

Assessing the attitudes and knowledge of medical students towards Patient-Centred Care across different study years: A cross-sectional study

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Abstract

Objective: To determine how medical students viewed the importance of patient-doctor communication, to assess their knowledge about patient-centred care, and to compare the attitudes of medical students in their pre-clinical and clinical years of study towards patient-centred care.

Method: The cross-sectional study was conducted from April to September 2023 at Federal Medical and Dental College, Islamabad, and Rawalpindi Medical University, Rawalpindi, Pakistan, and comprised medical students of either gender from 2nd to 5th academic year. Data was collected using the Patient-Practitioner Orientation Scale. Data was analysed using SPSS 27.

Results: Of the 322 students, 178(55.3%) were males and 144(44.7%) were females. The mean score was 3.60 ± 0.47 , while the sharing and caring sub-scores were 3.23 ± 0.66 and 3.99 ± 0.52 , respectively. The attitude of students overall was slightly patient-centred. Different study years showed variance in patient-centred scores which were also affected by cultural, demographic and gender parameters ($p < 0.05$).

Conclusion: The attitude of the students leaned slightly towards patient-oriented behaviour.

Keywords: Patient-centred care, Physician-patient relations, Students, Medical, Patient satisfaction. (JPMA 74: 1570; 2024)

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The provision of compassionate healthcare facilities honouring a patient's compliance, values, sense of self and needs while formulating a treatment plan respecting their socioeconomic background forms the core of patient-centred modern medicinal practices.¹ The idea of patient-centredness evolves from a single foundational principle; treating the patient as an 'individual' and not just an 'illness' that needs to be dealt with.² Approaching the duty hours with this mindset has proven to strengthen and maintain a healthy doctor-patient relationship, resulting in the creation of a work environment that is marked by empathy, emotional acceptance and patient satisfaction.

Practitioners who tend to go about their day displaying empathy at all hours are more likely to form an accurate diagnosis as patients are generally more inclined towards disclosing the unspeakable parts of their disease when received with utmost care.³ Not only does this aspect play a contributory role towards lower cost of care, but also enables the patient to actively participate in making well-thought-out decisions about opting for the most suitable treatment options available. Researchers reported that a decline in the incidence of commonplace medical errors

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can only be brought forth by boosting the communication skills of yet-to-practice medical students by arranging a bunch of different initiatives, like e-learning workshops, small group discussions (SGDs) and patient simulations.^{2,4}

In the modern era, patients expect to know unreduced details about their disease and want to get involved in decisions concerning their treatment plans.⁵ It contradicts the methods of treatment in the past when doctors decided everything, and medical institutions worldwide as well as accrediting bodies have emphasised the importance of patient-centred care (PCC).² Nowadays, respecting the patient's values, listening to their concerns, and having flexible policies to ensure coordination are of core importance for a doctor.⁶ These qualities also tend to establish a substantial relationship between the doctor and the patient. For doctors to have a more patient-centred perspective while making a decision, it is fundamental that they have good communication skills.⁷ Organised education and drills have shown to improve communication skills.

Considerable research conducted over the years presents growing evidence that the ultimate respect for patient's autonomy along with justice in the distribution of a limited number of resources amongst a plethora of deserving people⁸ can only be dispensed once the future practitioners indulge in ethical patient-centred practices on a daily basis. The need to assess and chart this very

aspect in terms of numerical values has urged physicians globally to use the Patient-Practitioner Orientation Scale (PPOS) on medical students still in their undergraduate years.⁹ Necessary introductions or omissions were made in each of the questionnaires catering to the cultural demands of the target countries. The Chinese variant assessed the attitudes towards PCC with regard to gender differences, while the one employed in Sub-Saharan Africa shed light on the vertical, stand-alone programmes failing to provide patients with necessary care.^{1,7} Different factors, like overwhelming hospital load, barriers in communication and previous negative experiences in medical schools, play an essential role in quantifying the decline in medical students' empathetic attitudes in Pakistan.¹⁰

Different studies have also shown varying results in factors determining patient-centredness, like demographics, sociocultural elements, exhaustion levels and professional environment.¹¹ A gender disparity is also seen in attitudes towards patients in recent studies, manifesting women being more empathetic and patient-centred. Some studies have shown that attitudes towards patient-centredness follow a declining pattern with a rise in seniority levels. The privation in patient-centred attitudes as medical students approach senior years is because of the studies being more disease-centred and the loss of emotions in students due to an increased workload.⁶

