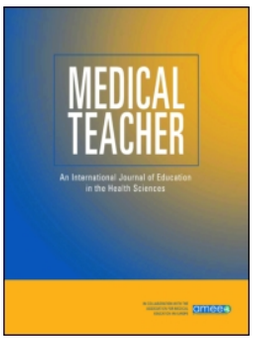

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Medical students and intimate examinations: What affects whether a woman will consent?

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ABSTRACT

Objective: Undergraduate medical students often struggle to gain satisfactory competence levels in intimate examination. What factors increase the likelihood of a woman allowing a student to perform an intimate examination?

Methods: Questionnaires were given to women attending a tertiary gynecology hospital. Women were asked a series of questions about what would influence their decision to agree to be examined by a student. Demographic data and data on previous gynaecological history and preferences on any student who might see them in clinic. We asked women to indicate their willingness to agree to vaginal examination (but not to undergo the examination).

Results: Age, parity or civil status or the source of the request did not affect willingness to have a vaginal examination. The woman's hypothetical agreement was positively affected by the student's gender (female) and age (preferring older students); positively affected by an informal/relaxed manner and smart presentation, and positively by whether the woman had experienced gynecology clinics before. An association existed between being willing to be examined and whether the student had engaged with the woman by finding out what her presenting complaint was.

Conclusions: Women's willingness to agree to vaginal examination is influenced by several student-related factors, some modifiable.

Introduction

For many years in anecdotal feedback and, more recently, in the medical education literature, the challenges that male medical students face in performing bimanual pelvic examinations on women have been acknowledged. Since these publications (Ching et al. 2000; O'Flynn and Rymer 2002), a number of advances including gynecology teaching associates (Smith et al. 2015) and dedicated teaching clinics (Swingler et al. 2010) have been introduced to facilitate this process. However, it is still not clear as to why students face these difficulties – is there anything that can be changed in the way we approach this to improve the situation? In our education setting, students are required to be competent in vaginal examination to complete the attachment, in line with national curriculum outcomes (RCOG 2009). A student's examination by would normally be followed by the teacher undertaking it, to ratify the findings and as part of the routine examination. To understand whether any particular factors influence a woman's agreement to a vaginal examination, we surveyed woman attending gynecology clinics in a tertiary university hospital.

Practice points

- For students who want to perform vaginal examinations on women, they are more likely to be successful if the student is female and older.
- Establishing a rapport with the patient, for instance by taking a history, is more likely to lead to a positive response to a request to undertake a vaginal examination.

Methods

This study used a questionnaire method, designed based on published examples (Ching et al. 2000) with design input from academics in the University's Department of Social Medicine and refined by the Research and Development Team in the hospital where the study was undertaken. Ethical review and approval for this study was obtained from the North Somerset Local Research Ethics Committee. Data analysis was undertaken using Minitab 18 (Minitab Ltd, Coventry, UK) for categorical variables, using χ^2 test or Fisher's exact test as appropriate.

Questionnaires were circulated by placing them with patient records when patients attended an outpatient appointment. Patients were provided with the questionnaire (see Appendix 1), a letter of invitation and an information sheet from the authors; they were free to discard or take part as they wished. The questionnaire asked women to consider their response to a hypothetical request for vaginal examination by a medical student. We did not ask whether the women actually consented to intimate examination, but rather whether they were willing to be so examined. As a result, no outcomes from student examination were examined or analyzed as part of the study. The study was undertaken in one hospital over a 2-week period, during which all women attending gynecology clinics were offered a questionnaire by the clinic administrative staff.

No identifying data were collected. We collected data on age, relationship status, ethnicity, parity of the woman,

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Table 1. Women returning the completed survey ($n = 233$): demographic data.

Age	<20	20–29	30–39	40–49	50–59	60–69	≥70
	2	38	57	56	34	26	18
Civil state	Single	Relationship	Married	Widowed	Divorced	Undeclared	
	34	58	104	14	19	4	
Parity	Nulliparous	Primiparous	Multiparous	Undeclared			
	65	49	113	6			

previous gynaecological history (attending clinics and experience of medical student examination), preferences of the woman on student characteristics (age, gender, ethnicity, dress code adherence), whether the attending clinical person asking made any difference to the likelihood of agreeing to be examined. Free text comments were collected and systemically analyzed using content analysis methods (Bryman 2014).

