Determinants of communication dynamics on doctor-patient interactions: a descriptive cross-sectional investigation

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ABSTRACT

Introduction: Communication dynamics in doctor-patient relationships are vital for improving patient outcomes, with effective communication fostering clear understanding, information gathering, and compassionate relationships. Studies highlight that physician communication skills lead to earlier problem detection, better outcomes, higher satisfaction, and improved adherence to treatment plans. While factors like patient demographics, doctor characteristics, and environmental influences affect doctor-patient communication, research is limited, especially in the context of rising violence against doctors and legal challenges.

Objectives: Our study aimed to evaluate patients' perceptions and identify the determinants associated with negative perceptions of communication dynamics in doctor-patient interactions.

Methods: The community-based cross-sectional study included 230 participants (≥18 years) selected via simple random sampling and was conducted in Angadipuram panchayat, North Kerala, India. A pre-tested validated questionnaire collected socio-demographic data, DPC effectiveness, and influencing factors. Data were analyzed using SPSS 26, with chi-square tests for bivariate analysis ($p \leq 0.05$).

Results: Our study found that 61.3% (n=141) of participants reported positive doctor-patient interactions, with 75.3% (n=55) aged 31-45 years reporting good communication and 86.9% (n=106) of females expressing higher satisfaction levels (p=0.001). Attentive listening and involvement in decision-making (p=0.001) positively influenced DPC, while factors like religious/cultural influences (p=0.001), high fees (p=0.0001), and rude staff behaviour (p=0.0001) were linked to poorer communication experiences.

Conclusion: Our study emphasized that doctor-patient communication was shaped by various demographic and contextual factors. While many participants reported positive interactions, challenges such as religious/cultural influences, high fees, and staff rudeness pose significant barriers, emphasizing the need for patient-centered communication strategies to improve healthcare quality and satisfaction.

Keywords: Doctor-patient relationship, Doctor-patient communication, Doctor-patient, Effective communication, Communication skills

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Conflict of interest:

INTRODUCTION

Communication dynamics is a multifaceted concept that includes various factors shaping the processes and interactions between individuals. At its core, communication is an ongoing process involving three primary components: the sender, the message, and the receiver. Communication dynamics involve continuously evaluating whether the message has been accurately understood. According to studies conducted worldwide, these dynamics play a crucial role in doctor-patient interactions, where effective communication can significantly influence patient outcomes. Furthermore, the quality of these interactions is often determined by how well doctors and patients navigate these communication elements. [1, 2] Effective doctor-patient communication is essential in medicine, enabling accurate diagnosis, informed counselling, clear therapeutic instructions, and the development of empathetic patient relationships. These advanced communication skills are crucial for optimal patient outcomes and satisfaction. However, communication skills alone are inadequate for building successful therapeutic relationships. [2, 3] Interpersonal skills, extending beyond basic communication, are vital for establishing shared understanding of the problem, treatment goals, and psychosocial support. The goal of doctor-patient communication is to improve patient health and care. However, while many doctors believe their communication is sufficient, studies show patient dissatisfaction, highlighting a gap between perceived and actual communication effectiveness. Patient-centered medicine, rooted in ancient principles yet not always historically practiced, has evolved from paternalism to individualism, now emphasizing shared decision-making and patient-centered communication as the prevailing model. [2-4]

Doctor-patient communication (DPC) is fundamental in healthcare, rooted in the respect and influence doctors hold, as Hippocrates emphasized. Effective communication motivates, reassures, and supports patients while strengthening the doctor-patient relationship, boosting job satisfaction, and enhancing patients' confidence, motivation, and outlook on their health. Contrary to popular belief, most complaints about doctor's stem from communication issues rather than clinical competency, emphasizing the importance patients place on effective communication alongside skillful diagnosis and treatment. [5,6] Physicians with strong communication and interpersonal skills can detect issues early, preventing medical crises and costly interventions, while offering essential patient support. This leads to better outcomes, higher satisfaction, reduced care costs, improved patient understanding, and greater adherence to treatment plans. Modern healthcare prioritizes collaborative decision-making, where physicians and patients work together as partners to achieve shared goals and improve quality of life. [5-7]