Racial and cultural disparities can never be overlooked when shifting a population's focus towards patient-centred care. There exist significant discrepancies within a particular target audience owing to vastly different cultures, traditions and languages. Pakistan is no exception, especially when it comes to medical institutions. Students belonging to different regions have vastly dissimilar methods of communicating and dealing with a patient that makes attaining a consensus over uniform PCC methods very troublesome. Similarly, patient-centred attitudes have been observed to show fluctuations when it comes to gender-based studies in Pakistan and around the world.¹²

A study on the same subject revealed that the in-use curricula, despite preaching empathy as a baseline requirement for being a satisfactory doctor, have failed to achieve the desired results, as students show a propensity to compromise on basic communication skills as they move forward with their undergraduate studies.¹³

The current study was planned to determine how medical students view the importance of patient-doctor communication, to assess the knowledge of medical students about PCC and their views about the active involvement of patients in healthcare, and to compare the

difference of attitudes between students in early years and in clinical years of undergraduate studies towards PCC.

Subjects and Methods

The descriptive, cross-sectional study was conducted from April to September 2023 at Federal Medical and Dental College (FMDC), Islamabad, and the Rawalpindi Medical University (RMU), Rawalpindi, Pakistan. After approval from the ethics review board of Shaheed Zulfiqar Ali Bhutto Medical University, Islamabad, the sample size was calculated using OpenEpi calculator¹⁴ with 95% confidence level. The sample was raised using convenience sampling technique. Those included were medical students of either gender from 2nd to 5th academic year at the 2 participating institutions. Those not willing to participate and students who could not fill the study questionnaire in one go were excluded. After taking informed consent, the pre-tested study questionnaire was distributed among the students via Google Forms.

The questionnaire had two sections. The first section dealt with socio-demographic details, such as age, gender institution, year of study, cultural background and residency. The second section comprised the English version of pre-validated PPOS,⁹ which is an 18-item instrument with two sub-scales; sharing (item Nos. 1, 4, 5, 8, 9, 10, 12, 15 and 18), and caring (item Nos. 2, 3, 6, 7, 11, 13, 14, 16 and 17). The reliability of the questionnaire is known to be good (Cronbach's alpha=0.75).¹⁹ Each item was scored using a 6-point Likert scale, ranging from 1=strongly disagree to 6 = strongly agree. Three items (9, 13 and 17) were reverse-worded for which the scores were reversed. Overall PPOS score was calculated as the mean score of all the 18 items, and the two subscale scores were also calculated.

Data was analysed using SPSS 27. Sample mean was considered the point estimate. Descriptive analysis was employed to work out frequencies and percentages of demographics, and to calculate total and subscale mean score +/- standard deviation. Independent t-test and one-way analysis of variance (ANOVA) were applied, as appropriate, to see if the difference of mean values was significant with respect to study variables. $P < 0.05$ was considered significant.

Results

All the 322(10%) students approached responded, with 178(55.3%) being males and 144(44.7%) females. There were 75(23.3%) students from 2nd year, 72(22.4%) from 3rd year, 87(27%) from 4th year and 88(27.3%) from 5th year. There were 164(50.9%) day-scholars, while the rest lived in hostels. Prior knowledge of PCC was reported by 189(58.7%) students (Table 1).

Table-1: Respondents' data.

Characteristics	n (%)
Gender	
Male	178 (55.3)
Female	144 (44.7)
Academic Year	
Second Year	75(23.3)
Third Year	72(22.4)
Fourth Year	87(27.0)
Fifth Year	88(27.3)
Residency	
Hostellers	158(49.1)
Day-scholar	164(50.9)
Knowledge of PCC	
Yes	189(58.7)
No	133(41.3)

PCC: Patient-centred care.

Table-2: Mean scores for PPOS and subscales.

Scales	Mean±SD
PPOS Scale	3.60±0.47
Sharing Sub-scale	3.23±0.66
Caring Sub-scale	3.99±0.52

PPOS: Patient practitioner orientation scale, SD: Standard deviation.

Table-3: Total and subscale scores in relation to study variables.

