Original Research Article

Perception of university students about doctors and quality of health care provision at clinics: a multi-national study in India, Pakistan, Spain and United States of America

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ABSTRACT

Background: Patient satisfaction is considered as an indicator of the healthcare quality. Information on patient satisfaction based on medical expertise of the physician, interpersonal skills, physician-patient interaction time, perception and needs of the patient allow policymakers to identify areas for improvement. Primary care services and healthcare structure differ between the countries. The present study was done to determine and analyze the determinants associated with patient satisfaction in India, Pakistan, Spain and USA.
Methods: This descriptive study was performed in January to August 2019 among students from Mumbai University, India, Dow University of Health Sciences, Karachi, Pakistan, University CEU Cardenal Herrera, Valencia, Spain, Texas State University, Texas, USA. On the basis of the eligibility criterion (those who gave a written informed consent and were registered students of respective university) 890 (India: 369, Pakistan: 128, Spain: 195, USA: 99) students were selected for the present study.
Results: India had almost similar male (49%) to female (51%) ratio of participants. For other 3 countries (PK, ES, US), female participant percentage was nearly 20% or even more as compared to male participants. Overall participant's satisfaction score about medial expertise of the doctor were highest in India (71%) and were lowest in Spain (43%). Overall satisfaction score about time spent with doctor were highest for India (64%) and were lowest for Spain (41%). Overall satisfaction score about communication with doctor were highest for US (60%) and were lowest for PK (53%). Overall satisfaction score for medical care given by the doctor was lowest in PK (43%) and was highest in US (64%). Overall satisfaction about doctor, highest number of US (83%) and lowest number of PK (32%) participants were satisfied about medical interaction with doctors.
Conclusions: These multi-country findings can provide information for health policy making in India, Pakistan, Spain and USA. Although the average satisfaction per country, except Pakistan is more than 60%, the results suggest that there is ample room for improvement.

Keywords: Communication, Medical expertise, Health services, Patient satisfaction

INTRODUCTION

In recent years in country like India, there were many issues of negligence on the parts of physicians, hospitals. People have expressed dissatisfaction with the services offered by physicians and hospitals. There are incidences of attack on physicians from patient families believing carelessness on the part of the physician leading to death or serious damage to the health of patient.[1] Today, medicine is being demystified and with that the next to god status physicians held in places.

Patient satisfaction is considered as an indicator of the healthcare quality.[2,3] Information on patient satisfaction based on medical expertise of the physician, interpersonal skills, physician-patient interaction time, perception and needs of the patient allow policymakers to identify areas for improvement. It has also been shown that patient satisfaction is linked with greater adherence to treatment and recommendations, and keeping appointments.[1,2]

Primary care services and healthcare structure differ between the countries as a result of different social, historical, economic and cultural factors.[2]

The present study was done to determine and analyse the determinants associated with patient satisfaction in India, Pakistan, Spain and USA through university collaborations.

METHODS

This descriptive study was performed in January to August 2019 among students from Mumbai University, India, Dow University of Health Sciences, Karachi, Pakistan, University CEU Cardenal Herrera, Valencia, Spain, Texas State University, Texas, USA. Students were contacted by study team members in their classrooms and were given a brief introduction about the research project. Those who desired to participate were explained the purpose and objectives of the study.

On the basis of the eligibility criterion (those who gave a written informed consent and were registered students of respective university) 890 (India: 369, Pakistan: 128, Spain: 195, USA: 99) students were selected for the present study.

Inclusion criteria

Student of respective university with valid student identity card, ready to sign informed consent form, ability to converse in English or in local language.

Exclusion criteria

Not ready to sign informed consent form, visiting student from other universities, mentally challenged, not able to understand the questionnaire.

Study instrument

The survey questionnaire was prepared in English after reviewing the literature for similar studies. The questionnaire was framed to gather information on demographics and satisfaction towards physician, his clinic and overall services. There were total 36 questions related to various domains such as: technical expertise of physician (10 questions), interpersonal aspects (7 questions), physician-patient interaction time (2 questions), patient communication (5 questions), general satisfaction about the medical care (6 questions), access to physician (5 questions), and one question on overall patient satisfaction.

A pilot study was done with a sample of 20 students from each country, to know the average time required for face to face interview for completing the questionnaire and to ensure that it is appropriate and understandable to students. Pilot population was not part of the final study.

Collection of data was done by interviewing the students face to face in the student office with prior appointment by a study team member. The purpose of the research was explained to respondents, anonymity and confidentiality were guaranteed and maintained. The researchers complied with the international ethical guidelines for research. The data was recorded into the predesigned case report form (CRF) by interviewers.

