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Research Article

Perception of Physician-Patient Relationship Among Medical Students of a Teaching Tertiary-Care Hospital of New Delhi

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A B S T R A C T

Introduction: A good physician-patient relationship is an ideal tool that helps not only formulate the diagnosis but also improve adherence and compliance of the patient towards the prescribed treatment and lifestyle adjustments.

Objective: To find the level of good perception of the physician-patient relationship among medical students and various factors affecting it.

Methodology: This study was conducted among postgraduate and undergraduate medical students of a tertiary-care hospital. The Patient-Practitioner Orientation Scale (PPOS), a pre-validated tool, was used in an online form to assess the physician-patient relationship and the factors affecting it.

Results: A total of 579 students participated in the study. Most of the participants were below 20 years of age. 83.6% were undergraduate medical students, and most belonged to upper and upper-middle socio-economic strata. 28% reported having a first-degree relative practising medicine. Most participants felt a need for formal training in communication skills. The mean scores on the PPOS obtained by participants were low (mean score = 3.48, SD = 0.5). Scores were similar but marginally better in the caring domain. Older participants had better scores in the caring domain. Overall, females scored better in both domains, whereas the experience of physical/ verbal abuse was a significant factor for higher caring scores.

Conclusion: This study found that the physician-patient relationship is poor in a tertiary hospital in Delhi. Females had better patient-doctor orientation, while most of the participants felt there was a need for formal training in improving this, in the form of a communications workshop.

Keywords: Resident Doctors, Medical Students, Communication Skill, Tertiary Care, Hospital Violence

Introduction

A complex relationship exists between a patient and a doctor, which forms the foundation of healthcare. This relationship, called the physician-patient relationship (PPR), ideally consists of the six C's: Choice, competence, communication, compassion, continuity, and (no) conflict of interest.[1, 2] An important pillar of PPR is rapport formation, which is an important communication skill crucial in reducing patient stress and improving PPR status.[3, 4]

With the rise of consumerism, the status of a doctor has changed from a healer, which is a superior social position in many cultures, to a service provider.[2, 5] The patient, a consumer, is more concerned with receiving the highest quality of care for the resources and time invested.[6] The existing culture and nature of healthcare professionals to espouse patient-centric care has been rather defensive. This further points to the development of future healthcare professionals who could embrace patient-centric care to improve the current status of healthcare. Such changes have further highlighted the importance of establishing a good PPR, in an age where privacy is given prime importance. A good PPR is an ideal tool that helps in collecting valuable information from the patient to formulate the diagnosis and improve adherence and compliance of the patient towards the prescribed lifestyle adjustments along with a pharmacological prescription, thus achieving the intended therapeutic result. For the doctor, this is critical for patient satisfaction reduces the instances of ethical dilemma, and also reduces the incidence of violence.[7, 8]

It has been observed that one of the primary reasons for rejection of medical advice, frequently switching physicians, or missing appointments, is due to a lack of rapport between patient and physician. Failure of a patient to cooperate, even to keep appointments, is seen as a result of physician insensitivity or apparent indifference in attitude.[7]

In recent times, the focus on PPR has been limited to understanding the communication between the doctor and patient; rather than grasping the holistic concept of the doctor-patient relationship, which is not only limited to addressing the concerns of the patient but also encompasses dealing with mental dilemma linked to understanding the disease and dealing with the worry of treatment.