	Mean PPOS Score	Mean Sharing Score	Mean caring Score
Gender			
Male	3.53±0.46	3.11±0.67	3.94±0.52
Female	3.71±0.46	3.37±0.61	4.04±0.51
<i>p</i> -value	<0.01	<0.01	0.067
Study Year			
Second year	3.54±0.46	3.26±0.61	3.81±0.53
Third year	3.50±0.51	3.10±0.68	3.90±0.53
Fourth year	3.66±0.46	3.26±0.62	4.05±0.51
Fifth year	3.70±0.42	3.27±0.70	4.13±0.46
<i>p</i> -value	0.021	0.330	<0.001
Residency			
Hostellers	3.49±0.48	3.09±0.69	3.90±0.55
Day-scholar	3.71±0.43	3.36±0.59	4.06±0.48
<i>p</i> -value	<0.001	<0.001	0.06
Quota Seats			
Punjab	3.58±0.33	3.20±0.05	3.97±0.04
ICT	3.73±0.09	3.41±0.11	4.05±0.09
Sindh	3.54±0.06	3.17±0.11	3.91±0.07
KP	3.56±0.10	3.22±0.13	3.90±0.11
Baluchistan	3.79±0.14	3.36±0.23	4.24±0.10
FATA	3.58±0.17	3.12±0.21	4.00±0.20
Gilgit Baltistan	4.12±0.21	3.90±0.33	4.33±0.19
Azad Kashmir	3.67±0.33	3.19±0.24	4.14±0.46
Overseas	3.34±0.15	2.79±0.24	3.89±0.10
<i>p</i> -value	0.029	0.076	0.312

PPOS: Patient practitioner orientation scale, ICT: Islamabad capital territory, KP: Khyber Pakhtunkhwa, FATA: Federally-administered tribal areas.

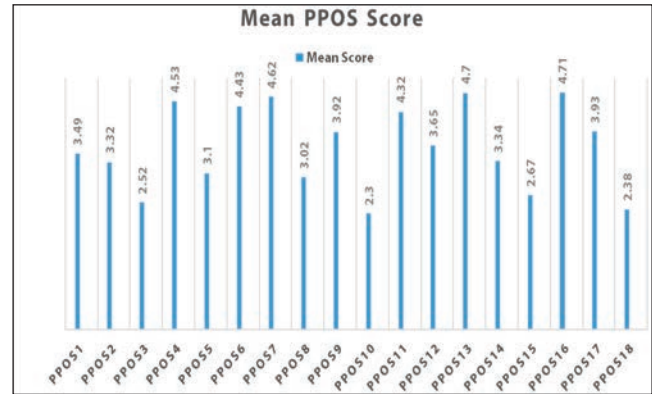


Figure: Mean scores of the whole sample towards different statements mentioned in the Patient Practitioner Orientation Scale (PPOS).

The mean score was 3.60±0.47, while the sharing and caring sub-scores were 3.23±0.66 and 3.99±0.52, respectively. The attitude of students overall was slightly patient-centred (Table 2).

With respect to cultural background, 198(61.5%) students were from Punjab, 33(10.2%) from Sindh, 31(9.6%) from Islamabad capital territory (ICT), 18(5.6%) from Khyber Pakhtunkhwa (KP), 17(5.3%) from Balochistan, while the rest were from federally-administered tribal areas (FATA), Gilgit-Baltistan (GB), Azad Jammu and Kashmir (AJK) and from overseas. The difference in overall mean PPOS scores among different cultural backgrounds was significant ($p \leq 0.05$), while the difference in sharing and caring subscale scores was non-significant ($p > 0.05$). Students from GB had the most positive attitude towards PCC, while overseas students scored the lowest (Table 3).

The difference of overall mean PPOS and sharing subscale scores between the genders was significant, with females being more patient-centred than males ($p < 0.05$), while the difference of caring subscale score was not significant ($p \geq 0.05$). The difference among academic years was significant for mean PPOS and caring subscale scores ($p < 0.05$), but not for the sharing subscale scores ($p > 0.05$). Students who lived away from homes, either in hostels or private accommodations, scored lower than students who lived at home ($p < 0.05$).

Mean scores of the whole sample towards the 18 PPOS statements were noted individually (Figure).

