



Original Article

Navigating Patient Comfort: Gendered Perspectives on Medical Student Involvement in Healthcare Interactions in Peshawar, Pakistan

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ABSTRACT

Patient interactions are fundamental to medical education, influencing the training of medical students and shaping their clinical understanding. **Objective:** To probe patient perspectives on the presence of medical students during consultations, clinical examinations and surgical procedures, with a focus on identifying gender-based differences in preferences and comfort levels. **Methodology:** This cross-sectional study was conducted in tertiary care hospitals in Peshawar involving 500 patients from Northwest General Hospital and Research Center and Northwest Teaching Hospital, data collected through a self-structured questionnaire revealed distinct gender disparities. **Results:** Male participants generally exhibited higher approval and comfort levels with medical student involvement, particularly during consultations, examinations, and surgery. Variations were evident in preferences related to medical history taking, comfort during physical examinations, and willingness to permit students in the operating room. Patients underscored the importance of recognizing gender preferences in medical student interactions. **Conclusions:** This study emphasized the significance of tailoring medical education practices to address gender-specific variations, ensuring a patient-centered approach and fostering positive healthcare experiences for all.

INTRODUCTION

Patients are the foundation of medical students' bedside education anywhere in any part of the globe [1]. Medical students' education still depends heavily on their interactions with patients. Patients' encounters can help advance clinical and contextual learning, enhance professional communication and skills, and start the process of building a future doctor-patient relationship. At most stages of patient care, students have greater teaching possibilities when patients are cooperative and eager to contribute to their education and training [2]. Researchers in medical education proposed that four

aspects influence bedside teaching: patients, clinical supervisors, medical students, and teaching curriculum [3]. Patients actively choose the care they receive; thus, it becomes challenging to teach pupils if they choose not to participate. Patients now have the option of whether they want the presence of students during their consultations due to the growing emphasis on patient rights and informed consent [2]. Gone are the days when physicians and medical students treated patients as they had a divine right to do so, due to increasing understanding of patients of their rights and the need of informed consent [4].

Research has been done to find out how patients feel about medical students being involved in their treatment. Many hospitals throughout the world have observed that a small percentage of patients reject or have unfavorable feelings towards the presence of medical students in treatment [5, 6]. Nonetheless, patients from different specializations were shown to have varying degrees of comfort with medical students. For instance, patients in urology reported feeling more at ease around male students, but patients in obstetrics and gynecology felt more at ease around female students [7]. Preserving confidentiality appears to be the most crucial element of the patient-physician interaction. A considerable percentage of patients are not very cooperative in real life when it comes to medical students. At most patient care levels, however, students would have superior learning chances via enhanced patient partnerships. Establishing a positive patient-medical student connection required prior knowledge regarding medical students' engagement in patient care. Patients would prefer that medical students only visit them during specific hours and that their involvement be contingent upon their approval [8]. Understanding patients' views on interactions with medical students is crucial for meeting their needs and improving the quality of care.

Current study, the first of its kind in Peshawar provided valuable insights into this area. Additionally, the research generated evidence-based information that can be used to enhance the training of future physicians, equipping them with stronger medical, clinical, communication, and behavioral skills. This study sought to understand the overall views of patients in tertiary care hospitals in Peshawar, Pakistan, regarding the presence of medical students during clinical examinations, surgical procedures and consultations with their doctors.

This research was conducted to check differences between male and female footballer composite scores and FMS as an injury predictor tool.

METHODOLOGY

The research employed a cross-sectional study design conducted over a period spanning from October 2022 to December 2022. The target population comprised patients visiting two prominent healthcare institutions, namely the Northwest General Hospital and Research Center, and the Northwest Teaching Hospital, both situated in Peshawar, Pakistan. Non-probability convenient sampling was utilized, and the sample size was determined using the OpenEpi sample size calculator, aligning with the 2022 census data of Peshawar population. Calculated at 471 participants with a 50% prevalence frequency and a 97% confidence interval, data were collected from a slightly

larger sample of 500 individuals to account for any potential incomplete questionnaires post-collection. Inclusion criteria mandated participants' willingness and provision of informed consent, while exclusion criteria encompassed non-participation, lack of informed consent, and incomplete questionnaire submission. The study design received ethical approval from the Institutional Review Board and Ethics Committee at Northwest School of Medicine (IRB & EC/ 2022 - SM/ 053) (Issuance Date: 8th August, 2022). Verbal informed consent was obtained from each participant, coupled with a comprehensive briefing on the study's purpose. Data collection employed a self-structured questionnaire with two parts: the first focused on demographic information, while the second contained questions pertinent to the research topic. Data analysis, performed using SPSS version 23.0, encompassed descriptive statistics, with the chi-square test (at an alpha level of 0.05) utilized to ascertain relationships between variables.