When it comes to the Indian scenario, little investment has been made by the government toward improving health care. According to data, India has nearly 7.265 doctors per 10,000 population compared to 35.55 in the US.[9] However, India is ranked 114 when it comes to healthcare expenditure per capita (2018), according to WHO.[10] This is further complicated by sub-standard infrastructure and increased patient load per doctor available. The problem of emotional and physical burnout further complicates the situation. Also, the doctor allotted to the patient is based on availability and not on their will. Further, the interview/history taking is mechanical, and the overall attitude towards the patient is paternalistic. These factors have gradually instigated a sense of mistrust and vulnerability in the minds of those seeking healthcare, and any mishap frequently leads to violence, especially in settings of high patient load and small private setups with low-security facilities.[11] This is as high as half in 12 months,[12] and more than two-thirds of the doctors in India have faced some sort of violence in their careers.[13] This isn't just the scenario in India; violence against doctors is encountered in healthcare settings in countries like China too and isn't exactly new in developed countries like the United States of America (USA).[14, 15]

Many techniques have been adapted to highlight and boost the physician-patient relationship (PPR), like communication skills training, minimising the use of medical terminologies while explaining medical conditions to the patients, the introduction of training in biomedical ethics and PPR into the medical curriculum, and highlighting the need for doctors and other health care professionals to be sensitive and react to patient's emotional aspects in the mainstream media and social media.[16] Innovative methods are being tried in various countries, for instance, "Medi-dramas" are used in China.[17]

With the rising importance of patient-centred care in healthcare delivery, it is important to understand and analyse various ways in which healthcare professionals develop patient-centred attributes and develop an effective PPR. This study also attempts to evaluate the orientation of doctors and medical students towards PPR and explores factors influencing it.

Materials and Methods

This cross-sectional study was conducted in a tertiary care teaching college and hospital in New Delhi. The study was conducted in August of 2021, after approval from the Institutional Ethics Committee of the medical college.

A self-administered electronic questionnaire, based on the Physician-Patient Orientation Scale (PPOS)[18] was circulated among the MBBS (Bachelor of Medicine and Bachelor of Surgery) students, interns, and post-graduate students who were studying or working in medical college at the time of data collection. Informed consent was obtained from each participant. The questionnaire covered the participants' demographical data (which included their age, state of origin (by birth), undergraduate or postgraduate student or resident status, year of study, occupation of the head of the family, total monthly income of the family, education of the head of the family (for measuring SES according to Modified Kuppuswamy SES Scale.[19] Questions such

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as whether any first-degree relative is a doctor, future plans, attendance of class on communication and ethics, and experiences of any physical, verbal, or mental abuse while providing patient care were also added to improve the understanding of the attitude of the participant.

The attitude of the participants toward the physician-patient relationship was measured using the Patient-Practitioner Orientation Scale.[18] It has a total of 18 items, divided into two domains Sharing (items no. 1, 4, 5, 8, 9, 10, 12, 15, and 18) and Caring (items no. 2, 3, 6, 7, 11, 13, 14, 16, and 17). Each item has a statement towards which the participant marks his/ her opinion based on a six-point Likert scale which includes strongly agree (score = 1), agree (score = 2), slightly agree (score = 3), slightly disagree (score = 4), disagree (score = 5) and strongly disagree (score = 6), except for item no. 9, 13 and 17 (reverse scoring). A higher score indicates an orientation toward patient-centeredness, whereas a lower score indicates a disease-centered approach. On the other hand, scores reflected in the sharing domain indicate the extent to which the respondent believes that practitioners and patients should share power and control, on a relatively equal basis. It also indicates the extent to which the practitioners share information with their patients.

Scores in the caring domain refer to the extent to which the respondents believe that caring about emotion and good interpersonal relations is a key aspect of the medical encounter. It also reflects how much the practitioners should care about the patient as a whole person rather than as a medical condition.

The scores obtained from PPOS are reported as mean score ± standard deviation. Categorical data were represented as numbers and percentages. Student t-test was used to compare the scores between various groups. A pp value of ≤ 0.05 was considered significant.

Sample Size Calculations

As studies on the perception of medical students on the physician-patient relationship were very scarce in India, taking the proportion of students having a patient-centered approach to be 50% at a confidence level of 95%, α is 0.05, and the critical value is 1.96, the sample size was calculated to be to 384. However, considering the paucity of time among postgraduates, and since the study employed a self-administered online questionnaire, the non-response rate was expected to be 25%. Adding the non-response rate, the calculated sample size was 564.

