

# General Practice Live

## A near real time e-GP Surgery learning experience for Undergraduate Medical Students

Dr John McKeown

5<sup>th</sup> May 2017































# Supporting Evidence





# A quantitative study of 29 UK medical schools.

## *Results*

**A statistically significant association was demonstrated between the quantity of authentic general practice teaching at each medical school and the percentage of its graduates who entered GP training after foundation programme year 2 in both 2014 (correlation coefficient [r] 0.41,  $P=0.027$ ) and 2015 (r 0.3,  $P=0.044$ ).**

Authentic general practice teaching here is described as teaching in a practice with patient contact, in contrast to non-clinical sessions such as group tutorials in the medical school.



## Does teaching during a general practice consultation affect patient care?

**Results.** Four hundred and eighty questionnaires were sent; of these, 335 suitable for analysis were returned. The response rate in Newcastle was 79%, and in London 60%. Ninety-five per cent of responders agreed that patients have an important role in teaching medical students. **Patients reported learning more and having more time to talk, however, up to 10% of responders left the consultation without saying what they wanted to say and 30% found it more difficult to talk about personal matters.**

**Conclusion.** The presence of a student has a complex effect on the general practice consultation. Future developments in medical education need to be evaluated in terms of how patient care is affected as well as meeting educational aims.





## **‘Getting them early’: the impact of early exposure to primary care on career choices of A-level students – a qualitative study**

This work has shown that an **early exposure to primary care by a sympathetic and understanding role model** can increase awareness of issues in primary care and enhance its attractiveness as a career option.

There is indirect evidence, through remembered original interventions (the ‘sleeper’ effect), and **through countering of negative perceptions of general practice, that a course of this kind may be able to enhance the attractiveness of general practice as a career option.**

Traditional ‘sitting in’ forms of work experience as an observer are problematic in general practice because of issues such as confidentiality and high workload.



# British GPs keep going for longer: is the 12 second interruption history?

Avril Danczak

“In 2014 Simon Stevens, NHS England chief executive, remarked at the Royal College of General Practitioners’ annual conference that doctors interrupt patients at the start of consultations, sometimes within 12 seconds.

I found that the 12 second interruption related to physicians in the United States, whereas the average time to interruption in Slovenia and Croatia was 28 seconds. In Israel the average was 26 seconds, although the median was only 15 seconds.”

*(However in the UK)* **“Doctors in their first two years of specialty training spoke sooner, after a mean of 36 seconds (median 37), compared with a mean of 51 seconds (median 48) among third year or experienced doctors.**

These British GPs hardly interrupted at all, and they mostly allowed their patients to complete their opening statements, which usually took less than a minute. This is likely to improve the accuracy and effectiveness of their consultations, so this approach should be celebrated. “





## Trends in attractiveness of general practice as a career: surveys of views of UK-trained doctors

“The overall response rate from contactable doctors was 55%. In response to the statement **‘General practice is more attractive than hospital practice for doctors at present’**, 59% of doctors agreed in the 1999 survey, 77% in 2005, and only 36% in 2015.

**One-third of doctors agreed that their exposure to general practice had been insufficient for them to assess it as a career option”**



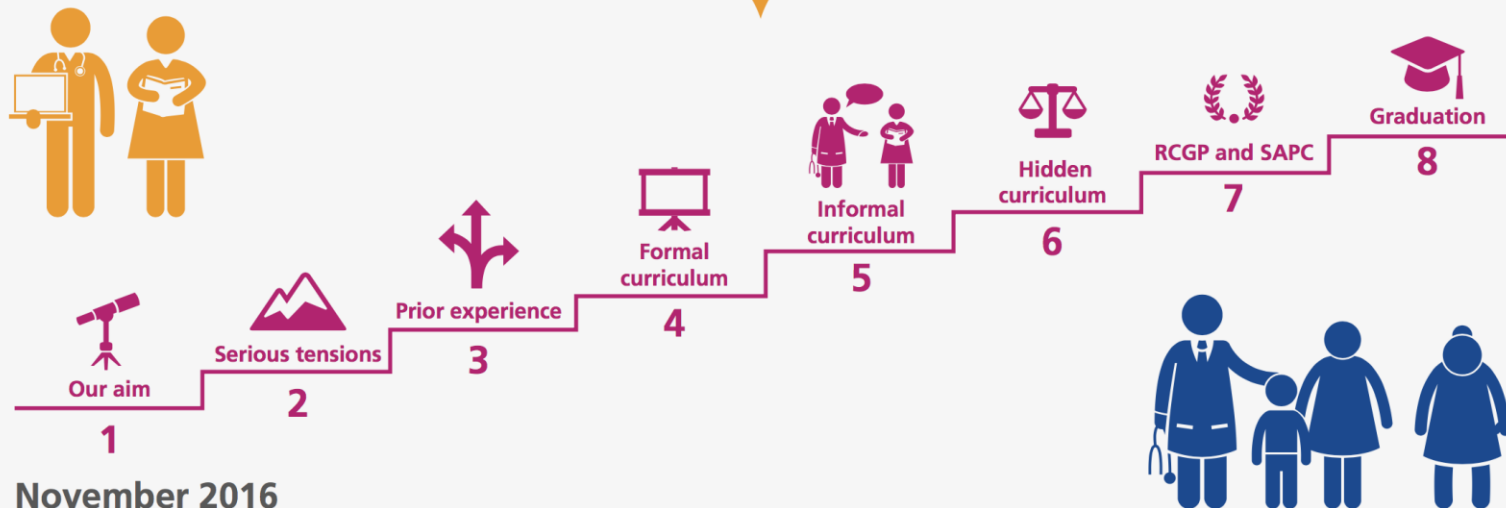
# Addressing the crisis of GP recruitment and retention:

“Some of the most important determinants to increase recruitment in primary care were **early exposure to primary care practice**, the fit between skills and attributes, and a **significant experience in a primary care setting.**”



# By choice – not by chance

Supporting medical students towards future careers in general practice



# Year 1 Foundations of Primary Care – Revised Curriculum in Community

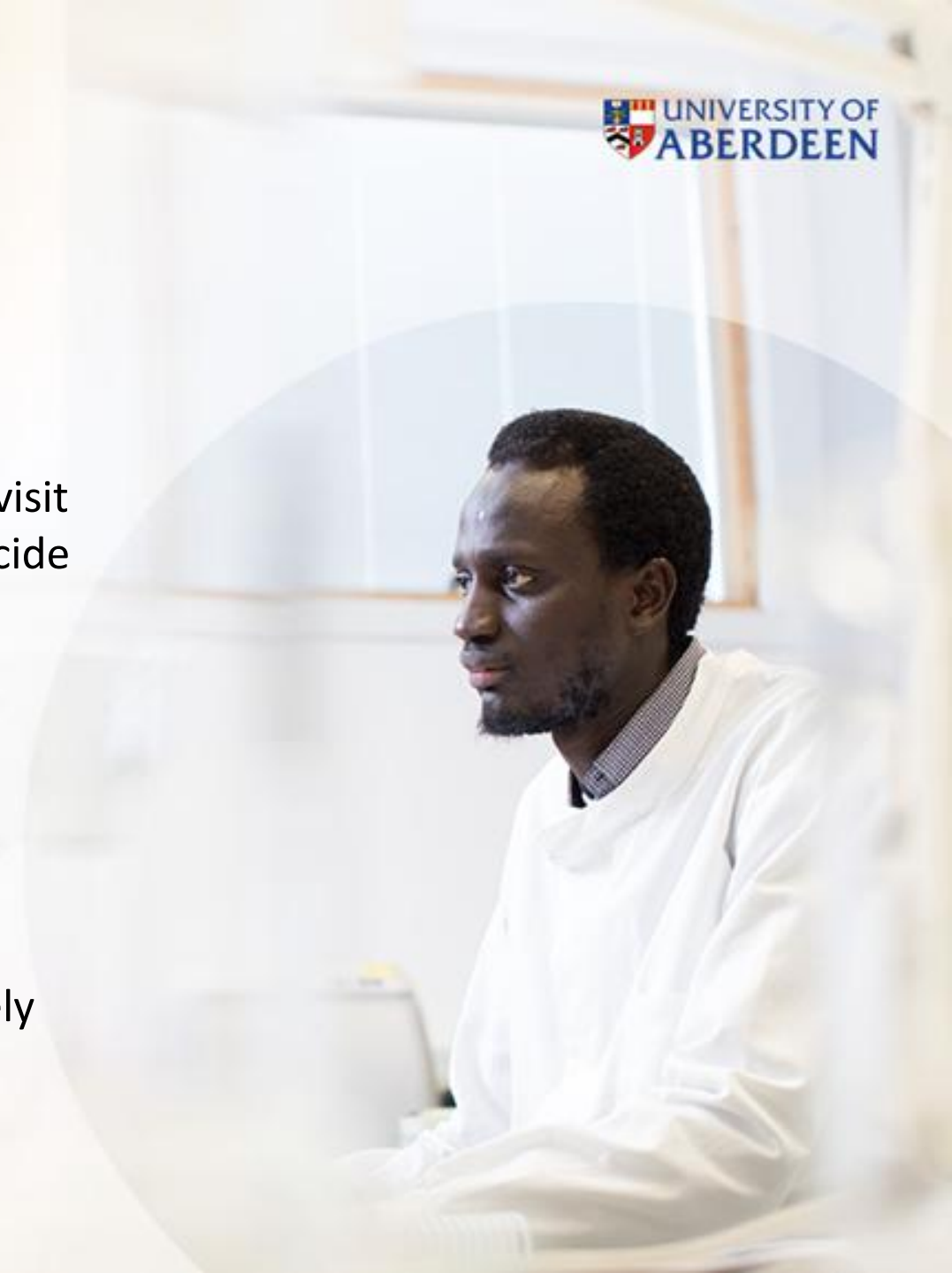
Small group tutorial on General Practice

Truly interactive whole class lecture – What is Health – actors visit and role play of consultations, with pauses where the class decide electronically, by majority, the path of the consultation

GP Live

Small group tutorial - Risk and Uncertainty

Longitudinal Case – A family/patients are followed in the community over 3 years by pairs of named students – extremely positive feedback from students.





