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A Study of Patient-Centered Communication in the Indian Healthcare System

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Abstract

Background: The current study has the twin objectives of understanding the perception of patient centered communication (PCC) in the lesser developed areas of India with special reference to various demographic characteristics and examine the problems in its implementation.
Purpose: The purpose of the study is to investigate the usefulness of patient centered communication in Indian healthcare system which deals with a large illiterate population base.
Method: Based on 308 responses from state of Uttar Pradesh, India the PCC was measured using an 18 item Patient-Practitioner Orientation Scale (PPOS). A self-reported questionnaire was administered to elicit demographic details. Data collection was done over various places and at frequent time intervals. The hypothesis and relationships were tested using SPSS and different statistical tests.
Results: There was receptiveness among Indian patients as far as patient centered communication was concerned. Most of the items showed the patient eccentricity to be high. Demographically, age and income had no role in sharing and caring while significant difference with respect to PCC was found based on gender and disease type. Empathic communication can be made an important component of the Indian medical curriculum.
Practice implication: Trainings need to be provided to medical practitioners, particularly in Indian government hospitals, highlighting patient centered communication and its benefits in medical practice

Key words: Patient-centered communication, PPOS, Sharing, Caring, India

Introduction

Traditionally, doctors and healthcare professionals have been responsible for health-related treatments, but recently, it has become clear that patients have an integral role in diagnosing diseases and their subsequent treatment. With patients' involvement, circumstances are better understood, and patient care becomes easier.

Communication sets an essential foundation for establishing trust. Effective Doctor-patient communication is a central clinical function in building a therapeutic doctor-patient relationship, which is the heart and art of medicine. (Ha, J. F., & Longnecker, N.,2010). Although the individual traits of patients do matter (Murante et al., 2014), this active role can be achieved using patient-centred Communication (Naughton, 2018). The patient centred Communication (PCC) is a relatively new term in literature and refers to six elements of relationship building, collecting and disseminating information, decision making, emotional connection and treatment (Epstein et al., 2005). PCC revolves around the twin characteristics of a patient's perception of his disease and the empathetic approach of the physician (Hashim, 2017). Furthermore, the perception of patients regarding the quality of health care service was directly related to the patient's active role in the treatment, and PCC was found to be a moderator in this relationship (Xiang & Stanley, 2017).
PCC was positively associated with both patients' trust in healthcare providers and evaluation of healthcare quality. The healthcare system has suffered from severe tension between patients and doctors. Patient-centred Communication (PCC) significantly mitigated this problem (Jiang, S.,2019). Failures between clinicians are the most common primary cause of errors and adverse events in healthcare. Communication is a significant factor in patient care. (Kupiiers et.al.2019). PCC not only take care of emotional well-being but also other health outcomes like quality of life and preventative care

engagement (Nichols et.al.,2021). Patient-centred care is correlated significantly with patient's physical well-being, social well-being, and satisfaction with care (Hong & Oh, 2020).

Effective physician-patient Communication is fundamental to the process and delivery of quality healthcare. (Miller, T. A., & DiMatteo, M. R., 2020). PCC was reported to have an influence, both direct and indirect, on the emotional well-being of patients. This relationship was mediated partially by the satisfaction levels and how well patients managed emotions. This proves the importance of effective Communication in the treatment and provides valuable insights for devising ways to enhance patients' emotional well-being levels (Jiang & Men, 2017). Most studies emphasize doctor-patient Communication as an upcoming area of research concerning the patient's perception of the physician (Beach et al, 2006). The role of empathy in patient care is the most vital human aspect and has been highlighted often (Hojat et al., 2017). Empathy has been called "a royal road to treatment" (Linn et al., 1987), symbolic of the best thing that can happen in health care (Larson & Jao, 2005) as well as a significant aspect of medical professional attitude (Veloski, & Hojat, 2006). Thus, empathy was found to aid in complying with standards and providing desired outcomes with fewer side effects (Hojat, 2016). It leads to better treatment and positive results among diabetic patients, as found in a study conducted in Italy (Del Canale et al., 2012). Another distinct advantage was decreased levels of distress (Hojat et al., 2011). One issue that arises is whether PCC has a universal connotation or differs from country to country. Another question is whether demographic features like age, gender and income have a role to play in this.
There is very little or no information reported concerning the Indian patients, physicians and other healthcare professionals with respect to the PCC. Most Indian states are developing or underdeveloped, and multiple factors delay the implementation of PCC. The current study has twin objectives: (1) Understanding the perception of PCC in interactions between patients and physicians in the lesser developed areas of India with special reference to various demographic characteristics and (2) Examining the problems in its implementation in the country.
Therefore, the study aims to understand the importance of patient-centred Communication and care in the Indian scenario. The study is divided into three sections. The first section covers an extensive review of the literature and gap identification. The second section covers the theoretical framework and hypothesis development. The third section covers the analysis and results.

