

Original Research Article

## **Patients' Attitudes to the Presence of Medical Students during Consultation in Primary Health Care in Bahrain**

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### **ABSTRACT**

**Aim:** This study was conducted to determine patients' attitudes to the presence of medical students during consultation in primary health care settings.

**Method:** A convenience sampling of 200 patients attending four health centres was selected from two regions; region one -Muharraq- and region four -the Capital. Patients completed a questionnaire in the waiting area.

**Results:** 67% of the participants were males, and the majority was Bahrainis. (45%) of the subjects obtained a university certificates or have higher degrees. Generally, the results demonstrate that patients are positive towards medical student presence and participation during consultations. 94.5% (n=189) of participants have willingness to medical student involvement during their consultation. Yet, 67.5% would disallow the presence of medical students if they have sexual problems and 63 % if they have internal examination like pap smears, piles. The non-teaching health clinic participants' rejection was more than teaching clinics. At least 64% of participants showed interest to know the gender of the medical student prior to students' presence and insisted for taking their permissions for a student's attendance.

**Conclusion:** This study shows that patients have positive attitudes to medical students' involvement in primary health care and felt that the students' involvement is a necessity for their training. Most patients agreed to allow students to read information and discuss their medical conditions with the trainer doctor, yet, they felt it is important to obtain their permission a head of time.

**Key Words:** Attitudes, Presence, Medical Students, Consultation, Primary Health Care, Bahrain.

### **INTRODUCTION**

The number of medical students has remarkably increased in Bahrain. In Addition to Arabian Gulf University (AGU), two new educational institutes that are teaching medicine - the Royal College of Surgeons in Ireland (RCSI) Medical University of Bahrain and, AMA International University- have begun sending their medical students to different health settings for practical clinical training including local health centres. Nevertheless, the influence of the above increase and the

presence of medical students during medical consultation have not been yet assessed in Bahrain from patients' prospective. Thus the current research team decided to study the later (the presence and the involvement of medical student during patient's consultation as seen by patients themselves).

Patients have always been part of medical education, but we can no longer assume that they will choose to participate in the training. <sup>[1]</sup> Regardless of their importance for years patients have played a relatively passive role as teaching

"materials". [2] The weight of the patient in medical education is widely acknowledged but it was clear from the literature review that the voice of patients as teachers and partners in medical education were relatively or partially studied. Only a few studies have explored patients' views on the teaching of medical students in general practice. [3]

Previous studies (from Australia, New Zealand and United Kingdom) indicated that patients are in general having positive attitudes about student participation in medical practice. [4] In United Kingdom researchers have found that a high percentage of patients are willing to have a medical student during general consultations, the study by Cooke and colleagues showed that only 3% of patients had a negative view about the presence of a student. [5] In previous study which focused on the role of ethnicity on patient willingness towards medical student, the results revealed that the majority of patients (92%) agreed to allow medical student during medical consultation. [5] The results of the study were in agreement with that previously obtained by Cooke (1996). [5]

Recent evidences from different studies show that this willingness, however, may be contingent upon the content of the consultation and the gender of the student. It also depends on the nature of the student's involvement, whether the patient is seeing the student on their own or with the GP, and the age and gender of the patient. Generally patients report positive outcomes from student involvement in the consultation but the presence of a medical student can alter the dynamics and content of a consultation. [6]

In Saudi Arabia most Saudi patients view medical students' involvement in their care positively. (81%) of respondents felt that students' general appearance and manner were important to their willingness to have them participating in their care. Yet patients prefer to be told in advance about students' presence, asked for their

permission, and have students' involvement restricted to certain times. [7]

## METHODS

This study conducted over a period of 2 months from July 2011 to August 2011. Four health centers (HCs) from two regions; region one -Muharraq- and region four -the Capital were chosen, two of which were teaching (have medical students) and two were non-teaching: Shaikh Salman and Jidhafs, teaching health centres while Isa town and Muharraq were non teaching. A convenience sample of fifty patients from each health centre was selected. The main reason for the above selection (teaching/non teaching) was to test any possible differences in patients' attitudes regarding the presence of a medical student during consultation.