Statistical analysis

Collected data from individual CRF was entered into Microsoft excel and was verified by the authors other than interviewers. Data were analyzed by using descriptive statistical methods and a bivariate analysis was conducted with all relevant independent variables, p-value ≤0.05 was considered as significant. IBM SPSS version 23 was used for statistical analysis.

RESULTS

Table 1 shows, India had almost similar male (49%) to female (51%) ratio of participants. For other 3 countries (PK, ES, US), female participant percentage was nearly 20% or even more as compared to male participants. Majority of the participants (IN; 58%, PK; 74%, ES; 79%, US; 96%) were those who were enrolled in bachelor program of their studies. Students belonged to average age of 22 to 25 years as seen in table 1. Compared to other 3 countries (IN; 17%, PK; 17%, US; 21%), higher number of Spanish participants (24%) had chronic diseases.

Table 2 shows, over 60% of the doctors in these countries (IN, PK, ES, US) were males with average age above 40 years. Average distance to clinic varied from minimum 4 km (IN) to 8.6 km (PK). All the doctors visited by participants from Spain and US were MD's. While IN and PK had doctors with MBBS qualification.

Table 3 shows, there were total ten questions regarding student's satisfaction about medical expertise of the doctor. For only 2 out of 10 questions there was significant difference between countries. Fifty eight percent participants from US believed that doctor needs to be more through in treating and examination. Sixty-five percent of the participants from Pakistan believed that clinics do not have everything to provide general medical care. While more than 70% of the participants from IN, ES, and US believed in doctor's diagnosis, 68% participants from Pakistan did not believe in doctor's diagnosis. Similarly, 68% of the Pakistani participants believed that doctor does not know about latest medical developments. Eighty two percent of the US participants believed that doctor lacks experience with their medical problem and had the doubts about the doctor giving the treatment. More than 1/3rd participants from IN, ES, US believed that their doctor is very competent and well trained, but only 32% participants from PK believed this fact. Over 60% of the participants from IN, PK, US believed that their doctor never exposes them to unnecessary risk, but 88% participants from ES disagreed with this. While more than 50% of the participants from IN, PK, ES believed that doctor gives advice about ways to avoid the illness and staying healthy, 71% US participants disagreed with it. Overall satisfaction score regarding medical expertise of the doctor was highest in India (71%) and lowest in Spain (53%).

Table 4 shows, for 6 out of 7 questions there were significant differences between the responses from countries regarding satisfaction about interpersonal aspects of the doctor. Eighty percent of ES and 72% of US participants thought doctor is only business minded. Around 1.3 of the PK participants believed that doctor does not do best to keep him from worrying. Seventy two percent ES participants believed that sometimes doctor make them feel foolish. Only 35% PK participants felt that doctor treats in a very friendly manner. Seventy seven percent of the US participants believed that doctors should treat them with more respect. Overall participant's satisfaction score about medial expertise of the doctor were highest in India (71%) and were lowest in Spain (43%). Table 5 shows, for both the questions regarding satisfaction about the time spent with the doctor there were significant differences between the countries. As seen in (Table 5), for both the questions there were significant differences between countries regarding the time spent with the doctor. Only 34% of the ES participants believed that doctor usually spends quality time with them. Fifty-two percent of the ES participants believed that sometime doctor is in too much hurry while treating them. Overall satisfaction score about time spent with doctor were highest for India (64%) and were lowest for Spain (41%).

Table 1: Demographic details of participant.

Question	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)
Total number of participants and percentage	369(100)	128(100)	195(100)	99(100)
Gender				
Male	181 (49)	47 (37)	47 (24)	39 (40)
Female	188 (51)	81 (63)	148 (76)	60 (60)
Education				
BS	216 (58)	95 (74)	155 (79)	95 (96)
MS	101 (27)	23 (18)	25 (13)	4 (4)
PhD and Post doc	52 (14)	10 (8)	15 (8)	0
Average age (years)	24	25	22	22
Participants with a chronic disease	64 (17)	22 (17)	46 (24)	21 (21)

Table 2: Information about doctor and clinic.

