ORIGINAL ARTICLE

Patients' Attitude towards Medical Students in a Teaching Hospital of Pakistan

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ABSTRACT

Objective: To study patient's attitude towards medical students on clinical clerkship rotation in a hospital
Study Design: Descriptive Cross Sectional Study.
Place and Duration of Study: Medical, Surgery and Gynae/Obs Departments of Pakistan Railway Teaching Hospital, Rawalpindi from March 30, to May 30, 2013.
Materials and Methods: Two hundred and seventy five patients were included in the study through non probability purposive convenient sampling. A questionnaire was prepared to interview the patients participating in the study. Data collected was entered into Statistical Package for Social Sciences (SPSS Version 17). Descriptive statistics were applied for all the variables to present the frequencies and percentages.
Results: For history taking, a larger preference was shown by the patients to the students' involvement irrespective of the gender; 55% patients recommended the presence of both male and female students, 50% patients were willing to allow medical students of either gender to take their medical history in the doctor's presence and 43% patients were willing to permit without a doctor's supervision. For medical examination by the medical students, patients were more inclined to the presence of a doctor but much more patients became gender conscious. 36% preferred the presence of both male and female students, 31% patients were willing to allow medical students of either gender in the doctor's presence and only 22% to permit medical students to carry out their examination without a doctor's supervision. Patients' preference to students' involvement while a medical procedure is carried out on them, in general, around 50% of the patients were reluctant; 48% patients would not allow medical students to be present as observers, 57% were reluctant to allow the students to carry out a procedure on them in the presence of a doctor and 68% patients were unwilling to let medical students to carry out a procedure on them in the absence of doctors.
For gender conscious patients, a significantly larger preference was shown towards female students over male in all the three situations.
Conclusion: It is concluded that the attitude of patients' towards the involvement of medical students in their clinical health care is related to the extent of students' involvement, the presence of a doctor(s) and the gender of the students and the patients.

Key Words: *Attitude, Students, Clinical clerkship rotation, History taking, Medical examination.*

Introduction

Clinical education of medical students is a vital part of their medical training. Therefore, it is essential for them to undergo bedside teaching and experience handling of patients, be it first hand or through witnessing the doctors' demonstrations. Such a teaching is done by enabling the students to undergo clinical rotations in the hospitals. These rotations provide a context-based learning environment that enables medical students to obtain not only optimum clinical skills but also the fundamental, decision making power, crisis handling techniques, communication skills and ability to overcome socio-ethical challenges. All these characteristics are essential to establish the foundations of a functioning patient-doctor comradeship, thus, further highlighting the vitality of clinical teaching.[1,2,3] However, cooperation and accommodating behavior of the patients is as imperative to this relationship as the teaching itself. It is often observed that when large numbers of students visit the patients frequently, the patients may feel that their privacy is being compromised. This may lead to the patients' resentment, hence arising non cooperative attitudes from them. Such a situation can badly hinder the medical students' bedside teaching.[4] Moreover, since the patients are becoming increasingly aware of their basic rights, in case they do not approve the involvement of medical students, they may exercise their freedom to object to the presence of medical students altogether, be it during history taking, examination or procedure demonstrations on them by the students themselves or by the doctors. Such situation leads us to the ever present dilemma of

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choosing between the patients` rightful comfort and optimum clinical training of medical students.[5]

An early study conducted in 1974 concluded two fifth of the patients as unwilling "to discuss their personal and family problems in the presence of medical students."[6] However, with the passage of time, a decline was observed in the patients' reservation to medical students because, according to subsequent studies, the patients developed a cooperative behavior towards the students. They were also keen on contributing their part in the clinical education of medical students by willingly participating as 'study subjects'. According to the aforementioned studies, this accommodating response of the patients is due to their acceptance and open mindedness to the fact that the students' clinical education was greatly dependant on their encounter with patients in teaching hospitals.[7,8,9,10] A similar observation was obtained from conducting such studies in the Middle East. In spite of the conservative religious, cultural and social atmosphere in Arab, the patients were greatly willing to allow the presence and participation of students in their medical care.[11,12,13] However, till now, no such study has been conducted in our part of the world to assess the patients' perception and understanding of medical students, hence, our study being the first one.

The following study was designed with the objective to study the patients' attitude towards medical students who come for clinical clerkship rotation. The obtained results will assist us to formulate guidelines and protocols for the interaction of medical students with the patients and the development and implementation of undergraduate curriculum with prime clinical training components while also upholding patients' rights and requirements.