Results

During the 2-week period of the study, 281 questionnaires were distributed and 233 were completed (83%). The demographics of the population studied are similar to those reported in other studies on this topic (Amaechina et al. 2016) – half were 30–50 years of age (47%), married or widowed (51%) and 70% had one or more children (Table 1). Analysis by ethnicity was not performed as 24% did not provide a breakdown of ethnicity.

The woman's age, parity or civil status did not affect her willingness to have a vaginal examination. Nor was it affected by whether the request came from the student or a more senior health professional (Table 2).

The woman's willingness to have a vaginal examination was positively affected by the student's gender (65% preferred female student; 8% preferred male; remainder undecided; χ^2 test 47.6, $p < 0.001$) and age (with a preference for an older student) (χ^2 test 7.19; $p = 0.007$); by an informal/relaxed manner and by being smartly presented (χ^2 test 47; $p < 0.001$) and by whether the woman had experienced gynecology clinics before (χ^2 test 7.41; $p = 0.006$). We also noted a positive effect for whether the student had spent time finding out what her presenting complaint was (χ^2 test 49.3; $p < 0.001$) (Table 3).

Free text responses from 49 women were analyzed and summarized in Table 4. Women's key concerns about a student performing their vaginal exam lay in their perceptions of the examination. The impact of the exam was perceived as embarrassing and putting women in a vulnerable position. This is summed up by participant 39 (Table 4). A number also characterized the exam as physically painful or uncomfortable (5/49). Previous experiences or health issues were cited (in 8/49) as a reason for avoiding a student examining them. This often linked to the context of the particular examination, where it perhaps was linked to a cancer diagnosis or concerns that a student would miss something that a more experienced clinician would pick up.

In terms of the person performing the exam, six responses preferred an experienced or expert clinician. In talking about students, four comments referred to gender, either preferring a female student or being uneasy with a male student. Five comments acknowledged the need for students to practice before going on to say why they didn't want a student to exam them. They may feel some sense of obligation – "not fair I know, but I feel that what I already do is enough" (no. 2). Two responses showed participants were willing for students to be observers, but this wasn't always the case and is picked up in the theme on the context of the exam. Eleven responses were linked to the context of the particular exam participants were considering, referring to the difficulty of having multiple exams or clinicians/students examining them (4 of 49). A student exam was sometimes referred to as "unnecessary". However, as with observing, two respondents were happy to have a student undertake a "routine" exam. In this category, concerns were raised due to previous diagnosis and the possibility of the student missing clinical signs, as referred to earlier.

Table 2. Willingness to undergo vaginal examination by age, parity and civil status.

Age*	Willing	Uncertain	Unwilling
20–29	4	21	12
30–39	12	29	14
40–49	19	23	13
50–59	11	16	7
≥60	9	10	4
Parity**	Willing	Uncertain	Unwilling
Never	13	30	20
Parous	52	68	35
Civil status***	Willing (65)	Uncertain (102)	Unwilling (56)
Single	5	14	13
In a relationship	13	34	11
Married	33	42	24
Divorced	8	8	2
Widowed	4	3	5

*χ^2 test 8 d.f., not significant;
**χ^2 test 2 d.f., not significant;
***χ^2 test 2 d.f., not significant.

Table 3. Willingness to undergo vaginal examination if previously interviewed.

	Previously Interviewed	
	Yes	No
Unwilling	32	16
Uncertain	82	19
Willing	56	7

χ^2 test 2 d.f., 49.3, $p < 0.001$.

Discussion

Gaining experience in intimate examination is a required practical skill. Being able to do so calmly, confidently and empathically is an important milestone in a medical student's professional education. It is the subject of much scrutiny, as students continue to struggle to find adequate numbers of patients willing to be examined (Koehler and McMenamin 2012), and teachers develop innovative methods to improve the student experience (Pickard et al. 2003;

Table 4. Content analysis of the free text received from 49 respondents (numerals indicate the patient(s) relating to the response.