For the research instrument the researchers adapted a questionnaire designed by Dr. Kevin Sweeney and his team as part of their study to find out how patients feel about having a medical student in a general medical practice namely during patients consultations. [6]

The questionnaire was self administered by the patients with research team available sometimes to answer patients' questions. Yet, this was not possible of all patients' inquiry, only few research participants were provided with clarifications. The questionnaire consisted of 22 statements evaluating patient's attitudes to the presence of a medical student in primary care consultation, patient's attitudes about the presence of medical students for different kind of complains ranging from sore throat to more sensitive consultations like internal examination and sexual problem. The questionnaire ended with questions related to patients' demographical information. The questionnaire has translated into Arabic language for Arabs participants and the English version to non-Arabs.

The questionnaire was distributed to 200 patients who were either waiting for scheduled outpatient visit or had already

finished outpatient consultation. The patients were approached at a set time during working days of the four months. Only patients above 18 years of age were selected to complete the research questionnaire. The collected data had been analyzed using SPSS (Statistical Package for the Social Sciences) version 18

## RESULTS

### Patients' characteristics

Out of the total sample, 67% were male participants (n=134) and Majority of the respondents (87.5%) were Bahrainis (n=175). More than two-third of the subjects were below the age of 40 (66%). Only 44 (22%) of the study subjects were unemployed, thus far, 63% were employed (n=126) and the rest either students or retired (Table 1). Approximately half of the subjects (45%) obtained a university degree or even have higher educational level. (table 1)

### Patients' Willingness to have a medical student present during consultation

Patients are willing to have medical student presence during their consultations but not for all sorts of health complaints. Only 11 patients (5.5) answered with "No" for allowing students into their medical consultations. If considering the responses of participants who answered with (Yes) including those who answered (Yes, but not any); we could say that the majority of participants 94.5% (n=189) has willingness to have student's presence. However, participants from the teaching health centers seem to be more approving for the presence of medical student than those participants in the non-teaching health centers (40%) to (28%) respectively, but, still the variation is not statistically significant. (Table 2)

Majority of the participants 92.5% (n=185) agreed for medical students to have some of their training in health centres either those in teaching health centres or non-teaching with no differences. Surprisingly (55%) of patients in teaching health centres hadn't meet a medical student during their consultations compared to

(51%) in non-teaching health centres. Yet, 88.5% (n=177) were willing to have a medical student present in their consultations if they were present at health center the day of the survey with no differences between teaching (HCs) and the non-teaching (HCs) health centers.

Most of the respondents (75%) (n=150) believed that their permission should be taken in regard to students' presence or involvement during consultation (Table 3).

### Presence of medical student in certain clinical situations

In Table (No. 4) a total of 154 (77%) did not object the presence of medical students when they consult their doctors for sore throat. However, the level of agreement declined to 57.5% in case of chest infection and even declined more to 42.5 for feeling depressed. The above trend of agreement however replaces with disagreement to allow students' presence during consultation for other medical cases; for example the participants showed negative attitudes to student presence in case of sexual problems 67.5% (n=135), and if they have internal examination like pap smears, piles 63 % disagreed.

### Patients' agreement to medical students based on clinical procedures

In general, participants had positive attitude towards involving medical students during consultation as well as participating in some clinical procedures. Table 5 shows that 79% of participants agreed for medical students to observe consultation, 80.5 % (n=161) are willing for students to discuss issues with the doctor in the consultation. On the other hand, a significant proportion (87%) of patients in this study responded with (Yes), for students participating in taking medical history, and 82.5% in discussing their cases with doctor, yet, after they leave the consultation. But the level of positivity seems to decline slightly when a medical student comes to perform some examinations. 76% of participants agreed to allow students examining them, and the same was true for the student performing a

procedure on them. At least 73% of study subjects believed its' proper for medical students to do so. (Table 5)

There was no significant difference between teaching and non-teaching health centers.

