 1 shows that the most popular answer selections were generally discordant with the "correct" answer key provided by the reference group of SMEs.

- Clins performed significantly better than Pres, $t(9)= 2.36$, $p<0.05$.
- Clins performed significantly worse than Jnrs, $t(9)=2.55$, $p<0.05$.
- Cons did not perform significantly better than Clins, $t(9)=0.469$, $p>0.05$.

Figure 2. shows that there was significantly more uncertainty in choosing the 3rd ($p=0.004$) and 4th ($p=0.0081$) most appropriate options, compared to the most appropriate option.

Conclusion

The results showed low concordance with the answer key for both prospective candidates and qualified doctors, which may suggest that the current method of developing the answer key is flawed.

Currently candidates have to rank the given options from 1st to 5th. However, there is significantly poorer concordance for choosing options which are neither most or least appropriate/ important. This means the middle ranked options are the most discriminatory.
We question the value of correctly ranking middle options and therefore the ranking format.

References

.UKFPO. 2016. *Situational Judgement Test/ Educational Performance Measure* [Online]. Available at: http://www.foundationprogramme.nhs.uk/pages/medical-students/SJT-EPM [Accessed: 17/06/2016]
.Work Psychology Group. 2015. Analysis of the Situational Judgement Test for Selection to the Foundation Programme 2015. Technical Report

University of Glasgow
School of Medicine, Dentistry & Nursing

Promoting medical career choices in Scotland to early years medical students.

Genevieve Stapleton, Katherine Price*, Faseeha Farid, Lara Kelly & Zeyar Tin, Undergraduate Medical School & *School of Life Sciences, University of Glasgow
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And with special thanks to our participants: Dr David Hogg (Arran Medical Group) & Dr Ashutosh Deshpande (Royal Alexandra Hospital, Paisley)

Aim: While students in the latter years of their medical degree and foundation doctors are provided with a breadth of information to support career choices, early years students are relatively unsupported. The GMC recommends that *"students will have access to career advice and opportunities to explore different careers in medicine"* however for early years students this can sometimes be impractical and poorly supported by medical schools.

In order to understand how early years can be best supported to access medical careers information, two medical careers videos were created to specifically targeted early years medical students. An evaluation of these videos found that careers information was well-received, both as a source of information and as a source of motivation while studying in pre-clinical years. We conclude that it is never too early to provide careers information to undergraduate medical students which can be used alongside course material to provide information, motivation and promote specialist practice in Scotland.

Methods

A Year 2 SSC (Student Selected Component) was created to enable students to design and produce medical careers resources targeted at first and second years students. Students decided to promote Remote and Rural General Practice and Clinical Microbiology, two specialties that students may know comparatively little about.

Planning for the videos required:
• Preparation of questions for interviewing specialist

Table 1

Questions for the interview with the GP
What is a remote and rural GP?
What does the work involve?
Where are you based?
Who do you work with?
Who are your patients?
What is the difference between a normal GP and rural GP?
Describe your typical day
Do you have a good work/life balance?
What led you to choose this speciality?
What is the route into this speciality?
How did undergraduate medical school prepare you for this career?
What do you enjoy the most about being a remote and rural GP?
What are the biggest challenges?
Would you have any advice for your former self as a medical student?
Are there any unique opportunities for remote and rural GPs?
Are there any further subspecialties?
What kind of skills and personality do you need to have in this speciality?
Would you recommend this speciality to medical students?
Is there something we haven't asked that you think medical students should know?

• Design of film
• Allocation of roles (camera person, sound person, director/interviewer)
• Editing of footage and production of finished video
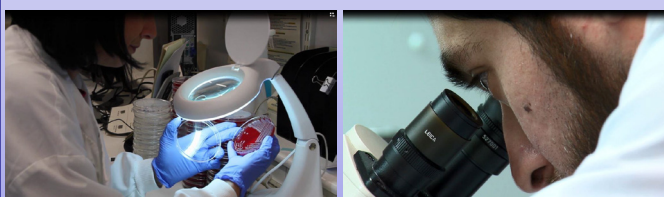• Evaluation of the videos as resources

Outcomes

Two four minute videos were produced and provided to Years 1 and 2 students through their VLE.

Video 1: Remote and Rural General Practice

"It showed me the diversity of their work and also made me realise that being a rural GP could be quite exciting"

Video 2: Clinical Microbiology

"The microbiologist job looks interesting. I didn't know that as a doctor you could also work in a lab"

Findings: Evaluation of videos as a careers resource:

An online evaluation questionnaire was provided to first and second year students in order to evaluate the utility of these videos and whether such resources are welcomed by early years students.