Several studies, including those by Amandeep Singh and Swastika Chandra, have shown that effective doctor-patient communication leads to greater patient satisfaction, better treatment adherence, improved mental health, and enhanced psychological adjustment, especially in challenging situations like poor prognosis. Evaluating communication skills in doctors is essential for boosting healthcare quality, as strong doctor-patient communication enhances satisfaction, understanding of health issues, and provides critical support and reassurance. [8, 9] Some studies have identified factors affecting DPC, including patient sociodemographic, doctor's physical characteristics and behaviour, and environmental factors like waiting time, OPD convenience, and staff behaviour. Despite its significance, research on this topic remains relatively sparse, even as issues such as violence against doctors and associated legal challenges continue to escalate nationwide. Hence, the primary aim of our study was to explore the effectiveness of DPC by evaluating patients' perceptions and identifying the determinants associated with poor perceptions of communication dynamics in doctor-patient interactions.

2. METHODOLOGY

This descriptive, community-based, cross-sectional study was conducted in a rural field practice region associated with a tertiary healthcare institution in Northern Kerala, India. Data were gathered over a

three-month duration, from January to March 2021. The study population comprised individuals aged 18 years and older residing in the specified rural practice area of the tertiary care center. Based on a study conducted by Chandra and Mohammmadnezhad (2021), the sample size was estimated using the formula $4pq/d^2$, where p is prevalence and d is precision, the target confidence level was 95% and the relative precision was 8%. (9) In the suggested study, good doctor-patient communication was reported by 45.6% of study participants. The formulas calculated a minimum sample size of 155. Anticipating a 45-50% non-response rate, the sample size was increased to 230 to account for this. Simple random sampling was utilized to recruit participants from the local community for the study.

We identified 468 households from our field practice area and assigned a unique number to each household, ranging from 1 to 468. Using a random number generator, we selected 230 unique numbers corresponding to the households to ensure that each household has an equal chance of being chosen. The study participants were individuals aged 18 years and above, selected during a house-to-house survey. In households with multiple eligible individuals, we interviewed the oldest available adult willing to participate. Inclusion criteria required participants to have had at least one contact with a doctor in the past year. Exclusion criteria included those with severe illness or disability that prevented participation and individuals who were away or unavailable during the survey period. The data collection process involved conducting face-to-face interviews using a pre-designed and pretested questionnaire. We validated the tool by conducting a pilot study on 10% of the participants. Based on the findings, we made necessary adjustments to improve its clarity and reliability. The DPC Questionnaire used in the study is an internationally validated instrument. [10] This questionnaire served as the primary tool for data collection and was structured into three distinct sections. The initial section aimed at capturing the socio-demographic profiles of the participants. Subsequently, the second section comprised a 15-item validated DPC Questionnaire, which assessed the effectiveness of doctor-patient communication. Lastly, the third section delved into exploring the various factors influencing doctor-patient interactions.

The Doctor-Patient Communication (DPC) scale comprises 15 items designed to assess the effectiveness of communication, with response options ranging from "no" to "yes," rated on a Likert-type scale of 1 to 4 points for each item. The total score ranged from 15 to 60, with scores equal to or greater than 45 indicatives of good and effective communication, while scores below 45 suggest weaker communication skills. The cutoff value of 45 was determined from the pilot study results. [10] The collected data were expressed as percentages and cross-tabulated for selected determinants. Version 26 of the SPSS software was used for the analysis. Where applicable, Fisher exact (when any expected cell frequency in a contingency table is below 5) and chi-square values were generated for bivariate analysis, and a p-value of less than 0.05 was regarded as statistically significant.

