



The Attitude of Patients Towards the Presence of Medical Students in a Breast Clinic: A Self-Administered Questionnaire Based Audit

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Abstract

Background: It is widely acknowledged that medical students need to learn the skills involved in a breast clinic, such as history taking, examination technique, requesting appropriate investigations, giving bad news effectively and adequate post-operative care. In order to gain these skills, medical students are required to attend breast clinics necessitating patient participation. The aim of this audit was to investigate the difference in attitudes of patients towards the presence of male and female medical students in a breast clinic.

Methods: In a breast clinic in two teaching hospitals, 132 consecutive patients completed a confidential, self-administered questionnaire before the clinical consultation.

Results: Only 30% of patients were comfortable with a male medical student taking their history compared to 48% with a female medical student. While 23% of patients were comfortable with a male medical student examining them compared to 45% with a female medical student.

Discussion: The perceived acceptance of patients towards the presence of male medical students in a breast clinic is relatively low, potentially highlighting a need for adaptive teaching techniques such as the use of patient-focused simulation.

Keywords: Breast clinic; Medical student(s); Patient attitude(s); Patient satisfaction; Gender differences

Introduction

The clinical education of medical students has always posed a significant ethical dilemma [1]. A balance must be found between the best management of the patient and the education of the medical student. The General Medical Council acknowledges that intimate examinations can be embarrassing and distressing for patients [2]. Therefore, the patients attending breast clinics may be more likely to experience embarrassment and distress than patients attending clinics where intimate examinations are not routinely undertaken. It is the doctor and other members of the multidisciplinary team who must ensure that a patient's discomfort is minimized. It is therefore important to assess the impact that medical student involvement in their care may have.

It is well recognized that medical students benefit from the experience and educational opportunities offered in outpatient clinics [3,4]. Medical students also gain more from real patients than from simulations, even when intimate examinations are involved [5]. Where breast clinics are concerned, it is necessary to acknowledge medical students' need to learn the skills involved in a breast clinic, primarily breast history taking, examination technique, requesting appropriate investigations, giving bad news effectively and adequate post-operative

care. A structured training in the breast clinic can provide a greater understanding of the management of breast disease in the formative years of clinical training [6].

As far as the authors are aware there is no current evidence regarding the attitude of patients to the presence of medical students in a breast clinic. There is, however, evidence to suggest that the presence of medical students in general accepted by patients during consultations [7] and overall have little effect on a patient's experience in an outpatient clinic even if the patient sees the students initially without a doctor present [8,11]. Various studies have looked at patient attitudes towards medical students in different outpatient clinics, including: Ear Nose and Throat [9], Internal Medicine [10], Dermatology [11,12], Obstetrics/Gynecology [13,14], Family Medicine [15], Genitourinary Medicine [16,17] and Colorectal surgery [18]. One study looked at the variation in patient attitudes across five different specialties simultaneously (Family Medicine, Obstetrics/Gynaecology, Urology, General Surgery and Pediatrics) [19]. Medical students were positively accepted across most specialties [9-12,15-19].

In addition to a wide acceptance of medical students, several studies found that overall patients were comfortable with both student genders but reported significantly higher comfort levels with medical students of the same sex as them [11,12,16] or with female medical students compared to male medical students [14,16-19]. Where patient gender is concerned women were less comfortable with

medical students than men in general [10,16-18]. There was also an association between the level of acceptance of medical students and increasing patient age, with older patients feeling more comfortable with the presence of medical students than younger medical students [7,9,10,14,16].

In terms of medical student involvement in their care, patients reported a decline in comfort with increasing medical student involvement, with patients feeling the least comfortable with medical students performing invasive examinations [13,16,19]. In most specialties, where it was measured, there is a correlation seen between the acceptance of medical students and the number of previous visits to the clinic [13,16]. In general, patients who had had previous experience of medical students were more comfortable with the idea of medical students being present during their consultation than patients who had not [7,10,13,17].

Only in Obstetrics/Gynaecology and Genitourinary medicine was there a significant decrease in the proportion of patients feeling comfortable with the presence of medical students in comparison to other specialties [13,14,17,19]. Patient attitudes in Obstetrics/Gynaecology as well as Genitourinary medicine may be comparable to those seen in patients attending breast clinics. These specialties all involve intimate examinations and the patients attending breast clinics are predominantly female making a comparison with Obstetrics/Gynaecology specifically relevant.

