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

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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 exposure to the role of the rural GP

Increased understanding of the role of a rural GP

Time spent shadowing the 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.

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

method: we created the website learnED.rocks
multi-disciplinary involvement
innovative, punchy teaching methods

getting the most out of your attack
interrupted sutures

Seven Second Learning
in the emergency department

results:
one minute wonders
educational cartoons
informative, fun, snappy videos
+ve uptake and engagement from all staff including medical students

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

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

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Background

Pathology is central to medicine; indeed 70% of treatment decisions within a hospital are driven by a pathology result¹. 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 form.

Feedback

<table>
<thead>
<tr>
<th>Likelihood</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Whether the session met the stated aims</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>The session met my own learning/training needs</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>The pathology lab session should be part of mandatory training</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>3</td>
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</tr>
<tr>
<td>Quality of Teaching (technical aspects including AV)</td>
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<td>0</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Quality of Cases (clinical aspects)</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Debriefing style of the facilitators</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Relevance of the scenarios (to your future clinical practice)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Results

- 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

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.

References

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

Gillian Marion Scanlan¹, Professor Jennifer Cleland¹, Dr Diane Skatun², Professor Peter Johnston² and Dr Kim Walker³

¹Institute for Education for Medical and Dental Sciences, University of Aberdeen ²Health Economics Research Unit, University of Aberdeen ³North Deanery, NHS Education for Scotland

Methods: 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.

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.

Conclusions: 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:
Background

- An SJT makes up 50% of the 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 (UKFP, 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 (mSJT) of 10 questions was created by randomly selecting questions from the UKFP online practice SJT.

No time limit was set for the mSJT.

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.

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.

- Clinls performed significantly better than Pres, (t(9)= 2.36, p<0.05).
- Clinls performed significantly worse than Jnrs, (t(9)=2.55, p<0.05).
- Cons did not perform significantly better than Clinls, (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=0.008) 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

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

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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
• 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

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 interactive and engaging, 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 pursue?

<table>
<thead>
<tr>
<th>Thought given</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>24%</td>
</tr>
<tr>
<td>Not too much</td>
<td>24%</td>
</tr>
<tr>
<td>Some thoughts</td>
<td>16%</td>
</tr>
<tr>
<td>Quite a bit</td>
<td>31%</td>
</tr>
<tr>
<td>Yes</td>
<td>4%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

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

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
Aim
GP recruitment and retention in Scotland is an increasing problem, particularly in remote and rural (R&R) areas. The University of Aberdeen (UoA) 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 UoA 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%)

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:
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

![Survey Results](image)

**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%)**

![Survey Results](image)

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?
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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.

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 specialty 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.

References:
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 in UK 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. The study research questions also addressed what the sample studied (NHS Lothian Consultants in named Postgraduate roles) felt were the 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” (Unier, 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.

Results / Findings

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 in 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=119).

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

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 agree 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 medical profession’s potential impact on their isolation as a clinical educator all X² 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 X² p<0.0001.

Most were ambivalent (n=105, 42.9%) or disagreed that the GMC (n=110, 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 fulfill RoT requirements.

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.

References


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Special thanks to all the busy NHS Lothian clinicians who took time to respond to my survey and particularly to those who participated in the Focus Groups who part funded my Masters course — also to my supervisor Dr Linda Jones, this work is taken from my dissertation towards MMEd (University of Dundee).
What can we learn about burnout through the perceptions and experiences of medical students’?

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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 (7), medical errors (8) and reduced empathy and professionalism (9), which has serious implications for patient care.

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

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 (10).

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 a better appreciation of the implications of burnout occurred.

“Not sure, I’m not entirely sure that 1st yrs. get it yet 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 just can’t go on anymore I can’t do anything anymore.” (3rd year)

• Burnout was described as 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 such as; 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...” (4th 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.

Further research should explore the burnout experience longitudinally and follow medical students further along their trajectory to becoming a doctor.

References
5. West CP, Shanafelt TD, Kolars JC. Quality of life, burnout, educational debt, and medical knowledge among internal medicine residents. JAMA 2011; 305: 2020.