

The early determinants of career choices for medical students following an obstetrics and gynaecology placement: mixed methods study

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Abstract

Objective: to explore the impact of attending a clinical placement on selecting a career in obstetrics and gynaecology **Design:** Mixed methods study **Setting:** Imperial College London **Population:** Fifth year medical students attending a clinical placement in obstetrics and gynaecology **Methods:** Between January 2021- January 2022, questionnaires were used and semi-structured focus groups conducted, which were audio recorded. Descriptive statistics were conducted and a framework analysis on transcribed focus groups. **Main outcome measure:** the impact of the clinical placement on career choices **Results:** Six main themes were identified from the analysis; three contributing to considering a career in obstetrics and gynaecology; *pregnancy is not an illness, extraordinary experience of observing childbirth* and *variable specialty* and three themes emerged contributing to not considering a career; *lack of work-life balance, high stakes specialty* and the *emotional toll*. Even at an undergraduate level, medical students exhibited concerns about the long term feasibility of achieving work life balance and avoiding professional burnout, which was partly attributed to the responsibility of looking after both the woman and baby. **Conclusions:** Obstetrics and gynaecology is a challenging high stakes specialty but is also highly rewarding. Students experiences of childbirth during a clinical placement appear to contribute to the consideration of a career in obstetrics and gynaecology. It is crucial to provide a supported and realistic introduction to the specialty, to recruit enthusiastic junior doctors who will be resilient to the pressures of obstetrics.

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Keywords: clinical placement, medical students, obstetrics and gynaecology, career choices

Introduction

A career in obstetrics and gynaecology was an unpopular choice in the early 2000s and the specialty faced low levels of interest (1-4). In 2002, only 2.8% of graduates were considering obstetrics and gynaecology as a career, with lower rates amongst men (1). Factors affecting career choice included prior experience as a student and influence from a teacher or clinician. Workforce planning and obstetric litigation were also important considerations (1). More recently, UK studies (5, 6) have highlighted concerns over a lack of work life balance (7) and a persistent reduction in interest from male doctors (8) as well as the influence of a clinical placement in obstetrics and gynaecology (6, 9).

UK medical students attend a clinical placement in obstetrics and gynaecology, often during the penultimate year of their studies, for between six to eight weeks.

The Royal College of Obstetricians and Gynaecologists (RCOG) produced a working party report in 2009 highlighting the importance of clinical placements in facilitating the acquisition of competencies in preparation for work as a foundation year doctor, Placements can also provide a taster for the specialty, which can positively impact on recruitment (10). During the clinical placement, students are exposed to several clinical areas, including the labour ward and observe childbirth. Previous studies have explored the impact of the length of clinical placements on career choice, finding no significant association (11) and factors affecting early career choice that did not equate to postgraduate career choices (3).

Medical students, driven in their learning towards summative examinations, often overlook the additional benefits of clinical placements in the development of their professional identity (12) but also in the consideration of their future career choices. This can be partly attributed to the change in undergraduate curricula. A survey of UK medical schools in 2006 highlighted the change in undergraduate curriculum over recent years, commenting on the decrease in delivery suite experience (10). In addition to this, there is lack of focus on the hidden curriculum of professional working, as well as increasing competition for foundation year jobs and intake to specialist training.

The aim of this study was to explore the experiences of medical students on a clinical placement in obstetrics and gynaecology at a London university, and the impact and influences of a clinical placement on a career choices in obstetrics and gynaecology.

Methodology

A mixed methods study comprising of online questionnaires and subsequent focus groups was conducted.

Participants

Purposive sampling was conducted. Fifth year students attending a clinical placement in obstetrics and gynaecology at a London medical school, between January 2021 and January 2022, were invited to complete online pre-placement and post-placement questionnaires and then subsequently invited to attend a focus group in the two weeks after the end of their clinical placement (N=313).

Questionnaires

A pre-placement and post-placement questionnaire was developed using the current literature, expert consensus and piloting, to answer the research questions for the study, to explore the impact of the clinical placement and involvement in traumatic birth events on the student's career choices. The questionnaires were completed online via the *Qualtrics* platform and took between 5-7 minutes to complete.

Focus groups

The students were provided with a participant information sheet and had the opportunity to ask questions about the study, before providing electronic written consent. Focus groups were conducted on Microsoft Teams following a validated interview topic guide, which had been developed by the authors based on knowledge of the specialty, a literature review and suggestions from medical students following a pilot study. Each focus group session was conducted by the author ES following training she was given in conducting focus groups by the author AB, and lasted between 45 and 90 minutes. AB was present for the first focus group. No other individuals were present for the remaining focus groups. Focus groups continued until data saturation was achieved and no further focus groups or repeat focus groups were conducted. Reflective notes were made during each focus group by the author ES to aid analysis.