There was a 15.7% response rate to the survey (75 respondents from 479 students)

95% of students surveyed found the videos enjoyable:

"Gave enough information for someone of our level and they were interesting and concise"

 "A video format really kept my attention as it felt more immediate and interactive, whereas reading a leaflet or report might not have done so".

Almost a fifth of respondents have given little thought to their future, majority are already thinking about their future careers and more than half are eager for more information. (Table 2) Interestingly, some students already have firm ideas about their specialisation

Table 2: How much thought have you put into the type of career you wish to go into after medical school? (Likert scale 1-5)	
1 "not yet thinking about it"	7%
2	12%
3 "have ideas but want more information"	54.7%
4	24%
5 "have decided on my career"	3%

Approximately two-thirds of the medical students that replied to the survey felt inadequately informed about medical careers (Figure 1)

Do you feel well informed about the different types of medical careers?
- Yes
- No
- Some/want more information
- No Answer
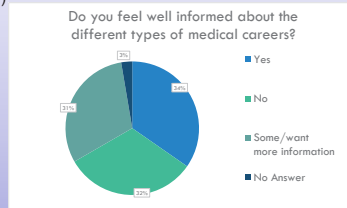
The NHS is the main resource accessed by students who want information on medical careers (Table 3)

Table 3: Where are students getting medical careers information from?	
NHS website	19%
Not accessing any information	10%
Health careers	9%
BMA	9%
BMJ careers	7.5%
Royal college websites	6%
GMC	5%
1-2-1 talks with doctors	5%
Student BMJ	4%
Talks arranged by societies	2.5%
Careers fairs	2.5%
'So you want to be a brain surgeon'	2.5%
Foundation programme website	1%
Other: work experience, lecturers, TV shows, wikipedia, etc	15%

Overwhelmingly, 98.7% of students surveyed indicated that more videos on careers should be provided in the future.
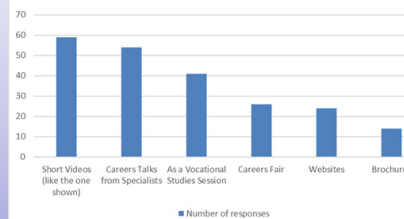
Other formats, such as careers talks were also favoured (Figure 2).

Suggested improvements to the videos included
• more information on the career path
• difficulties faced by the specialists
• a summarising slide with statistics about the specialty (number of consultants, how many openings in a year etc.), and the key advantages/disadvantages mentioned by the specialists

Suggested specialties for future videos included the more popular choices such as surgery, paediatrics and cardiology as well as lesser known specialties such as interventional radiology.

What would be the best way to introduce early years medical students to different careers?
Short Videos (like the one shown), Careers Talks from Specialists, As a Vocational Studies Session, Careers Fair, Websites, Brochures
- Number of responses

Conclusions

Creating videos to promote medical specialties for early years students has been overwhelmingly welcomed by first and second year students at Glasgow University's Undergraduate Medical School. An evaluation of the video resources indicated that students generally feel poorly informed and unaware of the >60 specialties available to them in their future careers.

The design and creation of the promotional videos by early years students ensures that the appropriate information is included for the target audience.

Future videos will contribute to a bank of careers videos that can be used to promote careers choices, not only to early years medical students, but also to prospective medical students and to those considering a medical career in Scotland.

References

Tomorrow's Doctors. General Medical Council. September 2009. Available from: http://www.gmc-uk.org/Tomorrow_s_Doctors_1214.pdf_48905759.pdf

The University of Aberdeen Remote and Rural Programme: A solution to the GP recruitment crisis?

J McGowan[2], K Oates[1] , M Hogg[1], A Devendra[1], J Duncan[2]
[1] NHS Highland [2]University of Aberdeen

UNIVERSITY
OF ABERDEEN

Aim

GP recruitment and retention in Scotland is an increasing problem, particularly in remote and rural (R&R) areas [1]. The University of Aberdeen (UofA) R&R programme aims to expose students to opportunities in R&R medicine and encourage pursuit of a career in GP or other areas of R&R healthcare.

Students who are successfully appointed to the R&R programme spend their entire 4th year in the Highlands with GP placements based in R&R practices.

Our aim was to compare the number of graduating students who have completed the R&R programme and are registered as GPs to their year group peers who have not.

Methods

Students from R&R cohorts over 3 years were identified and searched for on the GMC list of registered medical practitioners.

Information was obtained on registration status, entry to specialist register, GMC approved training programme and location. This was compared with GMC data on all medical students graduating from UofA who are on the GP register.