GP Live



“Sitting in on consultations and observing would be so so cool and very motivating (if it's possible at all) ”

“Online would be helpful especially if you have to trek miles away just for a lecture. A more hands on approach, e.g. **Observing consultations, would be great too**”

“I don't know if it's part of the course at some point, but it would be **nice to see an actual consultation** and then be able to discuss afterwards, not so much the case itself but the way the GP took the history and did the examination and stuff. We've not seen a history or examination on a real patient and been able to discuss it, it's all just been totally separate areas so far.”

“Any sort of exposure to a consultation, even if it's recorded or a case study or something similar would help loads so we can actually get a **realistic idea of what being a GP is** and hear real life scenarios, to make everything relevant and interesting ”





# Logistical Challenges

8 or 9 students per group over 3 Years

Sessions taken up with various topics

Insufficient time and tutors



## Action

Established a GP Live morning in Year 3.

Positively received by students

Logistically very challenging.





## Year 3 GP Live – In Surgery Consultations

A complete necessity from feedback –

*“Sitting in on consultations and observing would be so so cool  
and very motivating “*

2 Students per patient, 15 mins

Rotated around

Rest of Students with Practice Team



## Year 3 GP Live – In Surgery Consultations

Valuable Session.

Logistically a challenge.

Very stressful for the tutors!

Also the students who were not seeing patients felt disengaged





## Year 3 GP Live e-Learning Pilot



In late 2016 we were coincidentally contacted by Dr Sara Preston about an E-Learning Facility

We attended a meeting to ‘look at the furniture’.

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## Year 3 GP Live e-Learning Pilot

That meeting was interesting,  
and resulted in this project.

We anticipated that it would be about  
online learning, but when we attended, it  
was about the room itself.

At a round table discussion at the end,  
Sara put us on the spot and asked how we,  
in Primary Care, could use the room.





# Year 3 GP Live e-Learning Pilot

So we had to think fast.

I knew I had my GP live surgery teaching 2 weeks later, and I suggested I might be able to do something with that.

I then had a steep learning curve with this new facility, and rapidly triaged what we would need down to something reliable, simple and effective.



## Year 3 GP Live e-Learning Pilot

I wondered if we could use this facility to give the students an experience of a real GP at work, on a real day in near real time.

Our students are used to live streams of events online, and TV and media are embracing live feeds – Stargazing Live etc.

Why not trial something similar for learning General Practice?

Would there be something in seeing a professional at work, dealing with unknown issues, in real time?





## Year 3 GP Live Pilot

We had a Brainstorming Session

Too much initially – of everything!

They mentioned a piece of software called Panopto.

It has many uses, but we focused on one.





## Year 3 GP Live Pilot

At the GP surgery we had a laptop with a webcam.

Discrete and inconspicuous



## Year 3 GP Live Pilot

Adapted University of Aberdeen  
Consent forms

Videos deleted after session

We now keep the videos securely for a  
year, but re-consent if needed again.

Pilot, so very cautious regarding Data  
Protection

UNIVERSITY OF ABERDEEN  
CONSENT FORM  
FILMING, PHOTOGRAPHY AND AUDIO RECORDING

The University of Aberdeen may wish to use photographs, video footage or audio recordings of

- you
- (if applicable) your child, or the child you are accompanying today as a responsible adult

1. These images, footage or recordings **will not be made publicly available** in any University media including print copies, University website ([www.abdn.ac.uk](http://www.abdn.ac.uk)) and social media pages or to any other party other than those students being taught by Dr McKeown on the morning of the 11<sup>th</sup> October 2016.

2. The images, footage and recordings taken will be securely stored on the University's servers in a folder only accessible to Dr McKeown via his personal password. The files will be deleted following the teaching session today.

3. Only Dr McKeown will have access to the stored copies of the files, and will be present when the students are viewing the files. The students will be supported by Dr McKeown looking at consultation techniques, prescribing, and other issues relating to medical training.

We would be grateful if you could fill in the attached form to confirm that you consent to the above use.

.....

Your name: \_\_\_\_\_

(if applicable) Full name of child: \_\_\_\_\_

(if applicable) Relation to accompanying child: \_\_\_\_\_

I consent for photographs, video footage or audio recordings of myself / and /or my child/the child I am accompanying as responsible adult to be used by the University of Aberdeen for the purposes outlined in bullet point 1 above, and I confirm that I agree to the other terms outlined in points 2-3.