Data analysis

The quantitative data from all completed questionnaires were entered and analysed using IBM SPSS version 27. Both descriptive and inferential statistics were used. A framework analysis was performed on the qualitative elements of the questionnaire.

The focus groups were audio recorded and transcribed verbatim. The transcripts were analysed using a framework analysis to identify themes. The transcriptions were reviewed by the author (ES) and themes developed. All researchers reviewed the transcripts to further refine the analysis and define a final model of organised themes.

Patient and public involvement

We did not engage patients or the public in our study.

Results

Surveys

A total of N=247 questionnaires were completed, N=126 pre-placement questionnaires and N=121 post-placement questionnaires, resulting in a 40% and 39% response rate respectively. The demographics of the participants are shown in (Table 1).

Table 1 Demographics of the medical students

Demographics	Survey
Gender	
n	N= 247
Male (%)	N=99 (40%)
Female (%)	N=148 (60%)
Other (%)	N=0 (0%)
Age	
n	
15-19 (%)	N=0 (0%)
20-24 (%)	N=213 (86.2%)
25-29 (%)	N=32 (13%)
30-34 (%)	N=1 (0.4%)
>35 (%)	N=1 (0.4%)
Ethnicity	
n	
White (%)	N=99 (40%)
Mixed (%)	N=10 (4%)
Asian/Asian British (%)	N=111 (45%)
Black/ Black British (%)	N=19 (8%)
Other (%)	N=8 (3%)

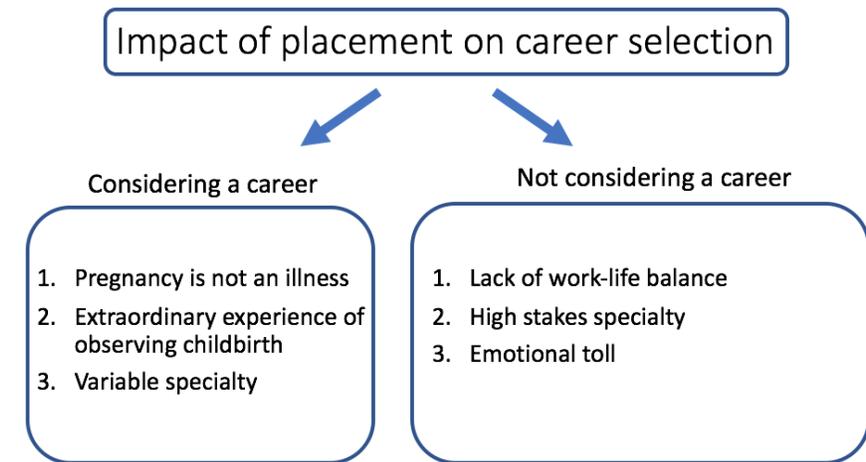
A total of N=30 (24%) students answered yes to considering a career in obstetrics and gynaecology in the pre-placement questionnaires, N=40 (32%) did not want to pursue a career in obstetrics and gynaecology and N=56 (44%) were unsure. A total of N=41 (34%) of the students answered yes to considering a career in obstetrics and gynaecology, N=41 (34%) answered no and N=38 (32%) were unsure.

Seven focus groups were conducted with four to seven students in each group giving a total of N=39 medical students. Data saturation was achieved following the seventh focus group. Students had attended three different hospital sites and almost three quarters of the students identified as female (28/39 female, 11/39 male and 0/35 other).

Focus groups

Six main themes were identified from the framework analysis; three positively and three negatively contributing to considering a career in obstetrics (figure 1).

Figure 1 Themes relating to career choice



Considering a career in obstetrics and gynaecology

Following qualitative analysis of the focus groups, a total of three themes emerged in relation to students considering a career in obstetrics and gynaecology.

Theme 1 “pregnancy is not an illness”

The students described pregnancy as a physiological phenomenon rather than a pathological condition. This is in comparison to the illness and pathology that is seen in other specialties, which was the only student experience prior to this placement. Pregnant women represent a healthy patient population who make an active choice to become pregnant, highlighting the socially acceptable and often relatable situation of childbirth. This was a desirable attribute for students considering a career in obstetrics, contrasting from the illness and pathology seen in other specialties.