Literature Review
The treatment as a whole, therapy choice and overall care are significantly affected by Patient-centered communication (Maatouk-Bürmann, 2016). It aims to involve the patients in the decision-making related to treatment (Sarri et al., 2021). According to a study conducted in China (Sun et al., 2017), the implementation of PCC was found to have a number of problems that included the hostile attitude of doctors, massive work pressure, the fact they did not appreciate the importance of proper Communication with patients as well as the latter having little knowledge of medical procedures. Health information technology enables Patient-centered Communication. (Lila et.al.,2014). Digital communication tools facilitate more accessible Communication (Finny Reuten,2014). PCC enables shared decision-making, improving patient satisfaction, treatment adherence and health outcomes. (Krista Suojanen et.al.,2018).

The respectful behaviour of doctors towards their patients elicits positive reactions from their side that help in the treatment process (Beach et al., 2006). When the focus was more on the patients, it was reported that it was positively related to patient-centred Communication (Street et al., 2007). It was also found that reactions from one patient concerning the physician's communication style had a cascading effect on other patients who had similar attitudes towards the doctor (Street et al., 2009), thus revealing the importance of PCC in treatment and diagnosis. Jiang S. (2019) found that PCC predicted patient satisfaction, trust, and self-reported outcomes but did not directly influence health. Totzkay D. et al. (2017) found that PCC and electronic health records facilitate patients' ability to care for their health, but only under certain circumstances.
The socio-demographic characteristics were also found to have an effect on patients (Van Ryn & Burke, 2000) as well as physicians (Street et al., 2007). The socioeconomic conditions of a patient were reported to have an effect on the doctor's impression of the patient's personal characteristics, behaviour, attitude and overall personality assessment (Hwang et al., 2011). In addition, ethnicity was found to be significantly related to the doctor's perception of risk-taking patterns and levels of understanding among patients, overall connection with them and their assessment of whether the patient would comply with the guidelines provided during treatment (Van Ryn & Burke, 2000).
Studies provide evidence of the importance of communication in this field (Teutsch, 2003; Maatouk-Bürmann, 2016; Leonard, 2017; Tates et al., 2017; Ward, 2018). When appropriate communication occurs between the patients and doctors, it has an overall effect that includes good patient care, proper diagnosis and the requisite treatment and helps build up a patient-centric attitude (Maatouk-Bürmann, 2016; Epstein et al., 2017). Once the doctor is able to appreciate the effect his communication style has, it can go a long way in enhancing his ability to treat patients to their satisfaction (Leonard, 2017). A patient-centric approach and good and proper communication further lead to patient satisfaction. Therefore, these patient-centric Communication skills are more critical than data management (Street et al., 2014). Patient-centric Communication (PCC) also leads to proper compliance with treatment guidelines, provides enhanced treatment results, and improves

patients' perception of healthcare services. (Ward, 2018). Thus, good Communication is central to a physician's practice, and these skills can be inculcated if proper training is given. This communications-related training can be imparted through various techniques. (Leonard, 2017) and evaluated for their effectiveness (Kasper et al., 2017). One contemporary trend to enhance the effectiveness level of training is having the right mix of on-the-job and off-the-job methods carried out using an e-learning platform to benefit as many people as possible (Dalma et al., 2020). PCC blended with technology can also lead to better outcomes (Rathert et al., 2017).

Theoretical Framework & Hypothesis

The ecological theory of patient-centred Communication (Street et al., 2009) is central to the current study. According to the theory, joint decisions between doctors and their patients are affected by the communication between them, and this joint decision-making helps the doctor diagnose and prescribe treatments that provide more positive outcomes for the entire process (Street et al., 2009). This theory has been expanded to include day-to-day communication in the medical profession (Head & Bute, 2018). The theory has been used to explain and evaluate PCC in Indonesia (Kurniawati et al., 2020), the relationship between black patients and non-black physicians in the US (Otto et al., 2021), and to discuss the end-of-life decisions in Taiwan (Fan & Hsieh, 2020). It has also been used to study obese adolescent children in Canada (Kebbe et al., 2020) and people with mental health issues in China (Nieforth & Craig, 2020). In the Indian context, this theory can explain the interaction between patients and doctors. Since gender segregation is quite high and mixing is not very frequent, the perceptions and attitudes of males and females have been reported to be different for various people, places and even concepts, clinical settings being no exception. Thus, doctors may be less open to patients of the other gender, and decision-making may be limited.