Themes	Sub-themes	Codes	Example quotes
Women's perception of the exam (47)	• Emotional experience (30) • Physical experience (5) • Previous experience of exam (6) • Previous experience – health (2)	Uncomfortable (7), embarrassing (6), personal (4), nervous (3), stress (2), vulnerable (2) Uncomfortable (3), painful (2) Bad experience (3), difficulties (2), so many (1) Cancer (2)	This is a very invasive procedure, which is uncomfortable and embarrasing, I can bearly stand the consultant doing it let alone having an audience! (no. 39)
Person performing exam (21)	• Expert (6) • Student ○ Gender (4) ○ Observer (2) ○ Understanding need for practice (5) ○ Lack of experience/expertise (3)	Consultant (2), experienced, trained, fully competent, doctor Prefer female Student as observer	Whilst I appreciate that a student need to have some practice, a vaginal examination is too personal for someone to have "a stab or poke around in the dark" (no. 44) They might not know what they are doing (no. 38)
Context of the examination (11)	• Multiple exams and examiners (4) • Concern about diagnosis/missed diagnosis (3) • Routine exam (2) • Unnecessary exam (2)	Happy for a student to do routine smear See a second student exam as an unnecessary exam	Already difficult with one let alone 2 (no. 4) Wouldn't like them to practice in case anything is missed or done incorrectly (no. 10)

Swingler et al. 2010). Our findings suggest there are factors that might lead to a higher likelihood of a patient agreeing to an intimate examination (in this case, vaginal examination). Despite there being a more positive response to a request for examination when the woman had prior experience of an examination, there were some anomalous findings whereby 8 out of 46 reporting this would be a reason not to accede to a request.

These factors include the student being female, the student being older (both immutable factors), being relaxed in manner and smartly dressed, and engaging in history taking with the patient prior to making the request. Female students have been described elsewhere as being more likely to have access to intimate vaginal examinations (O'Flynn and Rymer 2002; Racz et al. 2008) while older students are more likely to be acceptable for any sort of examination, excluding genital examination (Koehler and McMenamin 2012). The last finding (the impact of engaging in history taking with the patient) which has not been shown elsewhere, supports our approach: medical students are encouraged to gain experience in vaginal examination in the clinic setting, though this is pragmatic rather than intentional. In our department, students are given time to take a history and develop a rapport with the patient before conducting a supervised gynecological examination. Our findings add weight to the value of this "history first" method brings benefits over other methods of teaching vaginal examination (gynecology teaching associates and dedicated teaching clinics), in that it exposes the student more acutely to the professional challenges associated with performing intimate examination. The apparent contradiction of being relaxed and smartly dressed is probably related to these factors portraying professionalism.

In other publications in this area, increasing patient age was associated with a greater likelihood of agreeing to be examined (Racz et al. 2008; Koehler and McMenamin 2012; Mills et al. 2015). We did not confirm this or of any effect of parity or civil state. In essence, we found that women's stated willingness to agree to a vaginal examination is influenced by several student-related factors, some of which are immutable, but of which are subject to change – we suggest students and medical educators take note of these.

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Dr Ellayne Fowler, Co-Director of the Teaching and Learning for Health Professionals, University of Bristol, undertook the free-text content analysis presented in this article.

Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this article.

Glossary

Intimate examinations: Can be embarrassing or distressing for patients and whenever you examine a patient you should be sensitive to what they may think of as intimate. This is likely to include examinations of breasts, genitalia and rectum, but could also include any examination where it is necessary to touch or even be close to the patient.

https://www.gmc-uk.org/guidance/ethical_guidance/30200.asp

Informed consent: How a patient learns about and understands the purpose, benefits, and potential risks of a medical examination or intervention and then agrees to have the examination or treatment.

Barriers: Processes which might affect an individual's ability to provide substantial informed consent (such as content and readability of the consent form, timing of discussion, and amount of time allotted to the process).