FG1 F2 “Like these patients are more or less generally healthy, like you’re on a cardio or resp ward where they are quite unwell and you are trying to help them get better. Here, most people are fine and hoping for like a normal, like an uncomplicated delivery.”

The students described the subtheme of labour ward being a “happy environment”, demonstrating this somewhat unique element of obstetrics, where patients are optimistic and happy to enter the health service and leave with a healthy baby.

FG2 F4 “It is really nice to have a specialty where like the majority of it is really positive. And people are happy and you are kind of there for one of the best moment of their life.”

Theme 2 “extraordinary experience of observing childbirth”

The students discussed the privilege of contributing to safe childbirth and the positive impact this has on the woman as a reason to consider a career in obstetrics and gynaecology

FG2 F6 “I think it’s just seeing how medical or healthcare professionals can turn this really potentially stressful event [childbirth] into something that isn’t as stressful or maybe it was as enjoyable for the patient. . . the way you talk to a patient and the way can interact what their memory is of the experience [of childbirth] and I think that is something that is something that is quite special to the specialty.”

This highlights the satisfaction that can come from working in the specialty, through facilitating safe childbirth and empowering women during this time, providing fulfilment to clinicians working in obstetrics.

Theme 3 “variable specialty”

The students attributed how varied and exciting the specialty is, as a reason to want to pursue a career in obstetrics and gynaecology, but also why they enjoyed the placement, highlighting the mix of both medicine and surgery, and the practical exposure the specialty provides.

FG5 F13 “I actually enjoyed it [the placement] a lot more than I thought I was going to. And what I like about it, is that it is so varied, you have the obstetrics side, you have the gynae side and it’s like even though medicine in general, there is always going to be different things going on, I think obs and gynae is like on another level. Because no two days will ever be the same.” *FG5 M8 ‘O+G is probably the most varied in terms of the number of things that could be going on. There are so many different disciplines working together in time, whereas usually on a ward you have a ward round and then jobs. And that’s it then until the afternoon, so it’s a lot more simple’*

The labour ward is a fast-paced environment that relies on multi-disciplinary team working, providing clinicians with a varied and often adrenaline fuelled role that this study has demonstrated was a consideration in students choice of careers.

Not considering a career in obstetrics and gynaecology

Following qualitative analysis of the focus groups, a total of three themes emerged in relation to students not considering a career in obstetrics and gynaecology.

Theme 1 “lack of work-life balance”

The students described a desire for a work life balance and that this may be difficult to achieve in a career in obstetrics and gynaecology. The students developed this fear following the clinical placement, working shift patterns, which included out of hours working and night shifts, observing and working with staff, but also following conversations with healthcare professionals (predominantly junior doctors).

FG5 M8 “So I know I definitely want O+G in my future...well partially. I think the only thing that is stopping me is, because I picked GP, for work life balance. And I think that is the only thing at this point that is stopping me from O+G.”

Theme 2 “high stakes specialty”

The students commented on the responsibility involved in looking after women in labour discussing the situations where they had observed a bad outcome for either the woman or baby. The perceived high levels of responsibility, accountability and resulting stress were also mentioned.

FG6 F17 “I really like it as a placement but as a student... I don’t know if I could deal with the level of stress and be responsible for this and if something goes wrong, you are the person they look to.”

When asked how this compares to other specialties, students discussed the differences seen in medical and surgical specialties, including the significance of looking after two patients, the woman and baby:

FG6 F24 “yes, because they are healthy when they come through the door and then they leave either not healthy or without their baby. The stakes are high.”

Theme 3 “emotional toll”

Following on from theme two, the students discussed the emotional toll of working in a high stakes specialty, particularly if there was a bad outcome for either the woman or baby, emphasising the heightened emotional burden that comes with the responsibility of working in obstetrics.

FG6 F20 “I don’t like the responsibility of having to take care of the baby as well, um coz if things so wrong, in terms of during labour, if things go wrong, because things should not go wrong. If things go wrong it’s bad. I can’t imagine how guilty one must feel if something um goes wrong in labour and the baby suffers.”

Student fears of observing poor outcomes and experiences of upsetting birth were cited as traumatic, demonstrating the weight of the emotions that students and clinicians are expected to manage in obstetrics.

FG6 F18 “I was really scared about seeing a stillbirth. That was my biggest fear going into the placement like I was like I don’t know how I am going to cope. I’ve seen the baby come out at c section really floppy.. I was just scared in the corner like I don’t’ want to be in the way. I think for me it was really difficult.