Similarly, income disparity is quite high in the country, which may influence the interaction with doctors and Communication with them as the richer section of the society may come with an impression of having "bought more time" and consequently being more communicative. Yet another aspect could be the nature of disease as acute illnesses may be more informed about their disease and eager to interact with doctors on a different level (having more knowledge about the medical conditions) as compared to patients who come to doctors with chronic or general complaints. Thus, it can be hypothesized:

H1: There is a difference between males and females concerning patient centered communication and interaction

H2: There is a difference between different age groups and income levels concerning patient-centred communication and interaction

H3: There is a difference between people suffering from the type of disease concerning patient-centred communication and interaction

Methods

The current study was conducted in Lucknow, the capital of Uttar Pradesh, India, which is considered one of India's most backwards states. The quantitative section of the study is based on one of the versions of the Patient-Practitioner Orientation Scale, commonly known as PPOS. PCC was measured using a scale that had 18 items. The original PPO scale is six-pointed, with one standing for strongly agree and indicating physician centricity and 6 implying strongly disagree and pointing towards patient centricity) designed by Krupat et al. (2000) and validated in recent studies (Bellon-Harn, 2017; Ardenghi et al., 2019; Perestelo-Pérez, 2021). However, the current study used a seven-point scale wherein a neutral rating of 4 was also introduced. A self-reported questionnaire was administered to elicit information from the participants regarding their education, gender, and age.

Data collection was done over various places and at frequent time intervals. The researchers were able to collect 308 usable responses. The males formed 71.8% of the sample, while females were 28.2%. The age of the sample was between 20 and 65 years, where 40.26% were aged up to 25, 5.52% were between 26 and 35, 36.04% were in the 36-45 years group, 9.74% were between 46 and 55 years, and the remaining 8.44% were over 60 years old. 85.06 % of the respondents suffered from acute ailments, while the remaining 14.94% had other chronic diseases or general complaints. An interview based on a list of questions covered the vital points of the current study. An example of a question asked is, "What did you think of your physician's communication style during your visit?" Each interview was recorded, and the average duration was 10 minutes.

Results

The data were initially analyzed to determine the overall approach of the respondents. This was done by conducting descriptive statistical tests (mean and standard deviation) on each question, and the results can be seen in Table 1. Since a seven-point scale was used, the respondents with an overall mean of 4.39 have a moderate attitude concerning patient-centred communication. There were 18 statements, of which 10 were rated high on patient-centric items. At the same time, seven were either exactly or extremely close to the middle point, indicating both doctor and patient-centricity. Only one item was rated as doctor-centric, including personal characteristics like friendliness. The subscale of sharing showed a mean of 4.52 with an average SD value of 1.94, while the mean value of caring was 4.29 with an SD of 1.82. The statistically significant different scores indicate respondents are inclined towards the caring attitude of the doctor rather than the sharing one. Overall, an analysis of the data shows that Indian patients are pretty receptive to patient-centered Communication.

Moving further, the hypotheses were tested by conducting t-tests and ANOVA. The results are reported in Table 2. There was a significant difference between males and females concerning patient-centric Communication ($p< 0.05$), with males ranking higher on caring (Mean 4.32 +/- 2.09) as compared to females (mean=4.19 +/- 2.16) while for sharing the mean scores of females (5.63 +/- 1.76) was higher than the mean scores of males (5.59 +/-1.60). Thus, H1 can be accepted.

H1: There is a difference between males and females concerning patient centered Communication and interaction

However, when the ANOVA test was conducted, no significant difference was found between the overall obtained score and age groups ($p > 0.05$) on one hand and income groups on the other (Student's t-test, $p = 0.001$). The results, as well as caring and sharing mean scores, can be seen in Tables 3 and 3a. Thus, hypothesis 2 is rejected, and the null hypothesis H02 is accepted.

H02: There is no difference between different age groups and income levels concerning patient-centred communication and interaction

Moreover, a significant difference was also noted between the type of disease and mean scores obtained ($p<0.05$) when the test was conducted, and the results can be seen in Table 4. The analysis suggests patients with terminal disease were ranked higher (mean=5.66 +/-1.62) than those with chronic, general problems (mean=5.29 +/-1.80). While patients with chronic diseases were more concerned with caring, those with general issues were more on the sharing side. Thus hypothesis H3 is accepted.