Discussion

The current findings suggested a positive attitude towards PCC, but it was not convincing enough when compared to the students of the United States, Canada, Denmark, Wales and South Korea.¹⁵⁻¹⁷ This difference might be linked to the lack of focus of local institutions and curriculum towards communication skills, dealings with patients, along with

lack of seminars and lectures on PCC.¹⁸ The attitude towards the caring subscale of PPOS was more positive than the sharing subscale. This highlighted the priority of the future doctors that they thought highly of patient's emotional wellbeing, socioeconomic status, their beliefs and values. However, the students showed provider-dominant attitude in 3 of the 18 PPOS items, showing that they preferred physical examination as the most important part of a medical visit. They were less inclined towards sharing power with patients in making decisions, and thought that patients generally wanted reassurance to lessen their worries than being informed about the details of their condition.¹

The current finding about females showing a more positive trend towards PCC than male students was in accordance with a study conducted in Australia.¹⁹ The female students also had a better mean caring score. The reason might be that females are often considered more empathetic, respectful and collaborative. These characteristics along with providing emotional care bring about better patient satisfaction.²⁰ There might be a cultural influence, too, as in some regional cultures, females are considered to be care-providers.

Further, day-scholars in the current study had higher PPOS scores than those living in hostels. The result was contradictory to another study in which the difference was not significant.¹² Issues like poor health, stress, and discomfort in the hostel lifestyle can cause poor attitudes toward the chronically ill and decreased empathy, leading to less favourable patient care.

Despite the burden of studies and increasing workload, students in clinical years showed more patient-centred attitudes than students in the second and third year of medical education. This finding was different from other studies which showed a decrease in the trend towards patient-centredness in clinical years of medical education.^{21,22} However, the rising PPOS scores through the course of medical education were consistent with studies conducted in Brazil and Sudan.^{23,24}

Furthermore, GB students in the current study had the highest mean PPOS score, while overseas students had the lowest. This maybe because the GB students had a sound understanding of the local culture because they are taught cultural values and hospitality throughout their school years. Since the concept of scouting is extremely prevalent in the GB community, these students grew up with the spirit of helping others.²⁵ In contrast, overseas medical students were not quite accustomed to the local cultural values, and showed low sharing skills because of not being able to communicate freely.²⁶ The different scores for

different cultural backgrounds suggested that race, culture and language affected the quality of doctor-patient relationship, which is accordance with earlier findings.²⁷ Another factor may be the difficulty the students face in communicating with patients. Students are taught medicine in English, and patients speak other regional languages, like Urdu, Sindhi, Punjabi, Balochi and Pushto. This causes a hindrance in developing a good doctor-patient relationship, which is the cornerstone of PCC.

Doctors should interact with patients with kindness, and provide them reassurance so they may let go of their anxiety and fears regarding their condition, which, in turn, will produce better health outcomes as the patients will be able to listen to the doctors' prescription attentively and might be motivated to act on it properly. Some patients might even be hiding some information during history-taking, and by dealing with them according to PCC principles, they might feel comfortable to a level of being open to doctors. In Pakistani medical setups, majority of the doctors know the patients by their diseases, but knowing and calling the patients by their names, treating them as equals irrespective of the socioeconomic status, use of humour in the conversation, and understanding their feelings will lead to improved patient satisfaction and results.

Although the current study tried to assess the attitudes of medical students towards patient-practitioner relationship, there are other factors that could provide valuable information. The limitation may be overcome through longitudinal studies exploring how various factors come into play, which is something that a cross-sectional study cannot do. Also, the current study did not include teachers even though including them could have been more valuable in order to identify the issues leading to low scores.

Conclusion

The overall pattern of attitudes of students was not significantly patient-centred. Females were more patient-oriented than males and the trend increased over the years of education, but was still below being slightly patient-centred. It is important for Pakistani medical schools to teach current and future medical students on how to relate to patients at the emotional level. This should be done by improved communication skills and empathy in the future doctors through revised curriculum.

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MH: Literature search, concept, study design, data collection, analysis, interpretation, writing, proof reading and revision.

II: Literature search, concept, study design, data collection, writing, proof reading and revision.

MDT: Literature search, data collection, interpretation and writing.

MBN: Literature search, data collection and writing.

WS: Data collection, analysis, interpretation and writing.

AH: Concept, study design and final approval.