Signed \_\_\_\_\_

Date \_\_\_\_\_

The taking of film, photographs or audio recordings and the granting of permission to use the photographs or video or audio footage will constitute an agreement on the terms set out in this form between the University and the person being photographed or recorded, and the responsible individual providing the permission for the photograph to be taken or footage to be recorded.

## Year 3 GP Live Pilot

- The software used is Panopto, which is licensed by Aberdeen University.
- This consists of two parts. A program or an app for the PC/iPad which enables the recording of video.
- It is simply a question of logging in with a University supplied account, selecting the webcam as the video source and pressing record. The consultation is then recorded.
- Once the consultation finishes, the video is saved locally and also sent to a remote secure University folder, only accessible to the person with the username and password for that account, unless shared.







# Adams Comments

- Positive – feels exciting to be involved in something different.
  - Felt comfortable like a normal surgery.
  - Maybe perform slightly differently when on camera – but no more than if students were observing in the room.
  - As close as you'll ever get to it being an authentic GP consultation.
  - I used to hate role play! But younger GP's seem more comfortable with this.
  - There is still a chance that knowing they are being filmed will affect the patients contribution.
  - Great to get feedback, even from first year students.
-





## Year 3 GP Live Pilot

Upload per consultation 10-15 mins

Used delay to ensure consent

Live streaming was possible, but many hazards.

There were no withdrawals of consent after the consultation, but 2 patients withdrew consent before filming.



## Year 3 GP Live Pilot

I consented by phone at 8am.

Consented with a formal written consent form on arrival

Additional letter with more info available if needed.

Reception team now feel better placed to consent.

I would appreciate it greatly if you would consider letting us record your consultation today. I would like to use the recording to teach medical students regarding consultation and communication skills.

I am teaching 3<sup>rd</sup> year medical students regarding consultation styles and techniques, and in my role as a Lecturer at the University of Aberdeen we are pioneering remote access to consultations to aid teaching of students who might be distributed across Scotland. Aberdeen University and General Practice is at the forefront of teaching in this style and you will be assisting the training of future doctors.

The videos will be discussed on the morning of the 11<sup>th</sup> October 2016 in a private room at the University of Aberdeen with Dr McKeown present and teaching.

If at any point during your consultation you request that we stop recording, we will be happy to do so immediately and without further discussion. We will not be recording any intimate examinations, just the usual conversation or simple checks that you might have with your GP.

The video files are stored temporarily on a computer which is protected by security only accessible to Dr McKeown. The consultation videos will be deleted immediately after the tutorial.

If you have any questions about this, or the teaching we provide please ask Dr Booth or Dr McKeown. Your privacy and confidence in our professionalism are extremely important to us, and there will be no issue if you would prefer not to take part in the teaching.

Dr John McKeown

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AB25 2ZD

## Year 3 GP Live Pilot

I then drove across Aberdeen



I logged in to my Panopto account at 4 stations.

Awaited students and videos arriving!










 Home My Folder Shared with Me Everything 34

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Search my folders...  My Folder 17 Everything Refresh

Filter by date



Sort by:

Name

Duration

Date ▾

Location

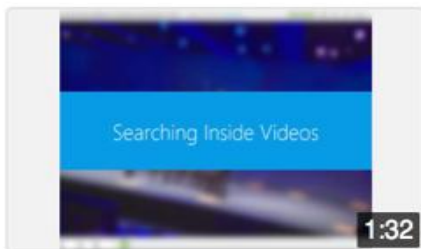
Rating



## Panopto Features - Branding your Video Portal

3 years ago in Get Started with Panopto

Panopto's unique branding tool enables you to customize the look and feel of your video portal and video players in less than 60 seconds.



## Panopto Features - Searching your Videos

3 years ago in Get Started with Panopto

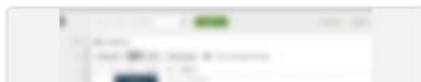
Panopto includes a unique video search engine that allows you to find content inside your videos as easily as you find information inside documents and email.



## Panopto Features - Watching Videos

3 years ago in Get Started with Panopto

Panopto includes interactive and embedded video players that run inside any web browser and provide your viewers with a customizable video playback experience.



## Panopto Features - Uploading Video and Audio

3 years ago in Get Started with Panopto



## Year 3 GP Live Pilot

- It did not initially go perfectly.
- The videos arrived.
- The students chose different videos at each table.
- Despite the tables having speakers with directed sound towards a specific table, it was a cacophony of noise, with the same GP's voice mingling with the neighbouring table.
- We tried a half room split, and decided quickly to send the same video centrally to each table. This worked well.





## Year 3 Student Feedback



# Feedback

“Informative, relaxed, fun”

“Informative, engaging and novel”

“Very interactive, lots of opportunities to discuss and learn”

“Using the screens to stream videos of actual consultations in near enough real time was a great learning tool.”