Results

Of students who graduated from The University of Aberdeen between 2008 and 2010:

- 496 are registered with the GMC, 88 of these are on the GP register
- 39 students completed the R&R programme, 15 of these are on the GP register (38%)
- Excluding the R&R cohort from the total number of graduating students leaves 457 students with 73 on the GP register (16%)

Proportion of non R&R students on GP register

16%
84%

GP   Other

Figure 1

Proportion of students completing the R&R programme on GP register

38%
62%

GP   Other

Figure 2

Chi squared analysis p = <0.05

LOCATION OF GPS FROM R&R PROGRAMME 2008-2010

Unknown
Northern Ireland
England
Scotland

Figure 3

CAREER DESTINATIONS OF R&R STUDENTS 2008-2010

Unknown
Histopathology
Core Medical Training/Medical specilaties
Psychiatry/Old age psychiatry
Emergency medicine
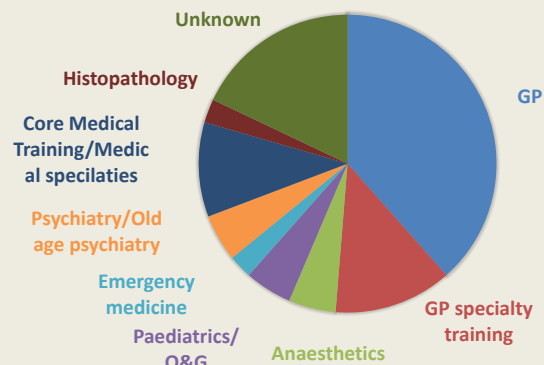Paediatrics/ O&G
Anaesthetics
GP
GP specialty training

Figure 4

Conclusions

- Students who completed the R&R programme between 2008 and 2010 are significantly more likely to have completed GP training than the remainder of their year group
- Over half are either on the GP register or in a GP training programme
- The majority of these GPs have remained in Scotland

Extrapolation of this data would suggest in the 10 years since its introduction, the R&R programme has produced 30 more GPs than expected.

Despite confounding factors, this is an encouraging indication that completing the R&R programme increases the likelihood of pursuing a career in general practice.

References:
1.http://www.parliament.scot/S5_Rural/Inquiries/201608-RR012_RCGP_Scotland.pdf
2. http://www.gmc-uk.org/index.asp
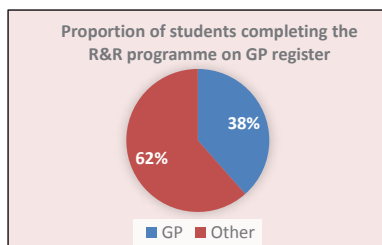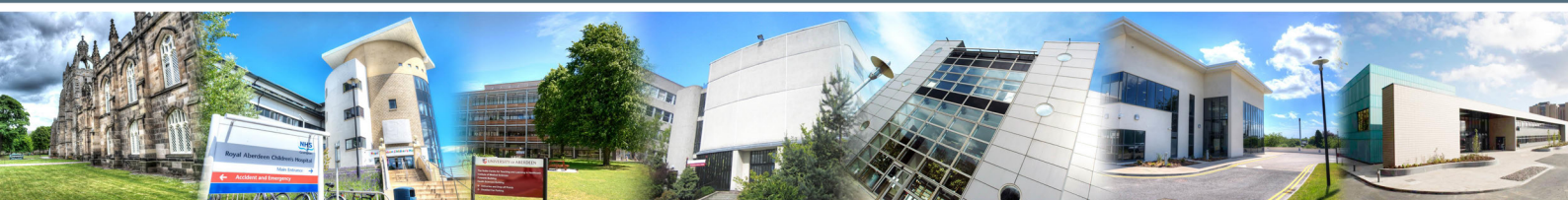
COME HERE. GO ANYWHERE

Working in Partnership with Medical Students to Develop a Positive Digital Identity

NHS Greater Glasgow and Clyde

University of Glasgow

KS Gervin, E Cosgrove, E MacDonald, E Saleem, A Linn, JG Boyle

University of Glasgow; Glasgow Royal Infirmary

Aim

Social media usage is an established part of modern life, with users numbering in the billions. An individual's online activities create their digital footprint or identity, to which they are forever connected. How do medical students view their digital identity and the impact it will have on their future career success? What do medical students need to help them thrive in a digital environment?
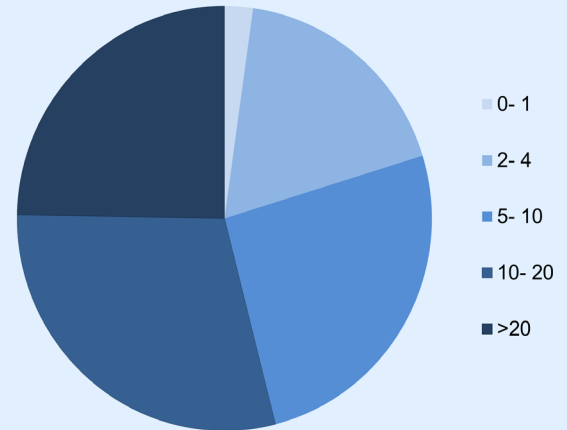
Method

