

ORIGINAL ARTICLE**PATIENTS' ATTITUDE TOWARDS MEDICAL STUDENTS INVOLVEMENT IN THEIR HEALTH CARE AT TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA, 2010**

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ABSTRACT

BACKGROUND: *Patients' willingness to the involvement of medical students in their health care is the mandatory input to medical education. Admitted patients' willingness level should be known and factors affecting willingness should be identified and it is necessary to act upon them for better medical care.*

METHODOLOGY: *A cross-sectional hospital based survey was conducted to assess the admitted patients' attitude towards medical students' involvement in their health care at Tikur Anbesa Specialized Hospital in 2010. Data were collected from 422 adult patients admitted in Tikur Anbesa Specialized Hospital from April to May 2010 using structured questionnaire and by interview method. The data gathered in this way were then processed using SPSS version 15.*

RESULT: *Three hundred and ninety-two participants had responded to all questions they were asked (response rate = 92.8%). One hundred and five (26.8%) patients had negative attitude to medical students' involvement in their health care. The proportion of patients' having positive attitude towards students was slightly reduced from medical to surgical and to gynecology wards 77.4%, 72.0%, 69.2% respectively. Patients who had previous interactions with students were more likely to have negative attitude (AOR (95% CI) = 1.72(1.03, 2.87). The odds patients admitted in gynecology and obstetrics ward to prefer female students to care for them was higher (AOR (95% CI) =1.93(1.13, 3.30).*

CONCLUSION: *Almost half of the patients admitted to Tikur Anbesa Specialized Hospital objected to clinical procedures on them even physical examination, hence developing clinical skills in TASH might be challenging for the majority of students. The challenge might be worsened for male students in gynecology wards.*

KEYWORDS: *Patients' attitude, Medical students, Medical Education, TASH*

INTRODUCTION

The most important function and aim of a university hospital is to educate medical students. As these students are the future health professionals, they should develop skill with direct participation in health care activities under the supervision of responsible professionals. The patients' willingness and comfort level in involving medical students in their care may be affected by their previous experiences with these

students, their understanding of the roles and responsibilities of students, the nature of their medical problem and the student's gender (1, 2).

Previous studies found out that patients generally accept medical students' involvement in their hospital and outpatient care. A study in Newcastle and London showed that 95% patients were happy with students to be present during an examination, but their consent depended on the clinical scenario they had. Another study in London Gynecology Clinic showed that the

women's attitude differed according to the sex of the student, with a preference for female students in all types of interaction (3, 4).

The study conducted in London STI Clinic found out that female patients were less likely than male patients to feel comfortable with a male student (5). On the other hand, a study in Israel showed that 15% would insist on advance notification of the presence of a student, and 33.6% would refuse to be examined by a student without a doctor's presence (6).

On the contrary, studies in Marlborough Hospital and Pennsylvania indicated that many patients had no preference regarding medical students' participation. The most common reasons for feeling uncomfortable with students were privacy concerns and poorer quality of care (7, 8). Studies in Saudi Arabia found out that the majority of the patients preferred the students with the physician and during physical examinations (56.9 % and 64% respectively). One of these studies indicated that 55% believed that they had the right to refuse students involvement (2, 9).

University hospitals in Ethiopia are crowded with their own students and many students coming from many other private and governmental medical universities and colleges. Tikur Anbessa Specialized hospital is a public referral, teaching hospital with more than 500 beds. Due to this status of the Hospital, students are being placed to this hospital. Medical students from domestic and overseas universities and colleges come to this hospital for professional practices.

A single patient in Tikur Anbessa specialized hospital may be forced to interact with many students who have different knowledge, skills, specialties and inquiry. This study aimed to assess admitted patients' attitude towards medical students' involvement in their health care at Tikur Anbessa Specialized hospital from April to May 2010.

SUBJECTS AND METHODS

This hospital based cross-sectional quantitative study was conducted from April to May 2010 in Tikur Anbessa Specialized hospital (TASH), Ethiopia; Addis Ababa. To determine the number of patients (study subjects) required for

the study, single population proportion formula was used with the assumptions of expected proportion of patients having negative attitude to medical students involvement in their health care is 50%, desired precision of 5%, 95% confidence level and 10% none -response rate are considered. With these assumptions a total of 422 adult patients admitted to TASH in medical, surgical and gynecology wards during the study period directly involved in this study. Samples were proportionally distributed to number of beds in each ward and available patients in each ward during the study period were involved (convenient sampling). Patients only aged above 18 years, stayed more than three days in the ward and whose health status allowed them to communicate were involved from the specified wards.