H3: There is a difference between people suffering from the type of disease concerning patient-centred communication and interaction

The in-depth interviews helped to understand the patients' main demands from the physicians. First, almost all the participants complained that the length of their consultation with the physician during the visit was insufficient except for the first visit. The time limitation constraint is due to more patients around the physician. Secondly, educated patients seem more satisfied with their physician as they feel the doctor knows much better than them and gives complete control of communication to physicians. The educated class of patients has many expectations from the physician regarding PCC's sharing and caring aspects. However, they do feel that the physician should control the exchange of information required for the diagnosis and treatmenregarding patient centred Communicationand high cost of treatment prescribed is also observed among the educated class of patients.

Discussion

An analysis of the data obtained reflected certain major points. As per the survey, there was receptiveness among Indian patients as far as patient-centred communication communication was concerned. Most of the items showed a patient's eccentricity to be high. Even when it was doctor-centric, it was all about the firmest manner and the level of comfort of the patient, which was obtained through a doctor's attitude. This shows that Indians wish doctors to be empathetic and listen to patients, keeping their communication by the latter. The high scores on an examination more than talk and reassurance from the doctor further support this. Additionally, the patients were dissatisfied with the time given to them by the doctor. Interestingly, they claimed enough attention and time was given in the first visit, but this declined in the subsequent visits. This can be attributed to two things: firstly, with a vast population low on literacy, the ratio of doctors to patients is relatively low. That is, one doctor may have many patients to attend to, thus putting a time limit per patient; secondly, the doctors, with their expertise, might gather all information in the first visit itself, taking enough time. The subsequent visits might be to check on the improvements (or problems) he has already diagnosed, giving the impression that enough time has not been given. The patient shall compare the duration of the first visit with the next one and find lesser attention.

It was found that males wanted a more caring attitude while females wished to go for information sharing. This can be explained through Indian culture, where segregation based on gender is quite sharp, and the mixing of males and females is still quite restricted. With most doctors being males, the men enjoy a better bonding and expect a caring attitude. On the other hand, females, being uncomfortable, look for more information and updates on their conditions, and trust level is low with the doctor being of the opposite gender. Similarly, the nature of the disease also affected patient-centred communication. Those with chronic diseases were much more receptive to patient-centred communication than those with general issues. The chronic disease patients are looking for more care, already having a feeling of suffering. Among Indians, there is a tendency for self-medication and affinity for alternate medical solutions. There are strong possibilities that such patients may obtain additional information and try medication through the advice of others. Their visit to doctors may be to seek comfort in their improving conditions. On the other hand, patients with general diseases may not be frequent visitors and may be interested in more information as this is a one-off situation.

Demographically, there was no difference among Indians on the basis of age groups and income levels. This is a surprise in this study as the generation gap is quite evident among the Indians, and the older ones, frequent visitors to doctors, should be more concerned about the caring attitude. However, this can be explained by the tech-savvy attitude of the younger Indians. Before visiting a doctor, they obtain all relevant information online and focus more on a caring attitude. This makes their perceptions towards patient-centred communication the same as those of elders.

Another critical point is the cost involved and the feeling of being over-treated, especially by educating Indians. This finding is similar to one reported in a study from China (Chung et al., 2009). While people with low literacy may unquestioningly believe the doctor, educated ones may try to find out and research independently. Any deviation in

treatment from their own understanding might lead to further speculation of wrong treatment, increasing the costs. Thus, feedback from the patients and active listening to them might help reduce this problem.
The data also showed an almost equal consideration between sharing and caring. Indian patients wish doctors to be friendly in their attitude, treat them with respect and understand their evident and non-evident problems. While expressing a desire for information and awareness, Indians must not want to make joint decisions with the doctor. While critical, the patients expect the doctors to decide on treatment and allied issues. This has been found to be the case in major parts of the globe seriously hampered (Sarri et al., 2021) with no evidence of patient involvement in the treatment process. However, the situation in this aspect was improving in the Czech Republic due to the institutionalization of reforms concerning patient care. In India, cultural differences focusing on giving divine reverence to doctors and literacy levels may contribute to low levels of patient involvement. There are many case studies on implementing PCC and deriving its benefits globally. The commitment to train the medical staff for successful execution can improve health outcomes.

Conclusion

Engaging patients in communication regarding their health care offers better dividends. It is mutual decision-making between healthcare professionals and patients. The findings of the study have certain important implications that can be considered. Patients are receptive to proper communication. This empathic communication can be made an important component of the Indian medical curriculum. Training must be provided to medical practitioners, particularly in government hospitals, highlighting patient-centred communication and its benefits in medical practice. Healthcare infrastructure can be revamped, keeping PCC at the core and automatically enhancing services in this core sector. Confidence-building measures among patients are a must given their expectations from the doctors, and treatment costs must be capped in overcoming healthcare settings that practice patient-centred Communication. There is a need to discourse culturally sensitively about the many structural obstacles in designing and lamenting PCC policies. This is crucial in safeguarding the sustainable and effective implementation of PCC approaches in low- and middle-income contexts.
The future scope of the study is to identify the difference between the healthcare set ups practicing patient centered CommunicationCommunication as core of their health service and satisfaction level of patients compared to those who have not practiced PCC as core of their practice.