A convenience sample of 1398 students was invited to complete an anonymous survey. The survey was completed using a paper based Evasys response system (Years 1, 2, 3 and Intercalating students) and an online survey (Phase 4 students). Descriptive statistics were applied to the 175 responses.
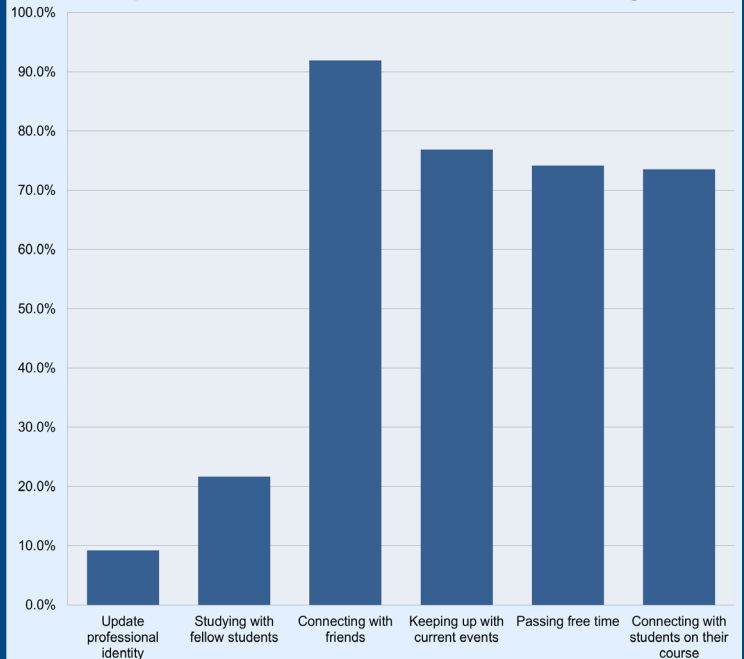
Results

95.1% used Facebook. 9.2% and 21.6% used social media to update their professional identity and for studying respectively. 79.7% check their social media accounts at least five times per day with 59.3% spending over one hour per day using social media. 87.8% of students were confident what is appropriate to post with 50% having witnessed what they perceive as unprofessional posts by peers. A needs analysis suggested that protecting patient's privacy/confidentiality, professional and personal boundaries, outside monitoring, misrepresentation of views and damaging reputation and student responsibility to protect personal data was important to future career success. Areas of greatest need included managing digital distractions, awareness of published guidelines, awareness of copyright and establishing ownership of online contact, developing a professional online profile to network with peers in medicine and checking privacy settings.

Medical student frequency of social media checking per day

- 0- 1
- 2- 4
- 5- 10
- 10- 20
- >20

Purposes of medical student social media usage

(Categories: Update professional identity; Studying with fellow students; Connecting with friends; Keeping up with current events; Passing free time; Connecting with students on their course)

Conclusion

The Undergraduate Medical School has developed student partnerships focusing on the use of technology to enhance digital identity, wellbeing and professionalism. The student voice is vital to the project and this needs analysis serves as a first step in the development of resources in partnership with students to enable them to thrive in a digital environment.

The SAS Development Programme: providing support and funding for SAS doctors to achieve specialist registration via the CESR route

Authors: Dr Lynne Meekison, NHS Lothian & Scotland Deanery; Dr Sue Robertson, NHS Dumfries and Galloway & Scotland Deanery; Gill Campbell, SAS Project Office, NES

AIM

We wished to assess the impact of the support provided by the SAS Development programme to SAS doctors who were considering applying for CESR.

BACKGROUND

In 2011 NHS Education Scotland (NES) was granted Scottish Government funding for the development of the 1300 SAS (Specialty and Associate Specialist) doctors and dentists working in NHS Scotland. The Programme was implemented with a multi-stakeholder Project Board and managed educational network of SAS Local Educational Advisers based in all of the Scottish Territorial Boards.

METHODS

Assessment of the need or aspirations of the group

In 2013 the SAS Project performed a Training Needs Analysis of all SAS doctors and dentists working in NHS Scotland. This was performed by an online survey, with 384 respondents (30%). SAS grades were asked about their aspirations to achieve CESR. Once these results were known the SAS Project addressed the perceived needs in several ways:-

Delivery of training and support

- *Workshops*

  Following analysis of these results, the SAS Project Board approached the GMC Certification department. From 2014 until present day the SAS Project and the GMC have jointly delivered CESR workshops to SAS doctors. The aims of these workshops are to inform SAS grades about CESR and provide guidance about the process in order to guide SAS through and improve the likelihood of success on submitting a CESR application. 110 SAS doctors have attended these workshops from all board areas in Scotland. The feedback from participants is very favourable.