Data were collected via interview conducted by trained data collectors. Data collectors were nurse students. Data collectors were not in clinical practice at the time of data collection in data collection site. At the time of interview they did not wear gown or any indicator their status or profession. The tool (questionnaire) has been adopted from previous studies (2, 5, 10, 11). It was first prepared in English and then translated to Amharic and back to English. The tool was pre-tested with 10% of sample size (42 patients) at Princess Zewuditu Hospital. Interview was conducted as patients were on their bed and at the moment students were made to leave the room.

Data were processed using SPSS version 15. Associations between dependent and independent variables were assessed and presented using logistic regressions. P-values less than 0.05 were considered to be statistically significant in all cases of association analysis.

RESULTS

In this study, 422 voluntary patients admitted at TASH were interviewed. Among these patients, 392 responded to all questions they were asked. The mean age of the participants was 35 years. The mean and median hospital stays with current admission were 16 and 10 days respectively, the minimum being 3 days. Among all study participants, 227 (57.9%) were females. Two hundred and thirty (58.8%) of the participants

knew that the hospital (TASH) where they were admitted to that time was a teaching hospital. Two hundred and thirty-one (58.9%) of the participant patients had previous exposure with students in clinical practice.

Nearly half (48.5%) of the participants reported that they had the right to refuse the involvement of students in their health care. Two hundred and seventy-eight (70.9%) of the participants would not object to being physically examined at the presence of students. Majority

(78%) of the study participants responded that they would not refuse if students asked them questions but 45.2% would object to be examined by the students. Only 11.7% of the participants could discuss without a feeling of humiliation about their alcohol intake and extramarital sexual activities if students asked them. Among 392 study participants, (70.8%) would prefer students with their gender.

Table 1: Patients' Attitude towards Medical Students' Involvement in Health Care in TASH, Ethiopia, 2010 (N= 392).

Questions/Statements	Yes		No	
	Freq.	%	Freq.	%
Do you believe you have the right to refuse students involvement in your care?	190	48.5	202	51.1
Do you object to the presence of students during your physical examinations?	114	29.1	278	70.9
Do you object if the student only asks you questions?	89	33.7	303	77.3
Does general appearance and manner of a student affect your co-operation with them?	381	81.1	74	18.9
Do you object if the student examines you?	177	45.2	215	54.8
Do you prefer to be informed in advance that a medical student will be present during your clinical examination?	242	61.7	150	38.3
Do you prefer that the student be of your gender?	114	29.1	278	70.9
Do you feel difficulties in discussing your personnel history with student?	296	75.5	96	24.5
Do you feel embarrassed when doctor examines your genitalia in front of students?	115	29.3	277	70.7
Do you feel humiliated if you are asked questions about alcohol intake and extra marital sexual activities?	46	11.7	346	88.3
Do you cooperate with medical and nurse students as you cooperate with your physician and nurse?	282	71.9	110	28.1
Is your cooperation with medical and nurse students affected by your health status?	319	81.4	73	18.6
Do you feel uncomfortable if students come to you to care for you?	101	25.8	291	74.2

The proportion of patients' having positive attitude to medical students were vaguely reduced from medical to surgical and to gynecology wards, i.e. 77.4%, 72.0%, 69.2% respectively. A larger proportion of patients who were more educated had negative attitudes than less educated patients. Statistical significant

attitude difference was not seen in patients from any age group and residence. The majority of the patients in each ward had positive attitude towards medical students. One hundred and forty-four (36.73%) individuals of the total study participants had negative attitude from surgical ward followed by medical ward.