Question	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)
Gender of doctor				
Male	228 (62)	99 (77)	117 (60)	63 (63)
Female	141 (38)	29 (23)	78 (40)	36 (37)
Average age of doctor	48	43	46	48
Range of age of doctor	22-85	19-80	20-80	30-76
Average distance to clinic (km)	4	8.6	5.8	6.5
Range of distance to clinic (km)	1-16	2-18	1-80	1-45
Medical degree of doctor				
MBBS	157 (42)	103 (80)	0	0
MD	212 (58)	25 (20)	195 (100)	99 (100)

Table 3: Student's satisfaction about medical expertise of doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
1. Doctor is careful to check everything while treating and examining me	yes	301(81)	100(78)	128(65)	83(83)	21.45	<0.001
2. Doctor needs to be more thorough in treating and examining me	no	289(78)	104(81)	118(60)	42(42)	63.97	<0.001
3. I think this clinic has everything needed to provide general medical care	yes	262(71)	45(35)	123(63)	76(76)	7.7	0.0534
4. I believe in doctor's diagnosis	yes	276(74)	41(32)	141(72)	85(85)	10.1	0.01
5. Doctor knows about the latest medical developments	yes	254(68)	42(32)	126(64)	78(78)	6.3	0.09
6. Doctor lacks experience with my medical problems	no	247(66)	110(85)	85(43)	18(18)	85.95	<0.001
7. My doctor is very competent and well-trained	yes	279(75)	42(32)	145(74)	90(90)	17.75	<0.001
8. I have some doubts about the ability of the doctor who treated me	no	248(67)	125(97)	70(35)	18(18)	99.7	<0.001
9. Doctor never exposes me to unnecessary risk	yes	248(67)	96(75)	24(12)	77(77)	216.3	<0.001
10. Doctor never gives advice about ways to avoid illness and stay healthy	no	248(67)	108(84)	87(44)	29(29)	58.2	<0.001
Average score		71%	63%	53%	59%		

Table 6 shows, for five out of six questions regarding satisfaction about communication with doctor there were significant differences between the countries. Highest number of participants from US (73%) and lowest from PK (40%) believed that doctor is good about explaining the reason for medical tests. Fifty-eight percent of the ES participants believed that sometimes doctor uses medical terms without explaining the meaning. Only 28% of the PK participants agreed that during medical visit they are allowed to say everything which they thought important.

Seventy five percent of US participants agreed that sometimes doctor ignores what was told by the participant. Only 30% PK participants believed that doctor carefully listens to what participant says. Overall satisfaction score about communication with doctor were highest for US (60%) and were lowest for PK (53%). Table 7 shows, for all the six questions regarding satisfaction about medical care given by the doctor there were significant differences between the countries. Satisfaction about the medical care given was least in PK (38%) participants and was highest in US (80%).

Sixty-two percent of the PK participants believed that some things regarding the medical care given by doctor could be better. Only 36% PK participants believed that medical care given by the doctor is excellent, while it was highest in US (81%).

Fifty-eight percent of the US participants were dissatisfied with some of the things regarding medical care given by doctor. Overall satisfaction score for medical care given by the doctor was lowest in PK (43%) and was highest in US (64%).

Table 8 shows, for all the five questions regarding satisfaction about access to doctor there were significant differences between the countries.

Highest number (91%) of participants from IN and lowest number of participants (55%) from Pakistan agreed that doctor's clinic should be open for more hours. Only 35% of the participants from PK said that they can reach the doctor without any problem if they have any medical question, while it was highest for IN (64%) participants.

Table 4: Student's satisfaction about interpersonal aspects of doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
11.Doctor is only business minded	no	248(67)	106(82)	59(20)	28(28)	96.22	<0.001
12.Doctor always does best to keep me from worrying	yes	229(62)	45(35)	118(60)	64(64)	0.85	0.8
13.While medical check-up and consultancy, doctor should pay more attention to my privacy	no	327(88)	100(78)	95(48)	46(46)	131.1	<0.001
14.The doctor who treats me has a genuine interest in me as a person	yes	233(63)	74(57)	102(52)	68(68)	24.33	<0.001
15.Sometimes, doctor made me feel foolish	no	241(65)	109(85)	56(28)	21(21)	102.9	<0.001
16.My doctor treats me in a very friendly manner	yes	258(69)	46(35)	108(55)	82(82)	25.04	<0.001
17.Doctor should treat me with more respect	no	313(84)	124(96)	71(36)	23(23)	219.9	<0.001
Average score		71%	67%	43%	48%		

Table 5: Student's satisfaction about time spent with doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
18.Doctor usually spends plenty of time with me	yes	204(55)	61(47)	68(34)	48(48)	21.9	<0.001
19.Sometimes, doctor is in a too much hurry while treating me	no	273(73)	101(78)	94(48)	54(54)	40.62	<0.001
Average score		64%	63%	41%	51%		