“I thought the session was well taught. It gave the opportunity to ask questions and discuss issues that from past experience you don't have while sitting in a surgery with a GP.”

# Feedback

Do these sessions from first year!

Very good session. What I liked was how we were able to see and discuss aspects such as body language of the GP consultation that we otherwise would not be able to do (due to GP consultations usually having only one student sitting in, and even then discussing the GP's body language with the GP right after consultation would be a) slightly awkward and b) limited due to time constraints)). Highly recommend that the sessions continue.

Obviously I feel there is not substitute to sitting in on a morning of consultations with a Gp but I understand that at this stage in our training this is not possible and thus is feel like this is a very good alternative.

Having GP available to discuss the cases will make or break these sessions! Really enjoyed it; Thank you very much



# Feedback

I thought this was a great idea and gave everyone an opportunity to see in to consultations with multiple patients rather than just one, and also allowed for feedback at the time without interrupting the consultation.

I think the session was well run. I think it was good having a 'live' stream of consultations that were happening that morning as well as other pre-recorded consultations which brought up more complex issues so we could discuss how to tackle them. As I mentioned before I think it offered the opportunity to ask more questions about a consultation and have a better discussion than when you are sitting with the GP. From my past experience when sitting in with the GP the discussion tends to focus on pathophysiology where in this session although we talked about that we also discussed other issues such as communication between the GP and the patient, how the consultation was lead etc.

I think it would have a place in future years FOPC teaching.

# Year 1 Students

- So inspired, we pressed on.
- I arranged for a session on the 17<sup>th</sup> January 2017 with my new Year 1 students.
- There were a few changes – firstly, I had no goodwill – they had only met me once, unlike my third years!
- I also, I thought, had to target their level of learning and problem solving at a lower level.

## Aide Memoire for GP Live

### GP

Personal Qualities

Records and IT

Practice Team

Patient Facing and Responsive to Needs

Longitudinal Care

Communication – Content, Perceptual, Process Skills

Doctor Patient Relationship

– Authoritarian, Guidance/Cooperation, Mutual Participation

Open Ended Question, Listening, Silence

Direct, Closed, Leading and Reflecting Questions.

Non Verbal Communication and Body Language

### Normality and Health

What is Health – WHO?

Normality – Statistical and Cultural

Definitions of Health – Professional and Lay.

A Functional view of Health?

Social, Gender and Cultural Differences

### Risk and Uncertainty – coming up!

Checking information, safety netting

Minimising Risk and Uncertainty

Individualising Care

Reasoning like a GP, not a Hospital Doctor







# Year 1 Students

Desire to see the difficult and the challenging

Wanted to see me tested and to see complexity.

Like being a parent of young children, my instinct was to protect them from that!

I found myself explaining why some of the issues they might see might be too complex for their current learning or progress on the course.

I came to question that later.



# Year 1 Students

Interesting themes came out of the session.

- There were clinical questions.
- There were questions about body language and communication
- There were questions about realistic practice vs guidelines
- There was a recognition of different models of consultations





# Year 1 Feedback



## Comments

‘Exposing fresh first years to the hardened cynicism of coal faced GPs might see a spike in the numbers of students (very sensibly) dropping out to do IT or Economics and learning Cantonese at night school. GP is too toxic a swamp even for most of us, let alone doe-eyed Bambi like first years. No?’

‘The trick here is to stop them finding out what its really like .’

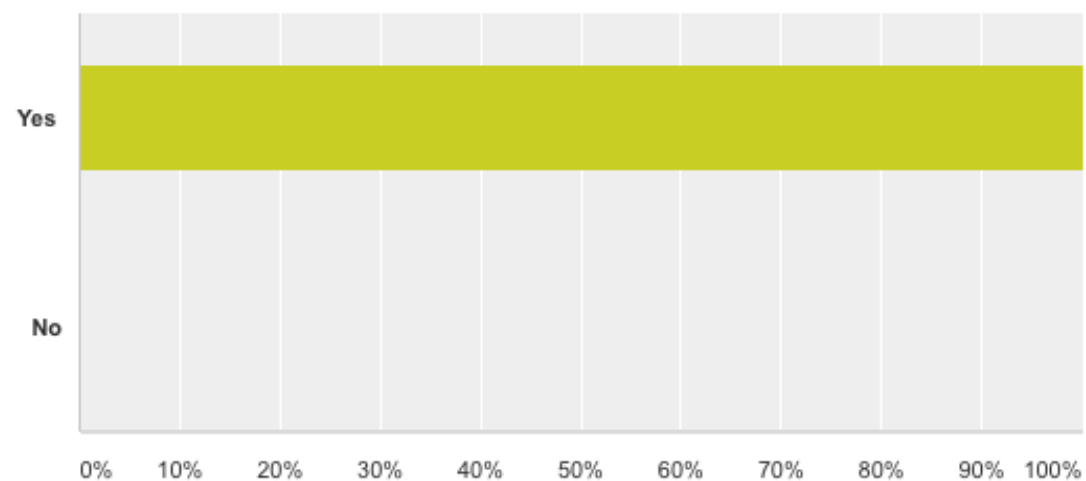
‘Real life is often dull. Wonder if any students would like to watch me doing my Docman tonight, and dealing with all the faxes from the hospital about tests they did in clinic last week. Won't be very exciting TV’

'One of my theories is we have a lot of good role models out there in general practice'  
Interesting. Any evidence?’