TABLE 1: PPOS Scale Scores

Item	Mean	SD	Dimension	Overall Approach
I want the doctor to decide what we talk about in the consultation.	5.45	1.66	S	P
2-It is more important that the doctor uses the latest tests and medicines than takes a personal interest in me.	5.61	1.65	C	P
3- It is more important that the doctor physically examines me than talks with me about my health.	5.61	1.52	C	P
4- It is often better for me if I do not have a full explanation of my medical condition.	3.00	2.08	S	D/P
5- I should rely on the doctor's knowledge and not try to find out about my condition on my own.	5.00	2.19	S	P
6- If the doctor asks lots of questions about my background, he is trying too much into personal matters.	3.54	1.92	C	D/P
7- If the doctor is truly good at diagnosis and treatment, the way he or she relates to me is not very important.	5.10	1.92	C	P
8- Many patients ask too many questions even when the doctor has already explained things.	5.57	1.39	C	P
9- The doctor should treat me as a partner, equal in power and status.	3.33	2.02	S	D/P
10- I prefer to get reassurance about my health rather than information.	5.16	1.86	S	P
11- If the doctor mainly relies on being open and warm, the doctor will not have a lot of success.	3.52	2.09	C	D/P
12- If I disagree with the doctor, this is a sign that I do not respect and trust the doctor.	3.60	2.21	S	D/P
13- A treatment plan cannot succeed if it is in conflict with my lifestyle or values.	3.42	1.98	C	D/P

14- I want to get in and out of the doctor's office as quickly as possible.	3.98	2.21	C	D/P
15- The patient must always be aware that the doctor is in charge.	5.51	1.52	S	P
16- The doctor does not need to know my culture and background in order to treat my illness.	4.16	1.92	C	P
17- The doctor's friendly manner or sense of humor is an important part of the way that he or she treats me.	2.40	1.55	C	D
18- If I look for medical information on my own, this usually confuses more than it helps.	5.10	1.98	S	P

In dimension, C = Caring, S = Sharing. In overall approach D refers to doctor centric and P to patient centric, D/P means a mix.

Table 2: Mean Scores for Gender

Gender	Mean Total+/- SD	Care Mean+/- SD	Share Mean+/- SD	p (Sig.)
Total	4.39 (2.14)	4.29 (2.11)	4.51(2.17)	0.01
Male	5.59(1.60)	4.32(2.09)	5.59(1.60)	
Female	5.63(1.76)	4.19(2.16)	5.63(1.76)	

Table 3: ANOVA for Age and Income

Demographic Variables	**ANOVA Results**				
Income					
Source of Variation	SS	df	MS	F	p
Between Groups	0.51	2	0.26	0.21	0.82
Within Groups	64.81	51	1.27		
Total	65.32	53			
Age					
Source of Variation	SS	df	MS	F	p
Between Groups	3.72	4	0.93	0.73	0.58
Within Groups	44.40	35	1.27		
Total	48.12	39			

Table 3a: Mean Score for Age and Income

Income	Mean Total+/- SD	Care Mean+/- SD	Share Mean+/- SD
Level-1 Low	4.43(2.14)	4.43(2.15)	4.43(2.13)
Level-2 Medium	4.56(2.18)	4.23(2.23)	4.98(2.06)
Level-3 High	4.32(2.13)	4.22(2.06)	4.45(2.19)
Age			
0-25 yrs.	4.47 (2.16)	4.37(2.04)	4.46(2.07)
26-35	4.34 (2.08)	4.08(2.13)	4.41(2.06)
36-45	4.22 (2.15)	4.2792.18)	4.56(2.30)
46-55	4.56 (2.20)	3.81(2.12)	4.21(2.32)
>55 yrs.	4.66 (1.96)	4.73(2.01)	5.11(1.77)

Table 4: Mean Score for Disease Type

Disease Type	Mean Total+/- SD	Care Mean+/- SD	Share Mean+/- SD	p (Sig.)
Acute	4.35(2.14)	4.25(2.12)	4.5(2.17)	0.03
Chronic	4.54(2.27)	4.43(2.23)	4.19(2.33)	
General ailment	4.6691.95)	4.61(1.89)	4.52(2.03)	

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