Before participating, all study participants were assured of confidentiality and anonymity, with their involvement being voluntary, and written informed consent was obtained. The study received approval from the Institutional Ethics Sub Committee under the Community Medicine Department (STUDENT/IEC/4/2021) at MES Medical College, Perinthalmanna, Kerala, India.

3. RESULTS
3.1. Sociodemographic features (n=230)
Our study achieved a 100% response rate, ensuring comprehensive participation. The majority of study participants fell within the age bracket of 31-60 years with 53% (n=122) being females. Additionally, a majority proportion (71.3%, n=164) was identified as Muslim in terms of religion. Regarding educational attainment, the majority (59.1%, n=136), had not completed higher secondary schooling. Furthermore, a notable proportion (85.2%, n=196) occupied lower occupational statuses. However, despite these demographics, 59.1% (n=136) of participants were classified as above the poverty line. (Table -1)

Table 1: Sociodemographic details (n=230)

No	Socio demographic variable	Frequency (n)	Percentage (%)
1	**Age group**		
	18-30 years	61	26.5
	31-45 years	73	31.7
	46-60 years	75	32.6
	>60 years	21	9.1
2	**Gender**		
	Male	108	47
	Female	122	53
3	**Religion**		
	Christian	2	0.9
	Hindu	64	27.8
	Muslim	164	71.3
4	**Type of family**		
	Nuclear	179	77.8
	Joint	51	22.2
5	**Education**		
	Below higher secondary	136	59.1
	Above higher secondary	94	40.9
6	**Occupation**		
	Lower occupation	196	85.2
	Higher occupation	34	14.8
7	**Socio economic status**		
	APL (Above poverty line)	136	59.1
	BPL (Below poverty line)	94	40.9

3.2. Assessment of perceptions of patients related doctor-patient interactions (n=230)

Upon evaluating the effectiveness of doctor-patient communication using the DPC questionnaire, our study found that 89 participants (38.7%) reported experiencing poor communication, while 141 participants (61.3%) reported good doctor-patient interactions. The majority of study participants (67.4%, n=155) reported that doctors listened to them carefully during a consultation, while (50.9%, n=117) felt encouraged to express themselves. Additionally, (68.3%) believed that doctors understood them well and were able to comprehend their concerns effectively. However, (32.6%, n=75) of participants expressed dissatisfaction, stating that doctors did not adequately explain the benefits and drawbacks of treatment or care strategies. Interestingly, none of the participants felt that doctors were disrespectful or failed to understand them. Moreover, most respondents indicated trust in their doctors, with a majority reporting confidence in receiving truthful information from them. Furthermore, (57.8%, n=132) of participants noted that doctors involved them in decision-making processes. (Table-2)

Table 2: Analysis of perceptions of patients on Doctor-Patient Communication (n=230)

DPC Questionnaire	No	Possibly No	Possibly Yes	Yes
1. Did the doctor listen to you carefully during the consultation?	1 (0.4%)	19 (8.3%)	55 (23.9%)	155 (67.4%)
2. Did the doctor allow you to talk without interrupting you?	30 (13%)	21 (9.1%)	48 (20.9%)	131 (57%)
3. Did the doctor encourage you to express yourself or talk?	18 (7.8%)	16 (7%)	79 (34.3%)	117 (50.9%)
4. Did the doctor examine you thoroughly?	9 (3.9%)	21 (9.1%)	61 (26.5%)	138 (60%)
5. Did you feel that the doctor understood you?	0 (0%)	26 (11.3%)	47 (20.4%)	157 (68.3%)
6. Was it easy to understand what the doctor said?	18 (7.8%)	26 (11.3%)	47 (20.4%)	157 (68.3%)
7. Do you feel you were given all the necessary information?	39 (17%)	14 (6.1%)	52 (22.6%)	125 (54.3%)
8. Did the doctor explain the advantages and disadvantages of the treatment or care strategy?	75 (32.6%)	43 (18.7%)	21 (9.1%)	91 (39.6%)
9. Did the doctor involve you in the decision-making?	30 (13%)	45 (19.6%)	22 (9.6%)	133 (57.8%)
10. In your opinion, did the doctor have an assuring attitude and way of talking?	20 (8.7%)	22 (9.6%)	63 (27.4%)	125 (54.3%)
11. Do you think the doctor was generally respectful?	0 (0%)	27 (11.7%)	24 (10.4%)	179 (77.8%)
12. Did the doctor make sure that you understand his explanations and instructions?	23 (10%)	45 (19.6%)	31 (13.5%)	131 (57%)
13. Do you think the doctor told the whole truth?	17 (7.4%)	38 (16.5%)	55 (23.9%)	120 (52.2%)
14. Do you have confidence in this doctor?	11 (4.8%)	28 (12.2%)	33 (14.3%)	158 (68.7%)
15. Did the doctor reply to all your expectations and concerns?	9 (3.9%)	29 (12.6%)	60 (26.1%)	132 (57.4%)