## Would you recommend this style of teaching to other groups?

Answered: 13 Skipped: 0



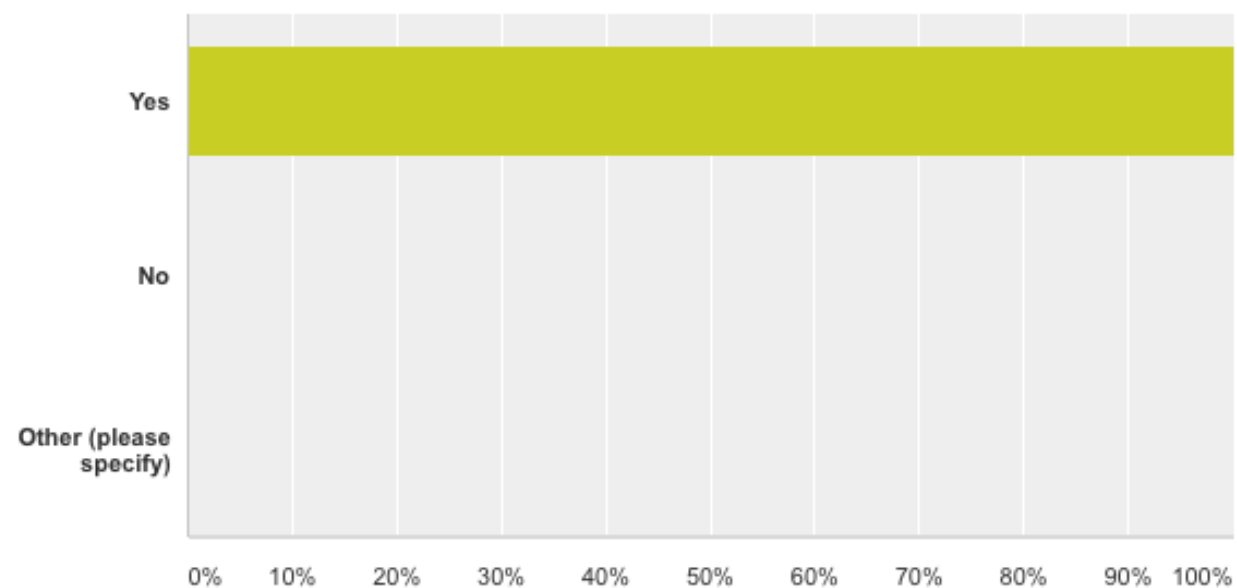
| Answer Choices | Responses |    |
|----------------|-----------|----|
| Yes            | 100.00%   | 13 |
| No             | 0.00%     | 0  |
| Total          |           | 13 |





## Did the teaching interest you?

Answered: 13 Skipped: 0

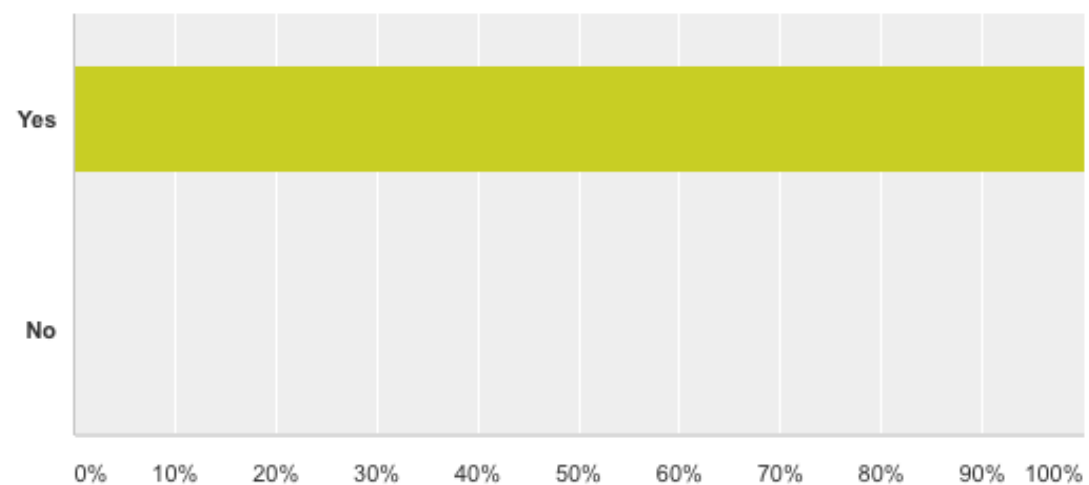


| Answer Choices           | Responses |    |
|--------------------------|-----------|----|
| ▼ Yes                    | 100.00%   | 13 |
| ▼ No                     | 0.00%     | 0  |
| ▼ Other (please specify) | 0.00%     | 0  |
| Total                    |           | 13 |