Table 6: Student's satisfaction about communication with doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
20.Doctor is good about explaining the reason for medical tests	yes	229(62)	52(40)	119(61)	73(73)	7.4	0.059
21.Sometimes, doctor uses medical terms without explaining the meaning	no	141(38)	112(87)	83(42)	43(43)	29.39	<0.001
22.During my medical visit I am always allowed to say everything I think is important	yes	242(65)	37(28)	140(71)	84(84)	14.24	0.002
23.Doctor sometimes ignore what I told him / her	no	257(69)	101(78)	64(32)	25(25)	105.2	<0.001
24.Doctor listens carefully to what I have to say	yes	254(68)	39(30)	143(73)	76(76)	3.09	0.3

Table 7: Student's general satisfaction about medical care given by doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
25.I am very satisfied with the medical care I receive	yes	246(66)	49(38)	131(67)	80(80)	10.1	0.01
26.There are some things that could be better	no	334(90)	49(38)	146(74)	64(64)	47.71	<0.001
27.All things considered, medical care I receive from doctor is excellent	yes	243(65)	47(36)	114(58)	81(81)	16.26	<0.001
28.There are some things that need to be improved	no	329(89)	49(38)	146(74)	64(64)	42.86	<0.001
29.Medical care I receive here is just about perfect	yes	232(62)	49(38)	87(44)	54(54)	18.81	<0.001
30.I am dissatisfied with some things	no	274(74)	91(71)	104(53)	42(42)	47.4	<0.001
Average score		74	43	62	64		

Table 8: Student's satisfaction about access to doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
31.The clinic should open for more hours	no	337(91)	71(55)	124(63)	73(73)	85.92	<0.001
32.If I have a medical question, I can reach the doctor for help without any problem	yes	238(64)	46(35)	99(50)	46(46)	17.82	<0.001
33.I find it hard to get an appointment right away	no	296(80)	75(58)	120(61)	58(58)	31.8	<0.001
34.The timing of doctor is convenient for me	yes	231(62)	43(33)	80(41)	41(41)	38.1	<0.001
35.I am usually kept waiting for a long time when I am at this clinic	no	300(81)	44(34)	151(77)	58(58)	23.9	<0.001
Average score		75	53	50	59		

Table 9: Student's overall satisfaction about doctor.

Variable	Expected answer	India (IN) n (%)	Pakistan (PK) n (%)	Spain (ES) n (%)	USA (US) n (%)	χ^2 value	p-value
Total number of participants and percentage		369(100)	128(100)	195(100)	99(100)		
36.Considering all things, I am satisfied about the medical interaction with doctors in this clinic	yes	265(71)	42(32)	124(63)	83(83)	13.94	0.002

More than 55% of participants from all the countries said that it is not hard to get an appointment with doctor right away. Sixty-seven percent of the PK participant opined that timing of the doctor is inconvenient for them. Sixty-six percent of the ES participants felt that they have to wait long when they are in the clinic.

Table 9 shows, when asked about overall satisfaction about doctor, highest number of US (83%) and lowest number of PK (32%) participants were satisfied about medical interaction with doctors.

DISCUSSION

Patient views about the health care services have become increasingly important and getting recognition over the period of last 20 years.[4] Patient's satisfaction has become major variable in assessing and improvising health care quality.[4] Patients satisfaction reflects patient's views based on his experiences, and expectations.[5] These type of evaluations may help to determine the positive aspects as well as points where improvement needs to be done. This study results showed that except for Pakistan (32%), more than 60% of participants from India, Spain and USA were satisfied about the medical interactions with doctor in the clinic. Results differ from a study done in Pakistan by Jalil A, which showed 88% patients were satisfied with the doctor patient interaction.[6] Reason for this difference could be due to specific therapy area chosen for this study i.e. diabetes. Author also highlighted that despite majority of the patients scored high satisfaction scores, there satisfaction was influenced by the absence of alternative source of consultation, tolerance of disrespect and affordability. Patients felt they were inferior to the doctors and were unable to judge the professional competence of doctors.[6] In regard to India results are similar to a study done by Goel S, in Chandigarh in India which showed that 88% participants were satisfied with doctor services.[7] Overall satisfaction results with participants from US (83%) are higher than the study done by Jha et al, which showed 67% patients were satisfied with the doctor services.[8] This difference might have arisen because of different study settings. Study was done in private clinics and study done by Jha et al, was done in hospital settings.[8] With reference to Spain, results (63%) are higher than the study done by Valls et al, (55%).[9] This might be due to the method of data collection and year of the study. Results of Valls et al were based on the NHS Spain data from 2005 to 2014, whereas authors results were based on one to one interaction with participants in 2019.[9]