RESULTS

There were 316 male participants, comprising 63.2% of the total, and 184 female participants, making up 36.8%. The predominant age group among participants is above 18 years, accounting for 88.8%, while those below 18 years constitute only 2.4%, and 8.8% are precisely 18 years old. In terms of marital status, 67.2% of participants are married, while 32.8% are unmarried. The educational background of the majority of participants is 88.6%, with only 11.4% being uneducated. Regarding residential areas, 67.4% of participants live in urban areas, and 32.6% reside in rural areas. In the hospital wards, the majority of patients, 63.0%, are in the Medicine and Allied ward, with 37.0% in the Surgery and Allied ward (Table 1).

Table 1: Gender, Age, Marital status, Education level, Residence and Ward wise distribution of patients

Demographic Variables	Frequency (%)	Percent (%)
Gender		
Male	316	63.2
Female	184	36.8
Total	500	100.0
Age of the participants		
Below 18 Years	12	2.4
18 Years	44	8.8
Above 18 Years	444	88.8
Total	500	100.0
Marital Status		
Married	336	67.2
Unmarried	164	32.8
Total	500	100.0

Education Level		
Uneducated	57	11.4
Educated	443	88.6
Total	500	100.0
Residence		
Rural	163	32.6
Urban	337	67.4
Total	500	100.0
Wards Wise Patient Distribution		
Medicine and Allied	315	63.0
Surgery and Allied	185	37.0
Total	500	100.0

Table 2 shows patient perspectives on the involvement of medical students in their care, providing insights into their attitudes, preferences, and comfort levels regarding student presence during consultations and examinations.

Table 2: Patient perspectives on medical student involvement in healthcare

Variable	Yes	No	Doesn't matter	X ² Value	p - Value
Do you feel that medical students should be involved in consultations?					
Male	227	48	41	31.011	0.000
Female	93	67	24		
Is it important to you to be aware of the presence of medical students during your clinical encounters?					
Male	186	55	75	2.154	0.341
Female	106	41	37		
Do you authorize medical students to gather information about your medical history and personal details?					
Male	175	52	89	36.256	0.000
Female	72	75	37		
Are you open to having students present during your physical examinations?					
Male	114	77	125	47.883	0.000
Female	35	101	48		
Is your willingness to include a medical student in the clinical assessment influenced by the specific region of your body being examined?					
Male	188	39	89	8.873	0.012
Female	101	41	42		
Are you comfortable with clinical staff and medical students discussing your clinical case in your presence?					
Male	151	41	124	30.717	0.000
Female	70	62	52		
Do you have a preference for the student's gender to be the same as yours?					
Male	100	119	97	62.662	0.000
Female	125	28	31		
Does general appearance and manner of a student affect your co-operation with them?					
Male	179	33	104	2.461	0.292
Female	111	24	49		
Does the overall appearance and demeanor of a student impact your willingness to cooperate with them?					

Male	169	45	102	4.494	0.106
Female	112	29	43		
Do you authorize medical students to be in the operating room if you undergo surgery?					
Male	146	46	124	45.109	0.000
Female	59	76	49		
Is it significant for medical students to attend consultations as part of their medical education?					
Male	226	21	69	7.854	0.020
Female	118	26	40		
Is it essential for medical students to perform examinations as a component of their medical training?					
Male	218	19	79	6.888	0.032
Female	113	23	48		
Do you feel at ease with the presence of medical students during your medical consultation?					
Male	157	27	131	27.273	0.000
Female	65	46	73		

Table 3 and 4 display the factors that contribute to patients' comfort or discomfort regarding the participation of medical students in their healthcare. For patients who are comfortable with medical students' involvement, the most common reason was that they feel they are being taken better care of (183). While for patients who are uncomfortable with medical students' involvement, the most common reason was that they are concerned about their privacy(200).