Results

The sampling frame consisted of the entire workforce of resident doctors and undergraduate medical students of the medical college, which was approximately a thousand undergraduates and post-graduates. Out of this, a total of 579 valid responses were obtained using an online survey. Demographics, future plans, first-degree relatives working in the healthcare sector, etc. of the participants are reported in Table 1.

Most of the participants were of or below the age of 25 years (83.4%, 483), and were still pursuing medical education as undergraduates, and most belonged to upper and upper-middle socioeconomic status. Only 28% (162) reported having a first-degree relative as a practising doctor, and most haven't yet decided on their future plan of practice. However, 20% (117) wanted to go for a government job. The majority of the participants (84.8%, 491) felt that there was a need for formal training on communication skills. 19.3% (112) of the participants had experienced abuse in some form while providing patient care.

Table 1.Demographic Characteristics of the Study Participants

Characteristics	Number of Participants	Percentage
Age (in years completed)		
≤ 25	483	83.4
> 25	96	16.6
Gender		
Male	374	64.6
Female	205	35.4
Course		
Postgraduate students	95	16.4
Interns	36	6.2
MBBS students	448	77.4
Modified Kuppuswamy SES category		
Upper (upper + upper middle)	494	85.3
Lower (lower middle + upper lower + lower)	85	14.7
First-degree relative a medical doctor		
Yes	162	28.0
No	417	72
Future plan		
Private practice (self-owned)	77	13.3
Private practice (job)	45	7.8

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Government job	117	20.2
Not yet decided	340	58.7
Formal training in medical education		
Yes	155	26.8
No	424	73.2
Experienced abuse while providing patient care services (physical, mental or verbal)		
Yes	112	19.3
No	467	80.7
Felt the need for formal training in communication skills		
Yes	491	84.8
No	88	15.2

The mean score obtained by the participants in the overall PPOS, as depicted in Table 2, was above 50% (3.58 out of 6; SD = 0.54). Scores obtained by participants in both sharing and caring domains were above 50%, with marginally better scores in caring (3.9 out of 6) as compared to sharing (3.06 out of 6).

Table 2.Mean Scores of the Participants in the PPOS Scale

Scale (Maximum Score)	Mean	Standard Deviation
Overall PPOS (maximum score 6)	3.48	0.541
Sharing score (maximum score 6)	3.06	0.649
Caring score (maximum score 6)	3.90	0.646

It was observed that older participants had better scores in the caring domain, while no such observation was made in the sharing domain (tTable 3). On the contrary, participants aged ≥ 31 years had lower scores in the sharing domain compared to other participants ($p < 0.001$). Overall, females scored better in both domains. Exposure to physical, mental, or verbal abuse while providing patient care services was found to be a significant factor for having higher scores in the caring domain. It was noted that participants with first-degree relatives who were healthcare professionals had significantly higher tendencies ($p = 0.036$) to share power and control during their interaction with patients.