## Would you consider the teaching you had to be innovative?

Answered: 13 Skipped: 0

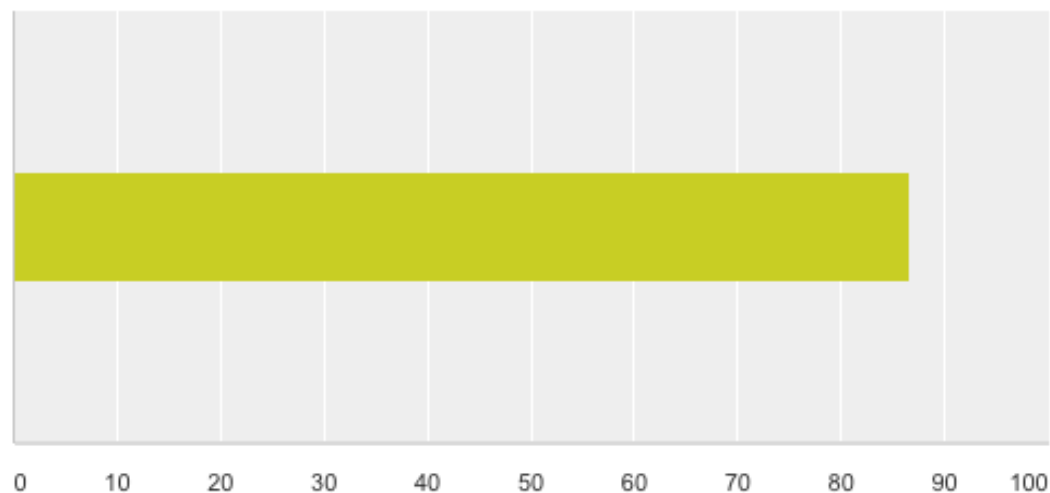


| Answer Choices | Responses |    |
|----------------|-----------|----|
| Yes            | 100.00%   | 13 |
| No             | 0.00%     | 0  |
| Total          |           | 13 |



**How well did the session give you an insight into the work that a GP does in consultations? (with 0 being poor and 100 being a very good insight)**

Answered: 13 Skipped: 0



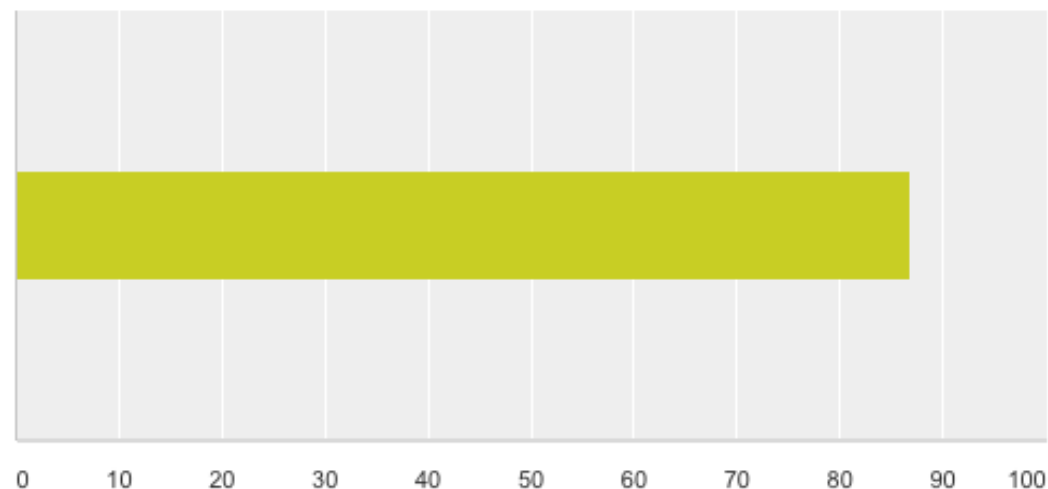
| Answer Choices ▾      | Average Number ▾ | Total Number ▾ | Responses ▾ |
|-----------------------|------------------|----------------|-------------|
| <b>Responses</b>      | 87               | 1,127          | 13          |
| Total Respondents: 13 |                  |                |             |





**On a scale of 0 to 100 (with 0 being poor and 100 being an excellent learning experience), how would you rate your GP Live learning experience?**

Answered: 13 Skipped: 0



| Answer Choices ▾      | Average Number ▾ | Total Number ▾ | Responses ▾ |
|-----------------------|------------------|----------------|-------------|
| <b>Responses</b>      | 87               | 1,128          | 13          |
| Total Respondents: 13 |                  |                |             |



Please make this part of the curriculum.