In regard to satisfaction about medical expertise of the doctor results (71%) are in line with the study done by Mankar et al, (67%) in Mumbai area. A study done by Prasanna et al, in Mangalore, India has shown very high satisfaction percentage (94%) among the participants.[10] These differences might have arisen because Prasanna et al, study was done in a private hospital belonging to a Christian charitable trust settings vs this study was done with participants going to different private doctors.[10]

Research studies have shown that dissatisfied patients are more likely to discontinue seeking consultation with a physician whom they perceive as incompetent.[11,12]

A study from government hospital Lucknow, India showed that 69% participants were satisfied about interpersonal aspects of doctor.[13] These results are similar to 71% satisfaction observed in Indian participants in the present study. With respect to Pakistan, results (48%) are better than a study done by Jalil et al, (24%). These differences might have arisen due to different patient population (diabetic) and place of study (outpatient diabetes clinic).[6] A study from six EU countries done by Stepurko et al, has also shown that for both outpatient physician services and for inpatient hospital services, the service users attach the highest importance to 'the reputation and skills of physician/surgeon.[14]

Doctor patient communication is of great importance to primary health care. Communication is the tool of information exchange, necessary to solve health problems, and to create the therapeutic relationship, required to manage health problems and gain confidence. Communication can meet the patients' need to 'know and understand' as well as to doctor patient communication is of great importance- 'be known and understood'.[15-17]

Regarding the time spent with doctors in a study done by Jalil et al, from Pakistan, 71% participants were unsatisfied regarding the time spent with doctor as compared to the present study which showed lesser number of dissatisfied Pakistani participants (63%).[6] With respect to India results (64%) are similar to study done by Mankar et al, in Mumbai (59%).[3] It has been reported that doctors in Pakistan, India and Bangladesh spend the lowest amount of time while attending to their patients compared to the rest of the world.[18]

It was also mentioned that the doctors in the United States spend around 20 minutes to comprehensively examine their patients.[18] Medical experts claim that declining checkup time for patients indicated poor health conditions. However, this is common in densely populated countries, which face a shortage of doctors. As a result, there is no cure to combat low checkup times.[18] It has been also seen that doctors cannot properly examine patients within five minutes, adding that low checkup times are likely to result in longer treatment duration and imprudent use of resources.[18] With respect to US, as the United States is seeing a shift in healthcare from treating patients to treating consumers, an excessive amount of resources are being used for advertising and marketing. The market for healthcare providers is vast, therefore competition is increasing. When deciding on where to receive elective healthcare, patients tend to forget a hospital's clinical outcomes and seem to focus on the "window dressings" of free parking, food quality, guest internet access, and other amenities. These amenities aim to earn repeat business and recommendations from current patients.[19]

Regarding access to doctor, study showed that other than Spanish participants more than 70% of the Indian, Pakistani and US participants were satisfied. Similar results were seen in study done by Mankar et al, in Mumbai, India, which showed that 75% patients were happy with queues at the hospital.[3] A study done by Goel et al revealed that 66% participants were satisfied with the hospital timings which is in line with study results (62%).[7] A study done by Soomro et al, in Pakistan showed that timing of the doctor was convenient to 93% of the patients as compared to 33% seen in present study. This difference might have arisen because Soomro et al, study was done in dental patients, who always have the appointment as compared to visiting general physician without appointment.[20] With respect to the general satisfaction about medical care given by doctor, Pakistani participants were least satisfied (43%) as compared to IN, ES, and US. Average checkup time for patients is 1.8 minutes in Pakistan, which can affect treatment, patient recovery and can lead to non-satisfaction among patients.

CONCLUSION

It was found that very few studies done to know patient satisfaction in India, Pakistan, Spain and United States of America and none to know university students' views about doctor services. It is extremely important to get the views not only of general public, patients but also those of students. Students as a young generation are the ones who can help to offer good suggestions based on the technology development, information technology and rapidly changing health scenario. All these suggestions, ideas and feedback could help to decide the formulation and implementation of healthcare policies.

These multi-country findings can provide information for health policy making in India, Pakistan, Spain and USA. Although the average satisfaction per country, except Pakistan is more than 60%, the results suggest that there is ample room for improvement. Specifically, many participants have shown less satisfaction in regard to various domains of health care such as medical expertise, interpersonal skills, time and communication, and access to doctor. There is an urgent need to not only acknowledge but also to effectively address this problem. When accessibility and quality of care become key policy goals, and health care governance can be improved leading to satisfaction of health care users.

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