About half of the participants (51 %) stated that they want to know the purpose of the student presence during the medical consultation, while 61% (n=122) wants to know the year of medical student training, and 64% of the participants like to know the medical student's gender at the time of asking their permission for student's participation in the consultation. There was also no statistical difference between the teaching and the non teaching health centers (Table No. 6).

There was no significant difference between teaching and non-teaching health centers.

**Patients' view of their consultation when student is present**

Almost half of the participants 98 (49%) believed that the presence of a medical student made the consultation better, while 46.5% of participants felt that

the consultation was the same. Only 9 patients thought that the presence of medical student made the consultation worse. 56% of the participants considered the presence of a medical student made the consultation longer (Table no 7).

There was no significant difference between teaching and non-teaching health centers.

**Table 1: Demographic characteristic of the research participates**

		Teaching HC		Non Teaching HC	
		n	%	n	%
Age	<30	38	38%	34	34%
	30-39	33	33%	27	27%
	40-49	20	20%	16	16%
	>49	9	9%	23	23%
Sex	Male	60	60%	74	74%
	Female	40	40%	26	26%
Occupation	Un Employed	24	24%	20	20%
	Professional	32	32%	28	28%
	Non professional	30	30%	36	36%
	Retired	4	4%	12	12%
	Student	10	10%	4	4%
Nationality	Bahraini	87	87%	88	88%
	Non Bahraini	13	13%	12	12%
Education	Secondary or lower	52	52%	58	58%
	University or higher	48	48%	42	42%

**Table 2: Willingness to have a medical student present during consultation**

		Teaching HC		Non Teaching HC		Total		Chi-square P-value
		n	%	N	%	n	%	
In general, are you willing to have a medical student present during your consultation with your Doctor?	Yes for any consultation	40	40%	28	28%	68	34	0.091
	Yes but not for every consultation	57	57%	64	64%	121	60.5	
	No not for any consultation	3	3%	8	8%	11	5.5	

**Table 3: General attitudes of patients to the presence of medical student during the consultation at the primary health care**

		Teaching HC		Non Teaching HC		Total		Chi-square P-value
		n	%	n	%	n	%	
Do you think that it is a good idea for medical students to have some of their training in Health centres	No	6	6%	9	9%	15	7.5	0.421
	Yes	94	94%	91	91%	185	92.5	
Have you ever had a medical student present during a consultation?	No	59	59%	51	51%	110	55	0.256
	Yes	41	41%	49	49%	90	45	
If there was a medical student in the HC today, would you be willing to have him or her present during your consultation with your Doctor?	No	12	12%	11	11%	23	11.5	0.825
	Yes	88	88%	89	89%	177	88.5	
See medical student before seeing your doctor alone	No	69	69%	79	79%	148	74	0.107
	Yes	31	31%	21	21%	52	26	
See medical student after seeing your doctor alone	No	63	63%	76	76%	139	69.5	0.046
	Yes	37	37%	24	24%	61	30.5	
Do you think that you should be asked for your permission for a medical student to be present during your consultation?	No	27	27%	23	23%	50	25	0.514
	Yes	73	73%	77	77%	150	75	

**Concerns of participants regarding presence of medical students**

A total number of 151 patients (75.5%) were not concerned about the confidentiality of their illness information during consultation when a medical student is present. Hundred-forty six patients (73%) agreed for a medical student to discuss their consultation results with the doctor after

they have left the room and 66% found it appropriate for medical students to review their records. Yet, 70% of patients thought that this could only be done with their permissions (Table no. 8).

There was no significant difference between teaching and non-teaching health centers.