Discussion

Main findings

Career selection in medical students is a complex and dynamic process (13). Undergraduate experiences on clinical placements have been cited by several studies to contribute to career selection (14-16). Following our review of the literature, this is the first research study to explore the impact of a clinical placement in obstetrics on medical student’s career choices using a mixed methods approach.

The results of the questionnaire and interviews have demonstrated student interest in obstetrics both before and after a clinical placement in obstetrics and gynaecology. Obstetrics involves healthcare professionals facilitating safe childbirth whilst attempting to empower the women during a momentous moment in their lives, which was highlighted by students as a positive and unique feature.

Student experiences during clinical placements will inevitably vary and so undergraduate exposure to obstetrics may vary not only between universities, but also hospital placements within the same university. In addition, the previous requirement by many medical schools to “witness a certain number of births” has been removed from many medical school curricula, which may contribute to the reduction in exposure students have to this unique environment and thus reducing this impact this can have on choosing obstetrics as a career (10).

Commonly, medical students describe their experiences of observing childbirth as an enriching and emotionally fulfilling experience, contributing positively to their wellbeing and a strong reason to consider a career in obstetrics and gynaecology, or at least consider a foundation year job in the specialty. It is important to consider the variation in exposure students will have to childbirth and this can include the frequency and type of deliveries they see. Students describe the difficulties in exposure to uncomplicated vaginal births, due to opportunities and patient refusal or student midwives prioritisation. This is an important point to consider for the impact of exposure on career choice but also the implications for their own future birth choices as a clinical placement in obstetrics and gynaecology may be the only exposure students have to childbirth before they have their own children. In addition to promoting the benefits of a clinical placement in obstetrics and gynaecology, students may also benefit from opportunities to discuss the perceived problematic aspects of the specialty, including the concerns about work life balance demonstrated in our study.

The introduction of the European Working Time Directive (EWTD) in 2003 has reduced the undesirable impact of working long hours on work-life balance, yet some students still find the current practice of out of hours and shift work off putting. Shadowing junior doctors can provide a realistic representation of life in obstetrics and gynaecology, and the mentorship provided is known to improve interest in a career in obstetrics and gynaecology (17). Studies have shown that a positive experience of a clinical placements, which includes positive learning experiences, being integrated into the team, and having role models and mentors, can increase interest in a career in that specialty (18, 19). Support from mentors and role models can further promote the positive aspects of the specialty and also protect students from professional burnout.

Strengths and Limitations

The results from this qualitative research study are from a cohort of students at one medical school in the UK and therefore may not be generalisable to all UK medical students. The response rate for the questionnaires was 37% which may have meant some views were not captured, although focus groups were conducted until data saturation and showed good internal consistency. There may have been selection bias in the students who completed the questionnaires and participated in both the focus groups, as students with an interest in obstetrics and gynaecology may show more interest in participating, although few of the students expressed a strong inclination to choose a career in obstetrics and gynaecology.

Conclusion

A clinical placement in obstetrics and gynaecology can be an enriching experience for students, providing a unique opportunity to look after a healthy, motivated population and observe childbirth. Many of the required competencies of a foundation year doctor can be achieved during the undergraduate placement as well as illuminating students to the practicalities of working in obstetrics, that can promote interest in considering a career in obstetrics and gynaecology. It is important to consider the role of open discussions about career choices, to promote the recruitment of enthusiastic doctors who possess the qualities that align with the profession, in order to safeguard the future of the workforce.

Practical and research recommendations

Future research should explore interventions that encourage students to consider a career in obstetrics, and evaluate the impact of foundation year jobs in obstetrics and gynaecology.

Ethics statements

Ethical approval

This study received local ethics approval from Imperial College Research Ethics Committee (ICREC) through the research governance and integrity team (RGIT), reference number 20IC6434. All participants provided electronic informed consent.

Data availability statement

Data are available from the corresponding author (esein@ic.ac.uk) on reasonable request.

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Footnotes

Contributors: All the authors participated in designing the study and interpreting the data. All the authors critically revised the manuscript. All authors were involved in the development of the protocol, validated topic guide, and interpretation of the analysis. ES conducted the focus groups, transcribed and analysed the qualitative data and wrote the first draft of the manuscript. The corresponding author attests that all listed authors meet authorship criteria and no other meeting criteria have been omitted.

Transparency declaration: The lead author, Eleanor Sein, affirms that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

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