With regards to the previous research, the purpose of this audit was to determine the attitudes of patients towards the presence of medical students in a breast clinic. This audit particularly focused on the impact of the gender of the medical student, the level of involvement of medical students in patient care, the impact the presence of a doctor in the room alongside the medical student has on patient comfort, the age of patients and the impact of previous visits to breast clinics, including the presence of previous medical students.

Patients and Methods

132 consecutive patients attending breast clinics in two large teaching District General Hospitals completed a confidential, self-administered questionnaire regarding their attitude to the presence of male and female medical students in breast clinics over a period of 3 months. In order to minimize any presence bias, patients completed the questionnaire before seeing a clinician. Patients were asked how they felt about eight different statements regarding how comfortable they would be with the presence of medical students at their appointment. The respondents indicated their respective preference by using a 10 point scale where 1 indicates strongly disagree and 10 indicates strongly agree with the given statements; A neutral response was assigned a score of 5. Therefore, a score higher than 5 indicated that respondents agreed with the statement.

In order to explore the past experience of patients with regards to the presence of medical students in the breast clinic, information was also gathered about the number of times the patient had visited the breast clinic before, and of these how many times, if any, medical students were present during their appointment. Patients were also asked for their age and if they would like to make any further comments.

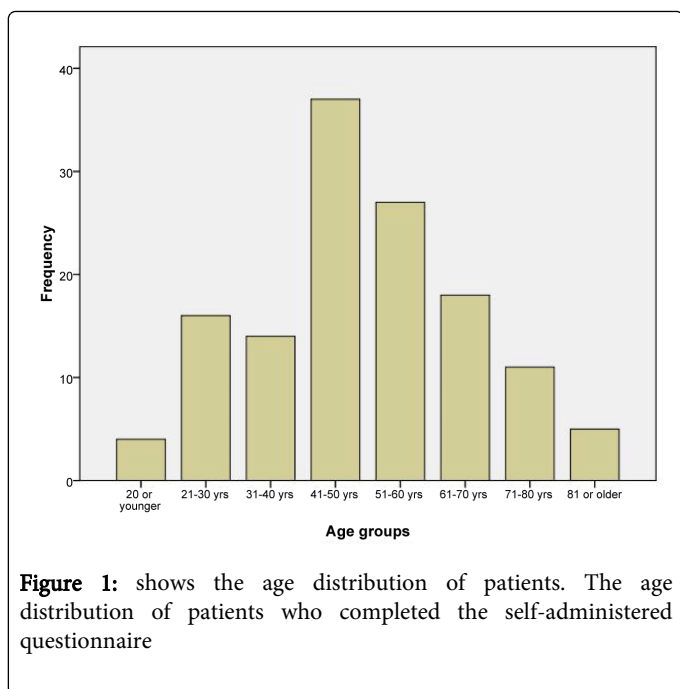
All statistical analyses were carried out using SPSS™ package and data are reported as percentages, means and standard deviations.

Results

The overall results of the study are summarized in Table 1. Mean levels of agreement and standard deviations for each statement are given.

	N	Mean	Std. Deviation
I would feel comfortable with a Male Medical Student asking me questions with a Doctor in the room	132	6.27	3.006
I would feel comfortable with a Female Medical Student asking me questions with a Doctor in the room	132	7.92	2.398
I would feel comfortable with a Male Medical Student examining me with a Doctor in the room	132	5.67	3.277
I would feel comfortable with a Female Medical Student examining me with a Doctor in the room	132	7.83	2.703
I would feel comfortable with a Male Medical Student asking me questions on their own	132	5.07	3.158
I would feel comfortable with a Female Medical Student asking me questions on their own	132	6.58	3.072
I would feel comfortable with a Male Medical Student examining me on their own [with a chaperone]	132	4.48	3.149
I would feel comfortable with a Female Medical Student examining me on their own [with a chaperone]	132	6.23	3.130
Valid N [list wise]	132		

Table 1: The main results from this study showing the number of patients, the mean response on the ten point scale (where one indicates strongly disagree and ten indicates strongly agree) and the standard deviation for each question.