- *Applications*

  With support from Educational Advisers, individual applications to the Project Board for funding to provide backfill of salary were encouraged, enabling blocks of "Top-up" training to meet CESR requirements.
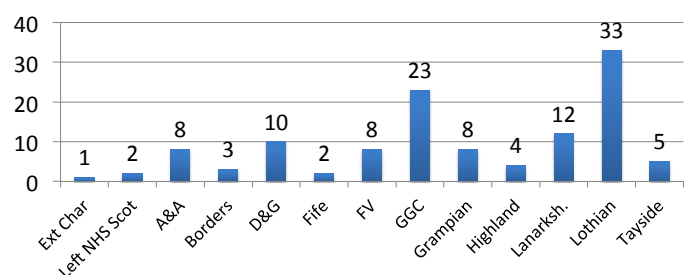
- *Feedback to inform future requirements*

All workshop attendees and those who had made successful applications for individual funding were surveyed in 2017 to ascertain their current situation and future plans with respect to CESR.

RESULTS

2013 TNA Results - Are you interested in CESR?
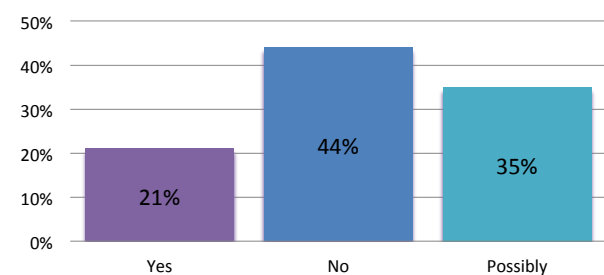
Distribution of attendees from all NHS Boards

Number of individual SAS applicants supported to do "Top-up" training towards CESR with funding for salary backfill (2013-17)= 20

2017 survey of CESR workshop attendees and successful applicants for top up training: Where are you now in your CESR journey? N=60 (55%)

- Have CESR — 7
- Working towards CESR — 17
- Working to resubmit CESR application — 1
- other — 1
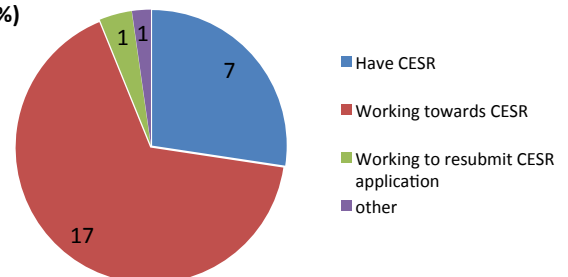
CONCLUSION

The SAS development fund and Local SAS Educational Adviser network has met the project aim to inform individual SAS doctors working in NHS Scotland about the CESR process and provided essential support, both pastoral and financial, to those SAS doctors who wish to work towards Specialist registration via the CESR route.

Enabling SAS Doctors and dentists to achieve their full potential

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Can we develop a gold standard clinical teaching fellow job?

Matthew Sayer, Zoe Hutcheson, Dave Shields, Maureen Sweeney, Ceilidh Grimshaw and Gemma McGrory

Clinical Teaching Fellows, NHS Lanarkshire

Introduction:

Clinical teaching fellow (CTF) jobs were developed in the 1990's. Since then the number of posts has increased [1] allowing junior doctors with an interest in education to take time out of training programmes to increase their experience of medical education while maintaining clinical exposure.

Previous research suggests the CTF role has significant benefits but also identified concerns around lack of a defined training pathway, insufficient clinical experience and lack of support or mentoring while in the role. [2]

Aim:

We aimed to evaluate the latest cycle of adverts for CTF posts in Scotland and analyse whether the jobs still had any of the problems that were present in 2008.

Methods:

We searched jobs.scot.nhs.uk and individual deanery websites using keywords 'clinical', 'teaching' and 'fellow' to identify adverts for new posts. Only fixed term positions were considered while anatomy demonstrator and simulation fellow jobs were excluded. Information from the advert was used to clarify the job description and the support provided.

Results:

We found 6 of the 14 Scottish regions advertised CTF posts. There has been an increase in the number of jobs which include funding a medical education qualification (Fig. 1). Teaching is a core skill for doctors [3] and formalised training in this area should help improve the fact that only 13% of CTFs in 2008 felt the job would enhance their CV and 9% felt a lack of training was an issue. It is also beneficial to junior doctors to gain experience in research [4] and the number of CTFs engaged in this has increased (Fig. 2)

In 2008 20% of CTFs had no scheduled clinical time and 15% raised concerns that a lack of clinical time was leading to a deterioration in skills. This year all jobs advertised time in clinical roles which should help CTFs maintain their own skills while out of training.