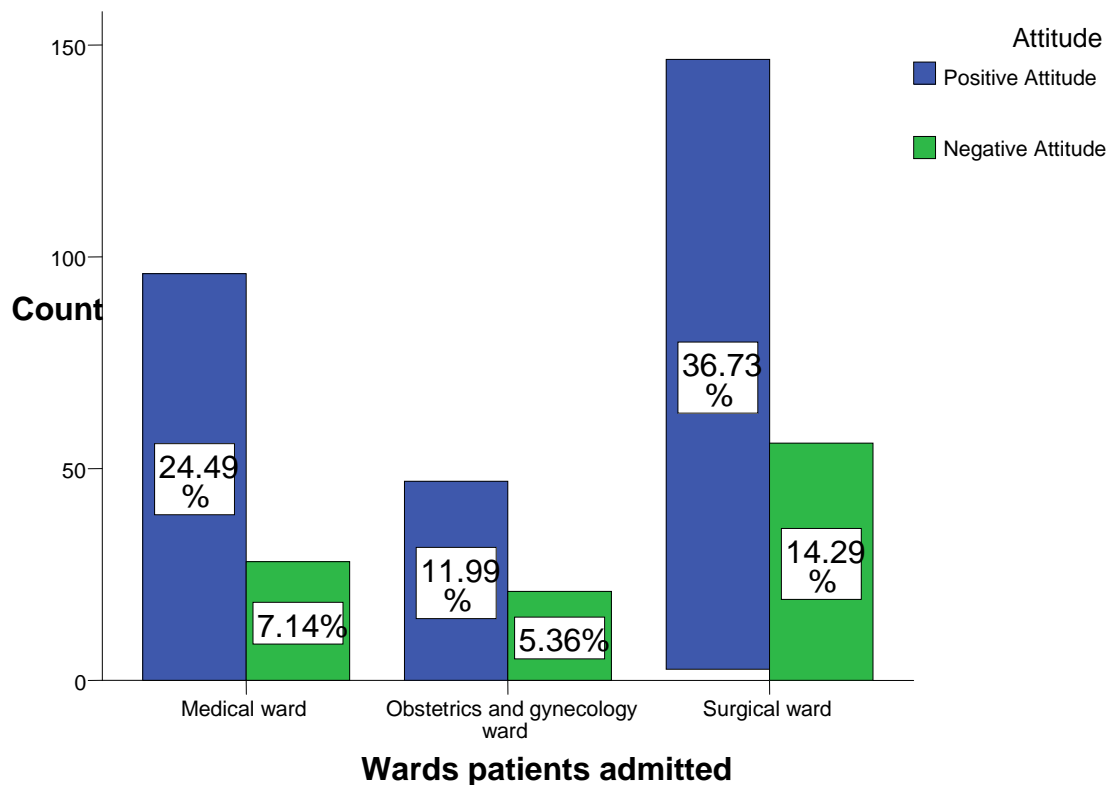


Figure 1: Patients' Attitude towards medical students involvement in three wards of TASH 2010 (N = 392)

Attitude differences were observed between patients who knew the hospital was a teaching hospital and who did not; among patients who knew the hospital was teaching, 68.8% had positive attitude as compared with 79.5% who did not know the hospital was a teaching one. Patients who had previous exposure to students were more likely to have negative attitude towards medical students' involvement in their health care; AOR (95% CI) =1.72(1.03, 2.87).

Nearly half (45.2%) of the participants reported that they had objection to being examined by students. Among those who knew the hospital was a teaching hospital, half reported that they were not willing to be physical examined by students, and 60% of the patients

who had previous interaction with students were found to show no resistance to physical examination by students.

Patients' preference for students' gender in gynecology ward were found to be higher than patients in other wards. Around 37% of the study participants in gynecology ward, 20.2% and 32.0% in medical and surgical wards respectively reported they would prefer students of their gender to care for them; (AOR (95% CI) of gynecology ward was 1.93(1.13, 3.30) when compared with medical ward. The odds of females to prefer female students appeared higher than that of males to prefer male students to care for them AOR (95% CI); 1.65(1.00, 2.71).

Table 2: Patients' Attitude to Health Science students cross tabbed with Patients Knowledge and previous interaction with students in TASH 2010 (N = 392).

Variables		Positive attitude to health science students					
		Yes		No		COR(95% CI)	AOR(95% CI)
		Frequency	%*	Frequency	%*		
Knew the hospital (TASH) was teaching hospital?	Yes	159	68.8	72	31.2	1.00	1.00
	No	128	79.5	33	20.5	1.75(1.09, 2.81)	1.35(0.78, 2.31)
Had previous exposure to students in clinical practice	Yes	105	65.2	56	34.8	1.00	1.00
	No	182	78.8	49	21.2	1.98(1.26, 3.11)	1.72(1.03, 2.87)*

*statistical significance observed

Table 3: Patients' gender preference for students to care for them in TASH, Ethiopia 2010 (N=392).