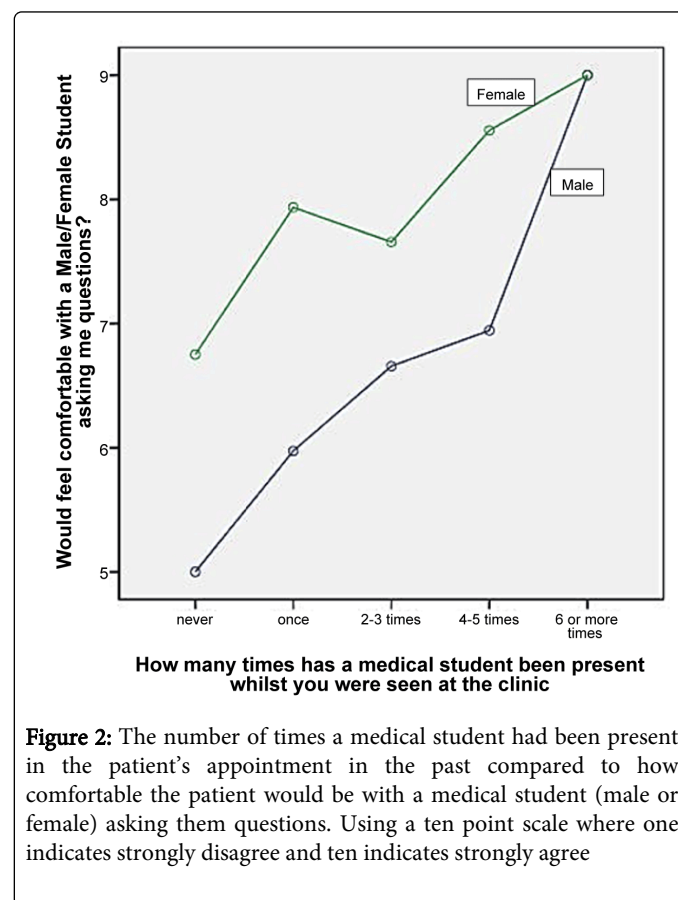
Overall, patients reported that they would feel comfortable (a score greater than or equal to 5) with medical students of both genders in all scenarios except for a male medical student examining them on their own [with a chaperone present]. Patients reported that they would feel significantly more comfortable with female medical students than male medical students in all scenarios ($p=0.0005$).

There was a decline in patient comfort with an increase in the involvement of the medical student, i.e. the difference between merely asking questions and the student actively examining the patient, which was found to be statistically significant ($p=0.02$). When the results were broken down into male and female medical students the decline in patient comfort was statistically significant when male medical students were involved ($p=0.003$) but not when female medical students were involved ($p=0.17$).

Patients reported that they would feel significantly more comfortable if a doctor was present in the room at the same time as the medical student when they were asking questions or examining the patient ($p=0.0004$), regardless of student gender [male medical student $p=0.001$ and female medical student $p=0.03$ and regardless of whether or not the student was just asking questions or performing an examination (asking questions $p=0.02$ and examining the patient $p=0.05$).

Only approximately a third (30%) of patients reported that they would feel entirely comfortable (i.e. recording a maximum of ten on the ten point scale to statement one, see Table 1) with male medical students taking their history compared to approximately half [48%] reporting feeling entirely comfortable with female medical students taking their history. While approximately half (45%) of patients were entirely comfortable with female students examining them, less than a quarter (23%) of patients were entirely comfortable with being examined by a male medical student. Approximately a third (31%) of patients reported a preference (being entirely comfortable) towards female medical students in the breast clinic compared to roughly a sixth (17%) who reported a preference (being entirely comfortable) towards male medical students. Older patients (age group 51-60 years)

were more comfortable than younger patients with the presence of a medical student during their consultation. Whilst women in the 21-30 age group was the least comfortable with the presence of students in the breast clinic, at this age the gender difference was most significant as less than a third (29%) of patients were comfortable with female students present in the clinic and less than a sixth (15%) felt comfortable with the presence of a male medical students. There was a trend towards acceptance of medical students both male and female by patients who had been seen in the breast clinic before. Similarly, there was a trend towards acceptance of medical students (both male and female) if they had been present in a patient's appointment in the past (Figure 2).



Discussion

To the best knowledge of the authors this is the first report addressing patients' attitudes towards the presence of medical students in a breast clinic. This audit focused on the impact of the gender of the medical student, the level of involvement of medical students in patient care, the impact the presence of a doctor in the room alongside the medical student has on patient comfort, the age of patients and the impact of previous visits to breast clinics, including the presence of previous medical students. These will now each be discussed in turn.