While it would appear that the jobs offered this year are becoming more standardised than previously, the amount and nature of the clinical work available is an area of significant variation. Some jobs are primarily based in ED with some teaching responsibilities while several advertise primarily teaching jobs with one session a week of clinical work (Fig. 3). The desired balance has not been fully explored and is likely to vary with the CTF's stage of training and specialty.

Furthermore other identified problems with the CTF role have not been improved upon. Only 17% of this years advertised jobs described a mentor or supervisor which is the same percentage that complained of a lack of mentorship in 2008.

Figure 1: Percentage of jobs funding a qualification

Figure 2: Percentage of CTFs engaging in research

Figure 3: Advertised number of hours spent in clinical work per week in current CTF job adverts.
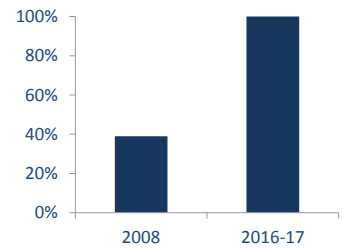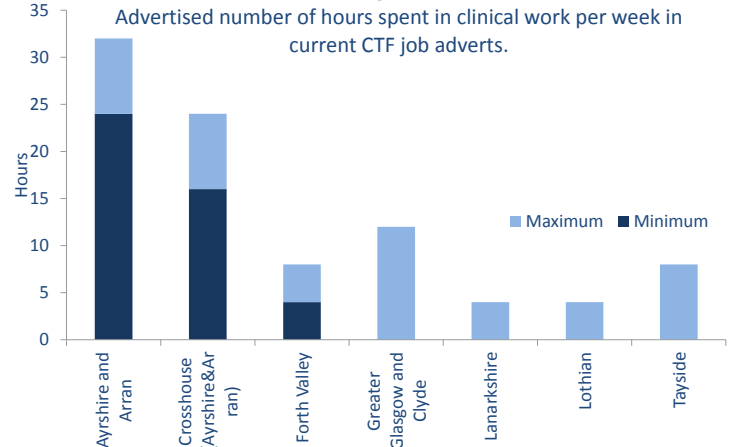
Discussion:

CTF jobs focus on "the art of education" [5] which is multifactorial and difficult to measure. Our results suggest jobs are becoming more standardised addressing some of the previously highlighted concerns of little uniformity [2]. A formal medical education qualification helps address previous concerns about lack of training and gives the job a specific target against which to measure achievement. There is little evidence in the adverts that current jobs specifically address concerns about on the job training however.

It is encouraging that changes made to the jobs seem to remove many of the issues previously identified. A gold standard job may be difficult to define as the objectives for the year and desired clinical exposure may differ depending on the speciality of the candidate.

We acknowledge the flaw in our methodology comparing past survey data with advertised jobs rather than current survey data. To allow for comparison, we have made the assumption that the adverts accurately reflect the prospective jobs.

Conclusion:

• Current CTF adverts suggest the role has progressed in many ways, but increasing mentorship remains a potential area for improvement.
• More defined outcomes for the role should help allay fears the role does not advance careers.
• The amount of clinical work desired may differ between CTFs making it hard to specify a gold standard job plan currently.

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S·E·F·C·E
South East Faculty of Clinical Educators

Clinical
Educator
Programme

"A Necessary Evil"
A Case Study of the Impact of Recognition of Trainers on Clinical Educators and their practice in NHS Lothian

Fiona Crichton, Deputy Director, the Clinical Educator Programme
Centre for Medical Education, University of Edinburgh

Aim

The General Medical Council (GMC) now requires that trainers in certain named educational roles are "recognised" by evidencing training (GMC, 2012) with wide variation across the UK in implementation. This study aimed to look at the impact of this on established local clinical educators but also to investigate how our Faculty Development Programme (the Clinical Educator programme, CEP) can optimise the process for future trainers.

Recognising and approving trainers: the implementation plan

General Medical Council

August 2012

The study research questions also addressed what the sample studied (NHS Lothian Consultants in named Postgraduate roles) felt were the potential benefits and risks of implementing the policy on them and their practice. This poster features a small part of the study details.

Methods

Literature review found little published work on the Framework Standards used for the Recognition of Trainers (RoT) process. Underpinned by a pragmatic philosophical stance Case Study Methodology was used allowing for mixed methods of data collection and "insider research" (Unluer, 2012).