Variables		Do you prefer that students be of your gender?			
		Yes	No*	COR (95% CI)	AOR(95%CI)
		Freq. (%)	Freq.(%)		
Wards Patient Admitted	Medical	25(20.2)	99(79.8%)	1.00	1.00
	Gynecology	25(36.8)	43(63.2%)	1.86 (1.09, 3.16)	1.93(1.13, 3.30)**
Sex	Surgical	64(32.0)	136(68%)	0.80 (0.45, 1.43)	1.03(0.55,1.93)
	Male	38(23.0)	127(77%)	1.00	1.00
	Female	76(33.5)	151(66.5%)	1.68 (1.06, 2.65)	1.65(1.00, 2.71)**
Total		114(29.1)	288(70.9%)		

*Do not care whether male or female **association found

DISCUSSION

The majority (73.2%) of the patients admitted to TASH perceived medical students' involvement in their health care positively; this coincides with the studies done in Turkey and UK (13, 1). Though it was not statistically significant, it seems more educated patients were more likely to have a negative attitude to students in clinical attachment than less educated patients: 44.4% and 17.9% of patients with 1st degree and only read and write respectively.

Patients' previous interaction with medical students was found to be the determinant factor for their attitude towards medical students. This finding is inline the study done in Pennsylvania in 2007 (8). This might be because as patients

interact more with students, they can become bored and may observe more errors while students are practicing. This is an alarm for stakeholders working on human health. Medical practice is an issue of life and death; hence practitioners should be equipped with adequate knowledge and skills. Skill is acquired only through practice; real practice directly on patients. Real practice on real patients in TASH is facing objections from patients. If no measure is taken, the level of objection may become worst as the community interacts more with students.

More than three fourth of the study participants responded that they would not object if students asked them questions, but nearly half of participants reported that they would not be willing to be examined by students. The

investigators of this study share reason given from Marlborough hospital and Pennsylvania; most common reasons for objecting against students' involvement in physical examination were privacy concerns and poorer quality of care (7, 8). This could be one of the dangers of medical education in Ethiopia especially in referral and university hospitals.

A study in the UK found out that patients were gaining from learning about their conditions while students discussed about their problem with their teachers; personal satisfaction from helping students to learn and receiving "gifts" such as personal gratitude (14). However, medical educators and students in Ethiopia are discussing in English during bed-side teaching using lots of medical terms which is totally impossible or difficult to understand by most admitted patients. This may be the other cause for patients' resistance to students' involvement and one of the barriers to efforts directed producing skilled health professionals.

The majority of the patients in gynecology ward objected to physical examination by students as compared with patients in medical and surgical wards. The reason for the resistance of patients in surgical and gynecology wards to physical examination by students may be pain from the body parts being examined and need for privacy. The finding from Marlborough Hospital Sexual Health Clinic supports this assumption which found out that the reason for patients' objection to being by students was concern of privacy (7).

Patients admitted to gynecology ward were more likely to prefer female students to care for them. The finding of this study on gender preference is in line with the findings of a study done in London Gynecology Clinic (4). This implies that female students have more chance to be accepted in gynecology and obstetrics wards than male students.

More than a quarter of adult patients in Tikure Anbessa Specialized Hospital perceived negatively medical students' involvement in their health care. Patients who had previous interaction with students were found two times more likely to have negative attitude to medical students' involvement in their health care than those who had no previous interaction. As the majority of the community is constantly involved in

interactions with students, this is an alarm for the universities and colleges which are training medical students.

Almost half of the patients admitted to Tikur Anbessa Specialized Hospital had objection to clinical procedures on them even physical examination, involving practicing students. Therefore, developing clinical skills in TASH might be challenging for the majority of students. The challenge might be worsened for male students in obstetrics and gynecology wards.

Medical educators should thus closely monitor their students' especially male students practicing in gynecology and obstetrics wards since patients in this wards are more resistant to male students.

On the other hand, medical education stakeholders are advised to work on improving admitted patients' attitude towards the nature of medical education and significance of involving medical students in real patient care.

It is necessary that Universities and colleges training medical students consider other supportive options for clinical practice like expert patients, since patients are resisting students more as they interact more with students, and as coverage of medical education is increasing in the country, there is going to be more interaction and more resistance, too.

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