Table 3: Reasons for being comfortable with medical students' involvement

Variable	My needs are more understood	More being taken care of	More time to discuss my case	X ² Value	p - Value
Male	101	112	103	3.204	0.201
Female	45	71	68		

Table 4: Reasons for being un-comfortable with medical students' involvement

Variable	Doesn't have experience	Privacy Concerns	Fatigue	Gender of medical student	Language Spoken	Un-professional behaviours	X ² Value	p - Value
Male	67	105	27	21	24	72	37.730	0.000
Female	26	95	11	28	8	16		

DISCUSSION

The demographic composition of our study sample, consisting of 500 participants, reflects a balanced distribution of genders. Among the participants, 316 were male (63.2%), while 184 were female (36.8%). Notably, the majority of individuals were above 18 years old, accounting for 88.8% of the total, with those below 18 years constituting only 2.4% and precisely 18 years old making up 8.8%. Regarding marital status, 67.2% of participants reported being married. In contrast, a study conducted in

Uganda showed a different demographic profile. In that study, the majority of participants were female, comprising 81.4% of the total, and 66.6% reported being married [9]. This variation emphasizes the influence of cultural and geographical factors on demographic patterns in research outcomes. Likewise, a study conducted in Canada with 625 patients across diverse medical specialties revealed an average age of 39 years, with 62% of the patients being female [10]. In this research, concerning the acceptance of medical students' presence during consultations, a majority of participants from both male and female groups expressed their approval. More precisely, 72% of males (227 individuals) and 51% of females (93 individuals) indicated their support for the inclusion of medical students in their consultations. This favorable response is consistent with studies conducted in Ethiopia, where 69.2% to 77.4% of participants accepted the involvement of medical students in their healthcare [11, 12]. Similarly, a Saudi Arabian study that included patients from a variety of medical specialties revealed a generally favorable opinion regarding the involvement of medical students in their treatment. The study found that only 11% to 43% of applicants were turned down [13]. The medical students themselves saw their involvement in patient care as an invaluable educational opportunity [14]. Hartz et al., found that patients' decisions about whether or not to have medical students assist them were not substantially influenced by their total educational attainment. Nonetheless, they pointed out that patients' acceptance and comfort levels were influenced by their educational background, especially when it came to private examinations like pelvic exams and Pap smears on female patients [15]. During medical training, interactions between patients and medical students play a vital and irreplaceable role in the development of clinical skills, effective communication between patients and physicians, and the cultivation of ethical skills crucial for future medical practices. In this study, when queried about the importance of medical students' presence during consultations and examinations for their education, 72% of male respondents considered it crucial, 7% found it unimportant, and 22% were indifferent. Among female participants, 64% regarded it as crucial, 14% deemed it unimportant, and 22% were indifferent. In alignment with findings from other studies, patients expressed their acceptance of medical students participating in their care, citing reasons such as a desire to contribute to students' learning and the future development of doctors. Patients also valued the companionship provided by students and recognized the substantial knowledge they gained about their health conditions through interactions with medical students, who often devoted significant time to patient

education [10, 15-19]. In Australia, comparable results were documented, with 96% of patients recognizing the significance of students' participation in their care as an integral aspect of their training [20]. In the present study, attitudes towards allowing medical students in the operating room during surgical procedures varied. Among males, 46% expressed willingness, 15% were unwilling, and 39% remained indifferent. In contrast, among females, 32% expressed willingness, 41% were unwilling, and 27% were indifferent. Comparably, medical students accepted non-invasive tasks like reading through patient records, watching doctors perform ward rounds, and interviewing patients about their medical histories more readily than they did more personal procedures like digital rectal exams, vaginal deliveries and episiotomy repairs, and pelvic exams [11, 13]. The study assessed the current level of comfort that patients experienced with the presence of medical students during consultations. Among male participants, 50% reported higher comfort levels, 9% expressed discomfort, and 41% were indifferent. Among females, 35% reported higher comfort levels, 25% expressed discomfort, and 40% were indifferent. On the other hand, a Ugandan study revealed that 82.3 percent of participants felt at ease with medical students being involved in their treatment. Concerns regarding extended consultation times while medical students are present were not common, and they did not believe that their presence would have a detrimental effect on the standard of care.9 Similarly, studies carried out in Tunisia revealed that male patients, those over 40, and those in employment were more accepting and at ease with medical students providing care than were female patients, those under 40, and patients without jobs.11 According to a different Australian study, patients (n = 255) under 40 were significantly more likely to report being satisfied with the involvement of medical students in their care [20].

CONCLUSIONS

Our study found that there are significant differences in how men and women feel about having medical students involved in their healthcare. Men are generally more comfortable with medical students being present during consultations, examinations, and surgery. They are also more likely to let students take their medical history and believe that medical students are beneficial for medical education. Women are more likely to be uncomfortable with medical students being involved in their healthcare, especially during physical examinations and surgery. They also prefer to have medical students of the same gender and prioritize privacy concerns.

Authors Contribution

Conceptualization: SZ

Methodology: SZ, KK

Formal analysis: SZ, KK, SJ, SM, SH, ZSK, ZAK, IB

Writing-review and editing: SZ, KK, SJ, SM, SH, ZSK, ZAK, IB

All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

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