Materials and Methods

A descriptive, cross-sectional quantitative study was carried out over a period of three months from March 01 to May 30, 2013 in Pakistan Railway Teaching Hospital, Rawalpindi, where 5th Year MBBS students of Islamic International Medical College attend clinical clerkship rotation at different departments. Two hundred and seventy five patients were included in the study. Non-probability convenient sampling technique was adapted for the collection of data to include the indoor as well as outdoor patients of Medical, Surgical and Gynae/Obs Departments of Pakistan Railway Teaching Hospital. Patients from the Pediatric Department were not included due to the high probability of biased answers since most of the parents would interview on behalf of the child patients, who would, more often than not, have a negative reaction towards students' involvement in their child's treatment.

Data Collection Procedure

A questionnaire was prepared in English for the purpose of collecting the data. Later on it was translated into Urdu. It comprised of 15 questions, the subject matter of which was divided between the patients' socio-demographic details and the patients' response towards the involvement of medical students in three different situations; medical history taking, examination and carrying out procedure(s) on the patients. Three different scenarios were highlighted for each of these situations, students involved as observer, actively participating in the presence and absence of doctors. Gender preferences by the patients were also taken under consideration. The questioner was piloted for its reliability and validity by getting the response of 15 patients.

The purpose of the study was explained to the patients and those not willing to participate were not required to do so. For assurance purposes each willing patient was asked to document their agreement to participate in the study. Medical officers and post graduate trainees were assigned the responsibility of getting the questionnaires filled from the patients in their respective departments. They were thoroughly explained the objective of this research beforehand and were instructed to explain the purpose of this research in detail to the patients as well, answering any queries, questions or reservations that the patients had before starting the interview. The research protocol was submitted to the Institutional Review Committee of Islamic International Medical College, Riphah International University, Islamabad, for its approval.

The collected data was entered into Statistical Package for Social Sciences (SPSS version 17.0).Descriptive statistics were applied to all the variables to quantitatively represent the obtained results in the form of frequencies as well as

percentages of the total sample space.

Results

Table-I summarizes the socio-demographic characteristics of the patients partaking in the study. It reached a total of 275 five patients, out of which 36% were from the Gynae /Obs, 36% from the Surgery Department and 28% belonged to the Medical Department. The average age of a questioned patient was calculated to be 39.78 years, with a range of 13 to 87 years. Seventy percent patients constituted females while only 30% were males. According to the patients' literacy data obtained, 31% of them were completely uneducated, 52% had studied up to 10th grade, only 12% possessed a graduate degree and none of them had a postgraduate level of education. Marital status findings showed that majority of them were married or widow (80%), and only 20% were unmarried. According to the employment status information, most of the patients, that is, 71% were unemployed or, in case of females, house wives. Most of the patients belonged to poor socioeconomic class with monthly income of less than 20000 PKR/month.

The patients' response to medical student involvement was divided into three situations; medical history, examination and carrying out procedure(s) on the patients. Three different scenarios were highlighted for each of these situations, students involved as observer when the doctors are active, students also actively participating in the presence of doctors and finally, students actively participating in the absence of doctors. Gender preferences by the patients were also taken under consideration.

According to the results collected for the patients' preferences to student's involvement during history taking, in general, an over 50% acceptance was observed. A larger preference although by a small margin was shown to the students' involvement during the presence of doctors, irrespective of the gender. When asked whether they were willing to allow medical students to be present as observers while the doctor takes their medical history, 55% patients recommended the presence of both male and female students, while 50% patients were willing to allow medical students of either gender to take their medical history in the doctor's presence. On the other hand, 43% patients were willing to permit medical students to take their medical history without a doctor's supervision. For gender conscious female patients, a significantly larger preference was shown towards female students over male with a preference ratio of roughly fourteen female over one male student. Patients' acceptance to the presence of students as mere observes for either male students or female students only, were 3% and 34% respectively. Only 2% of the patients were willing to allow only male students to take their history in the presence of a doctor while 32% allowed only female students. Only 1% patients would allow male students to take their history without a doctor's supervision while 26% patients would allow female students. (Table II)

Similarly, according to the results collected for the patients' preferences to students' involvement during the patient's examination in the hospital, in general, an over 50% acceptance was observed. Again, the patients were more inclined towards the students' involvement during the presence of a doctor. When asked whether they were willing to allow medical students to be present as observers while the doctor carries out the examination, 36% patients preferred the presence of both male and female students. Thirty one percent patients were willing to allow medical students of either gender to examine them in the doctor's presence. On the other hand, only 22% patients were willing to permit medical students to carry out their examination without a doctor's supervision. For gender conscious patients, a significantly larger preference was shown towards female students over male with a preference ratio of roughly forty females over one male student, a much larger difference than the one observed for history taking. Patients' acceptance to the presence of students as mere observes for either male students or female students only, were 3% and 48% respectively. Only 1% of the patients were willing to allow only male students to examine them in the presence of a doctor while 43% allowed only female students. Only 1% patients would allow male students to examine them without a doctor's supervision while 40% patients would allow female students. Another interesting point to be observed for these results is the fact that during examination, much more patients become gender conscious. While the general acceptability of patients to