**Table 4: Agreement of participants to the presence of medical student in certain clinical situation during the consultation**

Would you agree to a student being present during the consultation if you have		Teaching HC		Non Teaching HC				Chi-square P-value
		n	%	n	%	n	%	
Sore throat	No	10	10%	11	11%	21	10.5	0.697
	Yes	75	75%	78	78%	153	76.5	
	Depends on the gender	15	15%	11	11%	26	13	
Chest infection	No	21	21%	25	25%	46	23	0.798
	Yes	59	59%	56	56%	115	57.5	
	Depends on the gender	20	20%	19	19%	39	19.5	
Feeling depressed	No	38	38%	47	47%	85	42.5	0.432
	Yes	52	52%	45	45%	97	48.5	
	Depends on the gender	10	10%	8	8%	18	9	
Internal examination (pap smear, hemorrhoids )	No	56	56%	70	70%	126	63	0.097
	Yes	17	17%	14	14%	31	15.5	
	Depends on the gender	27	27%	16	16%	43	21.5	
Sexual problem	No	63	63%	72	72%	135	67.5	0.299
	Yes	15	15%	14	14%	29	14.5	
	Depends on the gender	22	22%	14	14%	36	18	
Worrying results	No	34	34%	41	41%	75	37.5	0.391
	Yes	57	57%	54	54%	111	55.5	
	Depends on the gender	9	9%	5	5%	14	7	
Child to be seen by doctor	No	17	17%	23	23%	40	20	0.166 <sup>1</sup>
	Yes	78	78%	76	76%	154	77	
	Depends on the gender	5	5%	1	1%	6	3	

**Table 5: Feeling of the participants to the involvement of medical students during different stages of the consultation**

In general, would you be happy for the medical student to...		Teaching HC		Non Teaching HC				Chi-square P-value
		n	%	n	%	n	%	
Observe consultation	No	22	22%	20	20%	42	21	0.728
	Yes	78	78%	80	80%	158	79	
Discuss issues with doctor in consultation	No	18	18%	21	21%	39	19.5	0.592
	Yes	82	82%	79	79%	161	80.5	
Participate in history taking	No	12	12%	14	14%	26	13	0.674
	Yes	88	88%	86	86%	174	87	
Perform some of the examinations	No	22	22%	26	26%	48	24	0.508
	Yes	78	78%	74	74%	152	76	
Perform some procedures	No	25	25%	29	29%	54	27	0.524
	Yes	75	75%	71	71%	146	73	
Discuss with doctor after consultation	No	19	19%	16	16%	35	17.5	0.577
	Yes	81	81%	84	84%	165	82.5	

**Table 6: Information needed by patient in relation to medical student**

Additional information to be given								
What additional information would you like to be given at the time you are asked for your permission?		Teaching HC		Non Teaching HC				Chi-square P-value
		n	%	n	%	n	%	
The purpose of student presence	No	46	46%	52	52%	98	49	0.396
	Yes	54	54%	48	48%	102	51	
Year of medical student	No	37	37%	41	41%	75	37.5	0.562
	Yes	63	63%	59	59%	122	61	
Gender of the student	No	33	33%	39	39%	72	36	0.377
	Yes	67	67%	61	61%	128	64	



**Table 7: The effect of medical student presence on the level of consultation from a patient's point of view**

Affect of presence of student on your consultation		Teaching HC		Non Teaching HC				Chi-square P-value
		n	%	n	%	n	%	
It would make consultation	better	50	50%	48	48%	98	49	0.520 <sup>1</sup>
	same	44	44%	49	49%	93	46.5	
	worse	6	6%	3	3%	9	4.5	
Amount of time spent by doctor with patient	Longer	55	55%	57	57%	112	56	0.613
	Same	39	39%	34	34%	73	36.5	
	Shorter	6	6%	9	9%	15	7.5	