Notes on contributors

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Appendix 1 Questionnaire

Part One: About Yourself

Age: **Please tick the box that corresponds to your age group:**

0–19 ☐ 20–29 ☐ 30–39 ☐

40–49 ☐ 50–59 ☐ 60–69 ☐

70–79 ☐ 80–99 ☐

Status: **Please tick the box that describes you most accurately:**

I am single ☐ I am in a long-term relationship ☐

I am married ☐ I am widowed ☐ I am divorced ☐

Nationality: **Please select the group that you identify with the most:**

British or Mixed British ☐ English ☐

Irish ☐ Scottish ☐ Welsh ☐

Other (specify if you wish)..... ☐

Ethnicity: **Please select the group that you identify with the most:**

Asian

Bangladeshi ☐

Indian ☐

Pakistani ☐

Other Asian background (specify if you wish) ☐

.....

Black

African ☐

Caribbean ☐

Other Black background (specify if you wish) ☐

.....

Chinese

Any Chinese Background (specify if you wish) ☐

.....

Mixed

Asian and White ☐

Black Caribbean and White ☐

Black African and White ☐

Other Mixed Background (specify if you wish) ☐

.....

White

Any White Background (specify if you wish) ☐

.....

Children: **Please tick the box that applies to you most accurately:**

I have never given birth ☐

I have given birth once ☐

I have given birth more than once ☐

.....

Contact with a Gynaecologist: Please answer the following questions

a) Have you ever had a cervical smear test done?

Yes ☐ No ☐

b) Have you ever been to a gynaecology (women's health) clinic before?

Yes ☐ No ☐

c) If you answered 'Yes' to the previous question, have you ever been asked to have a medical student present during your consultation with the doctor?

Yes ☐ No ☐

d) If you answered 'Yes' to the previous question, did you allow the medical student to be present during your consultation with the doctor?

Yes ☐ No ☐

.....

Part Two: About Your Opinion towards having Medical Students Participating in Gynaecology (Women's Health) Clinics

Would you consider allowing a medical student to observe your consultation with the gynaecologist (women's health doctor)?

Yes ☐ Possibly ☐ No ☐

Would you consider allowing a medical student to practise doing a medical interview with you?

Yes ☐ Possibly ☐ No ☐

Would you consider allowing a medical student to practise doing a vaginal examination with you?

Yes ☐ Possibly ☐ No ☐

If you answered 'No' to any of the previous three questions, please write your reasons for doing so here

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If you answered 'Yes' or 'Possibly' to any of the last three questions, please continue with the following questions, which ask about your preferences towards having medical students in gynaecology (women's health) clinics

Please indicate whether you would have a strong preference, a weak preference, or no preference in the following situations by ticking the appropriate box on the table overleaf

		Strong Preference	Weak Preference	No Preference	Weak Preference	Strong Preference	
1.	I would prefer more than one medical student in the clinic						I would prefer one medical student in the clinic
2.	I would prefer the medical student to be female						I would prefer the medical student to be male
3.	I would prefer the medical student to be aged 21–25						I would prefer the medical student to be aged over 26
4.	I would prefer the medical student to be of the same ethnicity to me						I would prefer the medical student to be of a different ethnicity to me
5.	I would prefer the medical student to be from the UK						I would prefer the medical student to be from abroad
6.	I would prefer the medical student to be informal and friendly with me						I would prefer the medical student to be very formal with me
7.	I would prefer the medical student to be very attractive						I would prefer the medical student to be not so attractive
8.	I would prefer the medical student to be smartly dressed						I would prefer the medical student to be casually dressed
9.	I would prefer the medical student to wear a white coat						I would prefer the medical student not to wear a white coat
10.	I would prefer the medical student to be in the clinic when I am on my monthly period						I would prefer the medical student to be in the clinic when I am not on my monthly period

11. Would you be more likely to agree to have a medical student in your clinic if a nurse or doctor asked on their behalf, or if the student asked you himself or herself?

Nurse ☐ Doctor ☐ Medical Student ☐ No Preference ☐

12. Would you be more likely to allow a medical student to practise performing a vaginal examination with you if he or she had first done a medical interview with you?

Yes ☐ No ☐

THE END

If you have any additional comments you would like to make about the issues surrounding having medical students participating in your care, please feel free to use the space below.

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