Overall, previous research has shown that patients are comfortable with the presence of medical students in their consultations [9-12,15,16,18,19] only in Obstetrics/Gynaecology and Genitourinary Medicine was there seen any significant decrease in patient comfort compared to other specialties [13,14,17,19]. The results of this study support this evidence to some extent; overall patients reported that

they would feel comfortable with the vast majority of scenarios [with the exception of a male medical student examining the patient on his own [with a chaperone]. However, it was found that patients were significantly more comfortable with female medical students compared to male medical students, a finding similar to that found in Obstetrics/Gynaecology [14,19].

The results of this audit also found that there was a decline in patient's perceived comfort with an increase in student involvement, this is mirrored in other studies with a decrease in patient's perceived especially seen when intimate examinations are performed [13,16,19]. Women have been shown to be less accepting of medical students in general [10,16,17,18] and as the vast majority of patients in a breast clinic are female this may be one of the explanations for this decrease in perceived acceptance.

An interesting result was that of patients feeling significantly more comfortable when a doctor was present in the room at the same time as the student, regardless of student gender or the involvement of the student. This has not been studied in great detail in the past, but those studies that did look at the impact found nothing significant [8,11].

As previous studies have shown, older patients reported that they would feel more comfortable with the presence of medical students than younger patients [7,9,10,14,16]. Our results also suggest that older women have higher perceived acceptance of the presence of medical students during consultation in comparison with younger ones. It is possible that a possible explanation for this may involve factors beyond the age of the patient, which may influence her perception, such as previous visits to hospitals, more accepting nature or other factors.

Patients also reported feeling more comfortable both if they had been seen in the breast clinic before and if there had been medical students present in their appointment in the past, which is again mirrored in the literature [7,10,13,16,17]. In non-breast specialists, patients with previous experience reported less discomfort with the presence of medical students. Similarly, the results presented in the present paper show that women with clinical experience feel less uneasy with students, suggesting that once the patient has experienced the presence of students, her perception changes. Therefore, it could be argued that the patients could complete the questionnaire after the consultation (and not before as in the present paper) to provide a more realistic insight? While accepting the point, we argue that administering the questionnaire post-consultation would have excluded all those patients who have declined the presence of medical student during the consultation. This would have biased the results of the questionnaire. We do accept that the perception of women can change after the consultation. Our data demonstrated that more experience (measured through the number of consultations with a student present) increases the level of comfort in the presence of students, and that the difference between male and female students vanishes with more visits (6 times or more).

One of the important questions that this audit did not ask is the reasons why patients do not feel comfortable with medical students. Although there is no evidence from the breast clinic, in Obstetrics/Gynaecology and Genitourinary medicine the main reasons cited by patients is that of a desire for privacy [13,17,20], a concern that students might hinder their care in some way [17,20], general concerns about being examined by a student, a lack of control over the students level of involvement and a longer consultation time [17].

There are several limitations to this present audit. The questionnaires were completed on a voluntary basis and so there may have been some selection bias, comparison of responders and non-responders attitudes is not possible. Although patients were encouraged to leave comments on the questionnaire the rest of the questions were closed and therefore it might be interesting to see if responses differed in a more open questioned scenario, such as an interview. This study also assumed that patients understood who medical students were and that they are training to become doctors.

In the present study, patients completed the questionnaire before clinical consultation. It could be argued that as the patient responded about how comfortable she would feel with medical students in the room before really experiencing the consultation, we measured the perception rather than acceptance after the experience. In our experience, we found that a large number of patients declined to see male medical students; this was the only possible way to assess the patient's views on the presence of male medical students in breast clinics.

This audit demonstrates the relatively low perceived acceptance of male medical students compared to female medical students in the breast clinic. This may have potential implications in terms of male education of the essential skills learnt in this clinical environment, highlighting a need for more innovative teaching techniques. With regards to the current literature, other teaching techniques that could be implemented and have proven to be effective include the use of standardized patients [21,22], the use of a focused breast skills workshop [23] and the use of role play to simulate the skills involved in patient communication such as breaking bad news [24,25]. A survey of third- and fourth-year medical students about their experiences performing gender-specific examinations demonstrated that fourth-year female students performed significantly more pelvic ($p < 0.01$) and breast examinations ($p < 0.01$) than did fourth-year male students. The authors did not explore whether patient discomfort was a cause of this difference. Recognizing that student gender was a marker for suboptimal exposure for performing opposite-sex, gender-specific examinations, authors suggested that special efforts should be made to eliminate gender disparity in opportunities to perform gender-specific exams [26].

This study also highlights the impact a doctor being present in the room has on patient comfort, perhaps illustrating a need for more supervision where the intimate examination and questioning is involved and a need for further research into this area.

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