medical students' involvement, irrespective of the gender, revolves around 30%, overall 40% patients prefer the students to be exclusively females. (Table III). On the other hand, according to the results collected for the patients' preferences to students' involvement while a medical procedure is carried out on them, in general, around 50% of the patients were reluctant. Forty eight percent patients would not allow medical students to be present as observers while a doctor carries out a medical procedure on them. Fifty seven percent were reluctant to allow the students to carry out a procedure on them in the presence of a doctor. Sixty eight percent patients were unwilling to let medical students to carry out a procedure on them in the absence of doctors. For the patients acceptable to the involvement of medical students, once again, a preference was shown to the presence of a doctor. When asked whether they were willing to allow medical students to be present as observers while the doctor carries out the procedure, 28% patients preferred the presence of both male and female students. Twenty three percent patients were willing to allow medical students of either gender to carry out a procedure on them in the doctor's presence. On the other hand, only 18% patients were willing to permit medical students to carry out the procedure without a doctor's supervision. For gender conscious patients, again, a significantly larger preference was shown towards female students over male. Patients' acceptance to the presence of students as mere observes for either male students or female students only, were 1% and 24% respectively. Only 1% of the patients were willing to allow only male students to carry out a procedure on them in the presence of a doctor while 19% allowed only female students. Only 1% patients would allow male students to handle the procedure without a doctor's supervision while 13% patients would allow female students. (Table IV)

Discussion

In our study an interesting variance was observed in the patients' preferences towards student involvement in clinical health care for different situations and scenarios.

For the patients' preferences to students' involvement during history taking, more willing responses than unwilling could be due to the fact that history taking is a verbal business, with minimum to none physical aspect involved. Some internationally conducted studies and the study conducted by Sayed-Hasan RM et. al., also deducted a similar conclusion, with “minimal direct contact” being a key cause of high acceptability.[4,14,15] A larger preference however, although by a narrow margin, was shown towards the students' involvement during the presence of doctors. This may be due to the patient's perspective of medical students as to lacking in professionalism or experience to alone perform the task. Some may even feel that the entire situation is altogether irrelevant since the student will not be the one treating them, hence the need of the doctor's presence. Lastly, the reluctance may have formed on the basis of the patient's concern that the student might not take them seriously or perform the task with as vigilance and required accuracy as needed, unless they do so in the presence of their clinical instructors—the doctors. Similar reasoning was deducted by other studies.[4, 14, 15,16]

For the patients unwilling to allow the involvement of medical students in even in the presence of the doctors, may feel so due to the relation of their problem to some sensitive or personal aspects, especially the patients with problems regarding

Table I: Demographic Data of Patients Interviewed in Different Departments of Hospital (N=275)

Characteristic	Frequency	Percent
Ward		
Gyna/Obse	99	36
Medicine	78	28
Surgery	98	36
Age(Years)		
Mean Age	39.78	-
Range	13 - 87	-
Gender		
Male	85	30
Female	190	70
Education level		
Un-educated	84	31
Primary/Middle	102	37
Matriculate	56	20
Graduate	33	12
Post graduate	Nil	00
Marital Status		
Married	203	74
Unmarried	56	20
Widow	16	06
Monthly income in PKR		
<10,000	117	42
10,000 _ 20,000	139	51
>30,000	19	07
Employed/Business	82	29
Unemployed/House wife	195	71

Table II: Patients` response towards medical students during medical history taking (N= 275)

Question No.1: Are you willing to allow medical students to be present while doctor takes your medical history?		
Patients` Response	**Frequency**	**Percentage**
Male Students Only	8(3%)	3
Female Students Only	94(34%)	34
Both Male & Female Students	151(55%)	55
Neither male nor female students	22(8%)	8
Question No. 2: Are you willing to permit medical students to take your medical history in the presence of doctor?		
Male Students Only	6(2%)	2
Female Students Only	88(32%)	32
Both Male & Female Students	137(50%)	50
Neither male nor female students	44(16%)	16
Question No. 3: Are you willing to permit medical students to take your medical history in the absence of doctor?		
Male Students Only	3(1%)	1
Female Students Only	72(26%)	26
Both Male & Female Students	118(43%)	43
Neither male nor female students	82(30%)	30

Table III: Patients` response towards medical students during examination in the ward (N= 275)

Question No. 1: Are you willing to allow the medical students while the doctor examines you?		
Patients` response	**Frequency**	**Percent**
Male Students Only	9(3%)	3
Female Students Only	131(48%)	48
Both Male & Female Students	99(36%)	36
Neither male nor female students	36(13%)	13
Question No. 2: Are you willing to allow medical students to examine you in the presence of doctor? (N= 275)		
Male Students Only	4(1%)	1
Female Students Only	119(43%)	43
Both Male & Female Students	85(31%)	31
Neither Male nor Female Students	67(24%)	24
Question No. 3: Are you willing to allow medical students to examine you in the absence of doctor? (N= 275)		
Male Students Only	3(1%)	1
Female Students Only	109(40%)	40
Both Male & Female Students	60(22%)	22
Neither male nor female students	103(37%)	37