Table 3.Univariate Analysis of the Mean Score

Characteristics	Caring	Sharing	Total PPOS
Age (in years completed)			
≤ 25	3.86 ± 0.63	3.05 ± 0.63	3.46 ± 0.52
> 25	4.13 ± 0.68	3.13 ± 0.75	3.63 ± 0.61
p value	0.001	0.255	0.004
Gender			
Male	3.83 ± 0.66	2.99 ± 0.62	3.41 ± 0.53
Female	4.05 ± 0.58	3.19 ± 0.68	3.62 ± 0.53
p value	0.001	0.001	0.001
Year of Study			
First year of MBBS	3.81 ± 0.56	3.07 ± 0.57	3.44 ± 0.46
Second year of MBBS	3.82 ± 0.66	3.11 ± 0.61	3.46 ± 0.56
Third year of MBBS	3.85 ± 0.69	2.92 ± 0.69	3.39 ± 0.56
Fourth year of MBBS	4.02 ± 0.69	3.14 ± 0.68	3.58 ± 0.59
Internship	4.0 ± 0.61	3.0 ± 0.58	3.50 ± 0.47
First-year postgraduate	4.23 ± 0.63	3.40 ± 0.74	3.81 ± 0.57
Second-year postgraduate	4.23 ± 0.42	3.07 ± 0.61	3.65 ± 0.40
Third-year postgraduate	4.01 ± 0.76	2.95 ± 0.79	3.48 ± 0.67
Course			
Postgraduate students	4.15 ± 0.64	3.16 ± 0.75	3.66 ± 0.59
Interns	4.00 ± 0.60	3.00 ± 0.58	3.50 ± 0.47
MBBS students	3.84 ± 0.64	3.05 ± 0.63	3.45 ± 0.53
p value	0.001	0.253	0.002
Branch			
Clinical	4.20 ± 0.70	3.16 ± 0.79	3.68 ± 0.65
Non-clinical	3.95 ± 0.52	3.14 ± 0.69	3.54 ± 0.49
p value	0.079	0.920	0.315
Kuppuswamy SES category			
Upper (upper + upper middle)	3.93 ± 0.64	3.08 ± 0.66	3.51 ± 0.543
Lower (lower middle + upper lower + lower)	3.75 ± 0.65	2.99 ± 0.61	3.37 ± 0.52

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p value	0.014	0.279	0.035
Is any of your first-degree relatives (mother, father, sister, brother, or spouse) a practising doctor?			
Yes	3.93 ± 0.64	2.97 ± 0.67	3.45 ± 0.55
No	3.89 ± 0.65	3.10 ± 0.64	3.50 ± 0.54
p value	0.531	0.036	0.378
Future plan			
Private practice (self-owned)	3.85 ± 0.71	3.04 ± 0.65	3.44 ± 0.60
Private practice (job)	4.11 ± 0.50	2.91 ± 0.62	3.51 ± 0.44
Government job	3.82 ± 0.61	3.04 ± 0.69	3.43 ± 0.53
p value	0.027	0.503	0.696
Have you ever attended any formal training on communication skills and ethical principles?			
Yes	3.88 ± 0.69	3.04 ± 0.65	3.46 ± 0.58
No	3.91 ± 0.63	3.07 ± 0.65	3.49 ± 0.53
Yes	4.04 ± 0.67	3.03 ± 0.72	3.53 ± 0.60
No	3.87 ± 0.65	3.07 ± 0.63	3.47 ± 0.53
p value	0.012	0.580	0.247
Do you feel the need for formal training on communication skills and ethical principles?			
Yes	3.92 ± 0.63	3.06 ± 0.65	3.49 ± 0.53
No	3.84 ± 0.70	3.07 ± 0.67	3.46 ± 0.60
p value	0.297	0.900	0.585

Figures 1–3 depict stacked histograms showing average scores in the PPOS in total, caring and sharing domains.

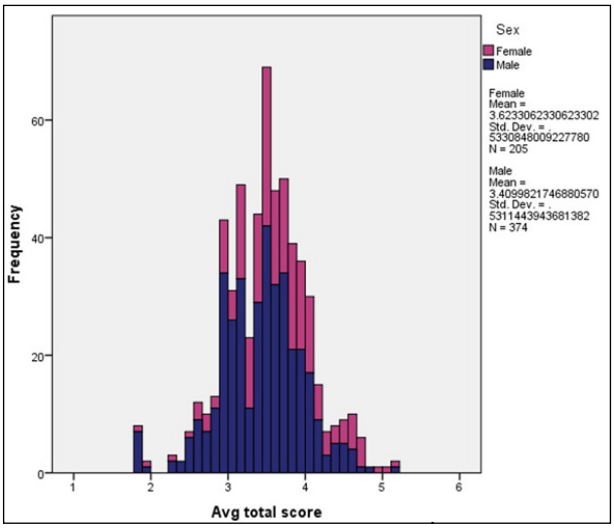

Figure 1.Stacked Histogram Depicting the Average Total Scores Among the Participants