An online survey (quantitative and qualitative data) and Focus Groups (building on survey findings) were used, sampling NHS Lothian consultants holding a named role (n=875) as defined by the GMC (2012, p15) flow chart of process shown. The qualitative data (free text responses and focus group transcripts) were analysed thematically.
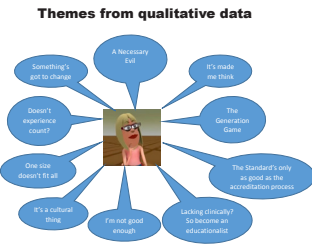
Flowchart of Study Process with numbers

Results / Findings

Named status of participants

245 out of 846 responses were completed online (28%) representing clinicians from 51 different specialities and all major hospital sites within NHS Lothian. Their responses to their named trainer status are shown on the left.

190 of those who responded were registered on our programme (CEP) and the reasons for why they had registered are shown in the chart on the right. These reasons were then grouped as personal developmental (Group A n=73) and for RoT only (Group B n=129).

Please indicate your most important reason for registering on the CEP

Please select up to 3 words which describe how you feel about RoT

Words chosen to describe RoT were much more likely to be negative (boring, bad, ambivalent, time-consuming, compulsory) than positive (exciting, good, engaging, supportive, effective, motivating) or neutral/process related (necessary, credential, relevant) as defined by positivewordsresearch.com. Break down by registration status suggests CEP participants were more positive about RoT.

More Results / Findings

Top Three potential Benefits of RoT	Top three potential Risks of RoT
Educational responsibilities being credited in job plans n=57 (23.3%)	Lack of educational supervisors n= 77 (31.4%)
Improved quality assurance in Medical Education n=43 (17.6%)	Decreased motivation to train juniors n= 39 (15.9%)
Improved Postgraduate Training n= 41 (16.7%)	Reduced time for patient care n= 37 (15.1%)

The top 3 ranked perceived benefits and risks of RoT are shown in the table to the left but this varied within the groups.

One section of the online questionnaire dealt with attitude statements to RoT. Highlights from this included:-
More agreed with the GMC decision to implement than disagreed, that RoT will have an impact on undergraduate medical education and on postgraduate medical education, that the process had helped them reflect more on their teaching, that the process had involved too much paperwork and the process had had no impact on their isolation as a clinical educator all X^2 p<0.0001.
Despite a lot of negative free text comments these statement showed that the majority did not feel under too much scrutiny, that the process was threatening both x^2 p<0.0001.
Most were ambivalent (n=105, 42.9%) or disagreed that the GMC (n=102, 41.6%) were supportive in the process.
Further analysis by groups showed differences in responses between those registered on the CEP compared to those not registered and between those registered for personal developmental reasons than just to fulfil RoT requirements.
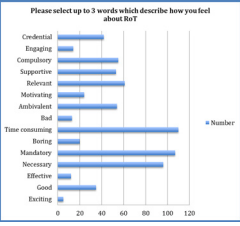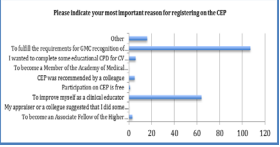
Themes from qualitative data

Overall those doing CEP for personal reasons were far more supportive of the RoT process (p=0.00014), that the process had helped them improve as a clinical educator (p<0.0001), that the process had helped them reflect more on their teaching (p=0.0142) and that their isolation as a clinical educator had decreased (p=0.0003).

Free text comments from the questionnaire were analysed qualitatively along with Focus Group transcripts. The data was coded in 3 rounds and ten themes emerged as shown above. There was an acceptance that society is demanding more accountability and that there may be a positive side to this. Achievement of these goals involved "a necessary evil". Concerns included how fit for purpose the process including appraisal and job planning was. Coding as "value" or "identity" found anxiety and a sense of division between clinicians and educators.

Conclusion

There was general agreement that RoT will have an impact on both undergraduate and postgraduate medical education. On a personal level some felt demoralised but some felt the process had helped them reflect more on their teaching. Some questioned their identity as a clinical educator and this is a potential risk with some relinquishing trainer roles. CEP appears to be a positive motivating choice for some and we should build on this.
Mandatory requirements on trainers should not detract from the aim of professionalization of medical education. Further support is needed to help clinical educators understand the potential benefits of ongoing educational CPD.

Thomas Paine (1776) said "society in every state is a blessing, but government, even in its best state is but a necessary evil: in its worst state an intolerable one". We should strive to make RoT better than tolerable.

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What can we learn about burnout through the perceptions and experiences of medical students'?

Evelyn Watson [1], Jo Cecil [1], Jen Cleland [3], Ashley Dennis [2], Anita Laidlaw. [1]

[1] University of St Andrews, [2] University of Dundee, [3] University of Aberdeen.