Table IV: Patients` response towards medical students during medical procedure carried out on them in the ward (N= 275)

Question No. 1: Are you willing to allow medical students to be present while doctor carries out any procedure on you?		
Student`s Response	**Frequency**	**Percent**
Male Students Only	2(1%)	1
Female Students Only	66(24%)	24
Both Male & Female Students	77(28%)	28
Neither male nor female students	130(48%)	47
Question No.2: Are you willing to allow medical students to carry out any procedure on you in the presence of doctor?		
Male Students Only	2(1%)	1
Female Students Only	52(19%)	19
Both Male & Female Students	63(23%)	23
Neither male nor female students	158(57%)	57
Question No.3: Are you willing to allow medical students to carry out any procedure on you in the absence of doctor?		
Male Students Only	2(1%)	1
Female Students Only	36(13%)	13
Both Male & Female Students	50(18%)	18
Neither male nor female students	187(68%)	68

Obs/Gynae, hence making them uncomfortable to reveal their history in front of the students.[17]

Similarly, patients' preferences to students' involvement during the patient's examination in the hospital again a significantly larger acceptance was shown, although comparatively lesser than that observed for history taking. This may be due to the fact that now a physical aspect has been involved, and the patients may be concerned about the students' lack of experience as potentially harmful to them.[18] Additionally, it could also be due to their hesitance to allow physical contact with non-professional.[18] Again, the patients were more inclined towards the students' involvement during the presence of a doctor. This may be due to the fact that there may be less chances of damage or harm done by the students'—if they carry out the examination—while under proper experienced supervision. Again, for the patients unwilling to allow the students' involvement either as observers, or as the examiner even in the presence of doctors may be due to the discomfort and privacy issue, although this time the concern is not only verbal exposure, but also visual. This may also include the students' contact with the patient's body, which many, especially patients with examination of the sensitive regions of the body, may be uncomfortable with. Moreover, the patients may feel the lack of experience of the students as a sign of their incompetency as examiners, hence decreasing chances of the students carrying of a secure or successful examination of what the patient's problem may be. These findings are consistent with some previous studies.[18,19,20]

On the other hand, patients' preferences to students' involvement while a medical procedure is carried out on them, a significantly large reluctance was observed. This reaction is slightly expected since the patients would want the most experienced and immensely trained professional as the one carrying out the procedure or them. Therefore the patients may feel that the students' involvement while a procedure is carried out on them may not only hinder the proper execution of the procedure, but may also disrupt the desired goal of it.[18] They may also feel that the doctor may get more involved with the students' teaching than the procedure, which can prove to be

harmful for the patients comparable to the finding of Price et al .[15] Another interesting observation made through the result is that in all situations and scenarios, for gender conscious patients, female students are the popular choice. A similar finding was also observed in the study by Sayed Hassan et al.[4] It should be noted, that, as was mentioned in the demographic results, 70% of the patients consisted of females. Therefore, the females may not be comfortable with the presence of males as they may find it embarrassing to discuss their personal, especially sensitive and private medical problems with male patients. Moreover, they may be increasingly uncomfortable, hence reluctant to expose their private body parts in front of the male students if the examination or procedure requires them to do so. Moreover, as a Muslim country, it is socially, culturally and religious unacceptable to most woman to interact with males, especially in reference to visual exposure of body or physical contact, which the male students' involvement in examination or procedure may demand. Therefore, they highly prefer that the students that they come across be female. Moreover, majority of the patients were unemployed. This may also negatively affects the open mindedness of the patients, hence encouraging their hesitance towards medical students' involvement in their clinical care. The reasons of those patients who were acceptable to the involvement of the students regardless of the doctors' presence and irrespective of the involved students' genders should also be highlighted upon. This generous acceptability may be due to the open mindedness of the educated portion of the patients. They may be excited over the prospect of assisting the doctors in clinical training. They may also feel that if the doctor involves his/her students more time, thought and effort will be spent over their diagnosis and treatments, hence producing better outcome for them. Similar reasoning was drawn by Sayed-Hassan et al that highlighted the same reasons from other studies including "desire to contribute to medical education, the extra time spent with the patient, and the opportunity to learn more about their medical problem".[4,10-12,14,17]

Conclusion

The attitude of patients' towards the involvement of medical students in their clinical health care is related to the extent of students' involvement, the presence of a doctor(s) and the gender of the students and the patients. Some additional yet not as dominant reasons may be the socio economic background of the patients. The more practical the work, the more reluctant the patients' are to the students' involvement.

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