I thought the session was an excellent way to observe what a GP does during consultations, especially the way in which good communication skills can be used to get the most out of the consultation.

Very insightful. I think I got a better insight into what a GP consultation looks like. The setup allowed us to view multiple consultations, which was helpful as no two consultations are alike; and so the doctor-patient dynamic is likely to change.

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I enjoyed this style of teaching as it allowed us to discuss as a group what the GP was doing well and why they did something, which we couldn't do if we were alone with a gp. To improve, a short list of questions could be given to each group to talk through after a consultation so we know what to look for during the consultation.

It was useful being able to discuss ideas and opinions with others during and after the consultations. The session was overall really insightful, interesting and interactive.



## “Control Groups”

The other tutors delivered this session in the previous style.

The response rate to surveys was much lower – 68% for this GP Live, 10% for another group and 44% for another.

However, the video group were aware they were piloting something new and novel.

The other groups were similarly positive about the experience when scoring the session, but saw fewer patients and had only one single comment - “ It was very interesting. Thank you”.

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# The Future

It's going to be interesting to see how this session develops in the future. We have a few ideas already.

We now have 2 sites similar to the room described earlier. We could therefore accommodate half a class per morning across the sites if needed.

However no special room is needed, just a laptop at one end and a PC with sound and internet at the other.

We have some thoughts how it might translate to later years teaching, for example looking at reducing the inequity of experience students have on one placement compared to another.

# The Future

Early days and issues still to discuss and resolve –

- What if there is an example of poor practice?
- Data Retention issues.
- Simple at the moment with 1 user

However – Imagine a national database of authentic General Practice learning resources, covering rural, suburban and city practices. The potential benefits are perhaps worth working through these issues.



# The Future

It's interesting to reflect that generally, when teaching the consultation, it is often the GP present at the consultation who is the tutor.

The students were quite forthcoming in the feedback that having a facilitator who was not consulting allowed them to ask quite challenging questions that they might have found difficult to ask the GP

The 'Live' and 'Uncertain' nature was clearly appealing to them

# The Future

We have students on placements around Scotland. This may help us to deliver teaching centrally to them.

This method of video capture enables a very fast, simple, secure and a relatively low technology way of capturing a large number of consultation learning resources for teaching

We could also easily demonstrate different management strategies for similar problems, enabling students to understand there is not one correct answer or management plan in patient centred care.

# The Future

Another option might be to demonstrate continuity of care.

It might be possible, with consent, to record a single patient's consultations with their GP over time.

The student could gain a view on the ongoing support from the GP, and the developing professional relationship over time. They would have a better view of the evolving story of a patient's journey through the NHS.



# The Future

One of our strengths is the ability of our students to experience a wide range of General Practice, including city practices but also rural practice.

This may be a way of engaging students early on in the curriculum with the spectrum of General Practice.

A true GP Live morning would perhaps cover many practices, in different socioeconomic and geographical areas.

# Back to the literature

- General Practice is currently a less attractive career choice than it was in 1999 and 2005
- Exposing students to 'authentic' General Practice increases the number choosing that career pathway
- Early exposure to General Practice with a sympathetic role model can enhance it's attractiveness as a career.
- A third of doctors felt that their exposure to General Practice had been insufficient to assess it as a career option.
- Some of the most important determinants to increase recruitment in primary care were early exposure to primary care practice, the fit between skills and attributes, and a significant experience in a primary care setting."

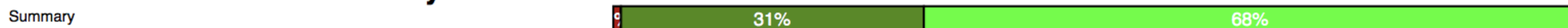
Strongly Disagree
Generally Disagree
Generally Agree
Strongly Agree
N/A

**The course overall has improved my understanding of work in the primary care setting**



Strongly Disagree
Generally Disagree
Generally Agree
Strongly Agree
N/A

**The formative exam aided my revision**



Strongly Disagree
Generally Disagree
Generally Agree
Strongly Agree
N/A

**I understand how the course content will aid my ability to practice medicine**



Strongly Disagree
Generally Disagree
Generally Agree
Strongly Agree
N/A

**Overall the course was enjoyable**



Strongly Disagree
Generally Disagree
Generally Agree
Strongly Agree
N/A

**Overall the teaching of the course was effective**





## Feedback from a Year 1 Student

“I usually think that a 100% rating is something I give when just to be nice (sic) but this session was such a great experience that even describing it to my family on the phone got them very curious and interested.

This session didn't only show a realistic but very skilled (from an untrained perspective at least) interactions between a GP and a patient but ***it also motivated me to improve towards reaching a similar professional level in future interactions.***

This format has a lot more impact on students than model consultation videos found online as it does not feel set up and artificial.”



*Transforming the world  
with greater knowledge  
and learning*

Questions?