Introduction

Burnout has been found to be prevalent in undergraduate medical students ranging from 27% in some studies [1] to as high as 50% in other studies [2]. This group of undergraduate students are thought to be susceptible to burnout with medical school identified as a challenging environment where academic pressures, educational related debt and personal life events can contribute to heightened levels of poor mental health, including burnout [3, 4, 5]. Experiencing burnout can have a profound effect on an individual's quality of life, anxiety levels [6] and well-being. Within the clinical environment burnout in doctors has been associated with aspects of suboptimal medical care [4], medical errors [7] and reduced empathy and professionalism [8], which has serious implications for patient care.

Methods

- A qualitative approach was used.
- Purposive sampling strategy was implemented to recruit medical students from 1st, 3rd and 5th years across three different University medical schools ; St Andrews, Dundee and Aberdeen.
- 46 Semi-structured interviews (20 x 1st yr., 18 x 3rd yr., 8 x 5th yr.) lasting between 30-60minutes took place either face to face within University premises, or via skype.
- Interviews were audio recorded, transcribed and entered into NVivo.
- Data was analysed using framework analysis which allowed for emergence of themes [9].

Aims

- Explore the perceptions and experiences of burnout in medical students at different stages at the undergraduate level
- To investigate whether medical students utilise lifestyle choices to improve resilience against stress and burnout

Results

Three main themes were identified from the data and these are presented below.

Theme 1: Changing perception of burnout with year of study

- All participants acknowledged burnout was present in medical students.
- There was a belief in earlier years that burnout could be either a temporary (short lived, and resolves itself) or a permanent state (where you may have to consider leaving medicine).
- Earlier years of study recognised that burnout was a problem for medical students but perceived it as being in the 'future'.

"…if let's say you've experienced a burnout before, you might be able to cope with it better, as the years progress on and be less likely to overwhelm yourself like that." (1st year)

- Recognition and understanding of burnout increased with year of study and as participants progressed through the years of study a better appreciation of the implications of burnout occurred.

"Not sure, I'm not entirely sure that 1st yrs. get burnout and whether that year is super harsh, I think if you think you have it in first yr. then you are maybe not cut out for doing the full degree I know it sounds horrible but it's probably true, I reckon that burnout in 5th yr. is much worse because you've done all those years…" (5th year)

Theme 2: Reflection on experience of burnout

- Participants recounted their own experiences of burnout in later years of study.

"Personally I've burnt out quite a few times. To be fair it's not a great feeling especially, especially after somethings done for example an exam, like you study so hard up to the point of the exam and you suddenly feel "oh I just I just can't go on anymore I can't do anything anymore."(3rd year)

- Burnout was described in how participants had seen it affect their peers and the consequences that this had produced.

"..actually quite a few of my friend group have had to repeat years or have had to drop out because of mental health issues and stress related issues." (5th year)

- There were differences identified by medical students as they juggled the different pressures that arose through the different years of study. The transition from student to professional was especially difficult in later years.

"I have felt it quite a lot especially in 4th and 5th year, and I've kind of struggled to keep up with work on the wards, giving the kind of fair learning going and that is necessary to pass the exams and pass assessments which I didn't feel so much in earlier years." (5th year)

Theme 3: Coping behaviours used to deal with burnout

- Participants described different behaviours adopted to cope with burnout some adaptive; exercise, healthy diet and socialising with friends (medics and non-medics).

"For me personally talking to my friends is like the biggest means for me to let things out, just to put it out there, I guess I just need to feel I'm not alone, and just that people understand the situation that I'm in…" (3rd year)

- Other coping techniques were maladaptive such as; smoking, excessive alcohol consumption, sleep deprivation, avoidance of stressful situations, late exam revision.

"Smoking I've seen some of my friends when they are stressed they tend to take up habits, for example smoking, some of them do smoking not a lot a small number and even after exams they will smoke to relax. . Quite a lot take up drinking that's not necessarily due to stress per se for some people that I know, it definitely is a way they cope with stress it's part of the speel of being a medical student and they just drink throughout the year, heavily cause that's what they do. For some its sexual promiscuity so maybe they have sex with other medical students, or non-medical students." (3rd year)

- Challenges to coping strategies changed across 1st, 3rd and 5th years and included pressure from peer group, professional and societal expectations, wanting to do well for family members and self expectation.

Conclusions

- Study findings can help inform development of student services for medical students acknowledging that burnout can change over time, what signs to look for in yourself/ others and adaptive ways to cope with the condition.
- To encourage open discussion about burnout within medical schools via regular updates , information provision and opportunities for students to recount their experiences to others.
- Potential for transferability of findings to other student groups e.g. veterinary medicine, dentistry, that are susceptible to burnout.
- Future research should explore the burnout experience longitudinally and follow medical students further along their trajectory to becoming a doctor.

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