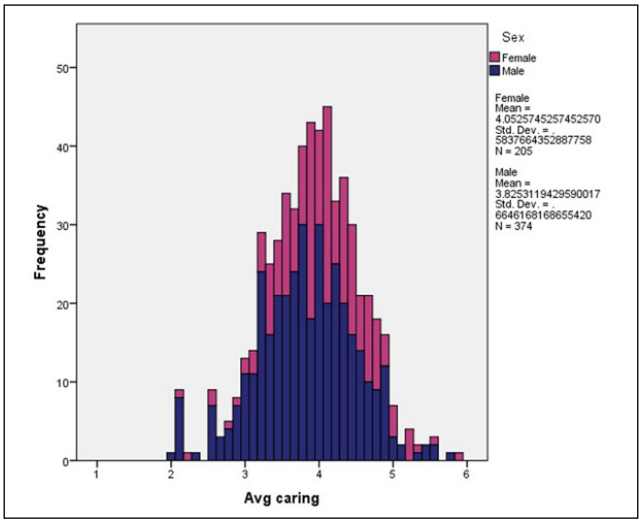

Figure 2.Stacked Histogram Depicting the Average Caring Scores Among the Participants

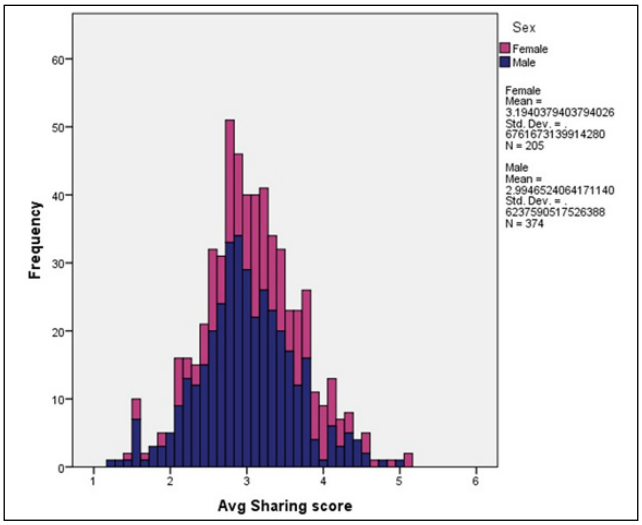

Figure 3.Stacked Histogram Depicting the Average Sharing Scores Among the Participants

Discussion

With the advancements in medicine and the increase in the number of doctors in the past few decades, though medical knowledge still enjoys its limelight in the healthcare sector, the importance of transparency of decision-making and empathy towards the patient party has risen in this age of consumerism. As the Working Party of the Royal College of Physicians has stated, "Medicine concerns the experiences, feelings, and interpretations of human beings in often extraordinary moments of fear, anxiety, and doubt. In this extremely vulnerable position, it is medical professionalism that underpins the trust the public has in doctors"[16], and hence the importance of acquiring these values during medical training.

In this study, low patient-centeredness, with a higher inclination to care for patients' emotions, was observed as

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an essential aspect of PPR among the caregivers. Further, sharing decision-making powers and transparency was also found to influence the complex relationship between the patient and the caregiver. The scores of the PPOS questionnaire obtained in our study were lower than similar studies done in Saudi Arabia[4], USA (in medical students)[20], Sweden[21], Brazil[22], Canada (in Chiropractors)[23], China[24], South Korea[25], UK (in Dental Students)[26], Western Africa[27] and Nepal[28], but were higher than that of studies conducted in Pakistan[29] and India (in Dental Students).[30]

Nearly a fifth of the participants experienced violence from the patients/ patients' families. A study conducted among doctors in another tertiary healthcare centre in Delhi revealed that 40.8% of their participants faced similar issues. "Poor communication skill" on the part of the caregivers was found to be the most common determinant of workplace violence. Other highlighted determinants include a shortage of physical resources and high work pressure, especially in a government-operated healthcare setup.[31]

It was also noted that a higher rate of violence was prevalent in emergency scenarios. Participants who have experienced violence had better caring scores, which were statistically significant. However, they had statistically non-significant poor scores in the sharing domain.