**Table 8: Concerns of participants regarding presence and involvement of medical students**

		Teaching HC		Non Teaching HC				Chi-square P-value
		n	%	N	%	n	%	
Concern of confidentiality	No	74	74%	77	77%	151	75.5	0.622
	Yes	26	26%	23	23%	49	24.5	
Appropriate to discuss your consultation after leaving	No	26	26%	28	28%	54	27	0.750
	Yes	74	74%	72	72%	148	73	
Appropriate to look at medical record	No	29	29%	39	39%	68	34	0.136
	Yes	71	71%	61	61%	132	66	
Permission before looking at medical record	No	28	28%	33	33%	61	30.5	0.443
	Yes	72	72%	67	67%	139	69.5	

## DISCUSSION

While the attitudes of patients to medical students' presence during consultation have been studied in the west and a single regional study has taken place in Gulf area, [7] yet, the current fieldwork is the only attempt to uncover the patients' attitudes in Bahrain. Few studies have examined what patients think about taking part in medical education or whether their views coincide with those of medical educators [8,9] However, most papers suggest that patients feel positive about participating in medical education. [10]

It was clear from the results of our study that patients in general have strong positive attitudes (94.5%) regarding involving medical students in health clinic consultation as part of their training. The main reason perhaps is the educational level of the research sample that contains patients with a university degree or higher (42%). However, a much larger sample size would be needed for more detailed analysis of patients' perspective and probably a wider range of participants to prove the above assumption. It seems that the results of the current study are consistent with previous studies evaluated patients' attitudes. [7] Overall the findings of this study supported those of previous studies of patients' opinions of medical students conducted in

other parts of the world with some expected variations. [1,3-9,11]

Although this study selected two types of health care centres: the general and the teaching health centres, the trend in patients' views to medical students' presence was consistent, with no statistical significance between the above settings; and the same was true for the Saudi's study. [7] Our results were also in consistency with Sweeney's findings regarding the circumstances in which patients may not want the medical student to be either involved or present. These times include seeing the medical students before meeting the doctor when (74%) of participants see "NO" and the same for seeing the student after the consultation. According to Sweeney and Morrison J, Murray T patients are much less willing to see a medical student without general practitioner supervision. [6,11]

The same hesitation to the presence of a medical student appeared in case of internal examination (70%) and sexual problem (72%). In Saudi's study researchers found a similar result of patients' reluctance to accept student involvement in intrapartum care compared to primary care. [7] Though, in Sweeney's study (2010) only 41% of the study subjects disagreed to allow medical students during the above procedures. [6] Compared to Sweeney's

result the intensity of the disagreement is much higher in Bahrain and Saudi Arabia which is highly expected especially in a conservative community like the Arabian Gulf.

In contrast to the above matter of privacy, surprisingly, the patients' reaction to the issue of confidentiality of records was totally unexpected. It seems that patients do not consider student looking at their medical reports and discussing their records with the doctor as part of their privacy. Yet, about 70% of participants preferred that student participation be requested, rather than imposed, as also documented by Magrane *et al.* [12]

In contrast to earlier studies gender issue did not play a major role in patient's attitudes towards medical students. [2,6,7] It was clear for the findings that the gender of the students is not a strong indicator of patients' preference; only 64% of participants showed an interest to know the gender of the student attending their consultation which could give equal chance to both genders to practice their training comfortably.

The current study has two principal limitations. The first, the data was based on a quantitative approach which is not enough reflecting patients' attitudes furthermore the data were based on a structured self-administered questionnaire with no chance for patient's justification or clarification. Consequently the researchers suggest applying another phase of this study that utilizes a qualitative data collection in order to provide more insight to this study. The second limitation was the scope of this study, the study sample may not represent the patients' attitudes of most of the patients to a medical student' presence since it focused on only two regions due to time pressure.

## CONCLUSION AND RECOMMENDATIONS

This study showed a great willingness from patients to accept considerably students' involvement in their

consultation. This represents an important potential for greater student experience keeping in mind the growing number of medical students. The above readiness could be utilized by medical training facilitators. Data from this study suggest that providing information in advance to patients about the involvement of medical students could enhance patient's cooperation and understanding and may even help foster acceptance.

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