This probably suggests that providing more attention and care to the patient can tackle aggression better rather than sharing information about grave diagnoses with the patient party. Participants from the senior batches of MBBS had higher scores than those from the younger batches. Similar results were also reported in other studies conducted in Brazil[22], but a survey conducted by Balentine et al. among surgical students revealed that the participants stayed patient-centred throughout their training.[20] Similar results were noted in a study conducted in Sweden by Wahlqvist et al.[21] Higher scores were also recorded in post-graduates. A fall in the scores in the last year of their PG course was noted, whose cause can be explored in subsequent studies. Higher scores in the PPOS questionnaire have been noted in the initial years of undergraduate MBBS students in various studies. In another study by Rosewilliam Set al.[32], participants who had more numbers and longer duration of patient contact were less patient-oriented, which connected with a lack of role models, support from their guides, and the effect of a "hidden curriculum". A more goal-oriented approach to patient care was associated with lower scores on the PPOS.[33]

A statistically non-significant difference was noted between participants who felt the need for further training in communication skills and ethical principles. In a study conducted by Makoul et al., it was pointed out that doctors tend to overestimate their abilities for patient interaction.[33]

Female participants in this study had significantly higher scores in both the domains of the PPOS, which is coherent with studies in Brazil, Canada (in Chiropractors), China, and Korea,[22–25] but studies conducted in the USA (students of surgery), Saudi Arabia, UK (on students pursuing dentistry) showed no significant difference based on gender.[4, 20, 26] It may be because this difference was bridged after giving the participants a seminar on communication skills, as seen in an English study.[32]

Participants with healthcare professionals as their first-degree relatives had significantly lower scores in the sharing domain, whereas a study conducted among 1st-year dental students in India revealed higher total scores in such participants.[30] No such differences were noted in surveys conducted in Canada or China, where the effect of doctors as parents was studied.

In this study, a significant difference was noted in the total and caring scores based on Socioeconomic status. In an investigation by Ribero et al. in Brazil, it was reported that participants from lower-income strata had a significantly higher patient-centred approach.[22]

Limitations

The medical college has started Communication workshops for interns since 2018 and orientation sessions on communication[34] therefore being a cross-sectional study, the effect of a communications workshop on the participants cannot be ruled out. However, this workshop is conducted during the internship. So, most of the participants, who were undergraduate medical students, were not trained in this course. Though our sample size was adequate, being an online survey, a relatively low response rate was observed. This might have led to making the sample non-representative, hence not depicting a clear picture of the actual status of patient-centeredness in the sampling frame. The generalisation of findings is also affected by study settings which are confined to only one tertiary-care center in South Delhi.

Recommendations

Training of medical undergraduate and postgraduate students through seminars and structured symposiums, targeted at improving the doctor-patient relationship, should be conducted at regular intervals to improve their attitude towards developing a good doctor-patient relationship. One such method adopted by our institution was the implementation of a communications workshop. Further, as per the guidelines issued by the National Medical Council, the doctor-patient relationship is taught to medical undergraduates in the AETCOM module, when they have almost no exposure to patients. Making a communications workshop mandatory in the internship, which could be conducted by the Community Medicine Department of the

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respective institution, will allow them to develop a better doctor-patient relationship in the early years of their career.

Conclusion

This study found that the patient-provider orientation scores were low among healthcare professionals working in a tertiary hospital in Delhi. Females had better patient-provider orientation, while most of the participants felt there was a need for formal training in improving this, in the form of a communications workshop. Apart from being a great learning opportunity for those conducting the study, this study aims to assess the attitude/ perception of medical students towards the doctor-patient relationship and also to spread awareness about the same among the study group.

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Conflict of Interest: None

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