3.3. Demographic factors of patients and perceptions on doctor-patient communication (n=230)

In our study, a majority 75.3%, (n=55) of participants aged 31-45 reported having good doctor-patient communication. When examining satisfaction levels by gender, a higher proportion of females (86.9%, n=106) expressed good satisfaction with their communication with doctors. Furthermore, participants with lower occupational and educational statuses reported better doctor-patient communication, with those below higher secondary schooling particularly notable. Also, 66.9% (n=91) of participants classified as above the poverty line (based on ration card details) also reported good DPC. Upon assessing the association between sociodemographic factors and DPC, age group, gender, education status, occupation status, socioeconomic status, and family type were found to

have significant associations with a p-value < 0.05.
(Table-3)

Table 3: Association of demographic variables of patient and DPC (n=230)

No	Factors	Poor Communication (n=89, 38.7%)	Good Communication (n=141, 61.3%)	Significance
1	**Age group**			
	18-30	17(27.9%)	44(72.1%)	
	31-45	18(24.7%)	55(75.3%)	Chi square test: 23.58 P value – 0.001
	46-60	45(60%)	30(40%)	
	>60	9(42%)	12(57%)	
2	**Gender**			
	Male	73(67.6%)	35(32.4%)	Chi square test:71.6 P value:0.001
	Female	16(13.1%)	106(86.9%)	OR=5.1 (95% CI 3.2-8.2)
3	**Religion**			
	Christian	0	2(100%)	
	Hindu	26(40.6%)	38(59.4%)	FE test: 1.368 P value: 0.505
	Muslim	63(38.4%)	101(61.6%)	
4	**Type of family**			
	Nuclear	89(49.7%)	90(50.3%)	FE test:4.36 P value: 0.001
	Joint	0	51(100%)	OR= 0.50 (95% CI 0.43-0.58)
5	**Occupation**			
	Lower Occupation	63(32.1%)	133(67.9%)	Chi square test :24 P value:0.001
	Higher Occupation	26(76.5%)	8(23.5%)	OR= 2.8 (95% CI 1.5-5.3)
6	**Education**			
	Below higher secondary	46(33.8%)	90(66.2%)	Chi square test: 17.5 P value: 0.001
	Above higher secondary	43(45.7%)	51(54.3%)	OR= 1.2 (95% CI 1.1-1.5)
7	**Marital status**			
	Married	64(34%)	124(66%)	Chi square test:9.397 P value:0.002
	Unmarried	25(59.5%)	17(40.5%)	OR= 1.6 (95% CI 1.1-2.3)
8	**Socio economic status**			
	APL	45(33.1%)	91(66.9%)	Chi square test:4.41 P value:0.036
	BPL	44(46.8%)	50(53.2%)	OR= 1.2 (95% CI 1.06-1.57)

FE Test- Fischer exact test

3.4. Other factors and perceptions on doctor-patient communication (n=230)

A higher proportion of participants (72.7%, n=16) who perceived that the religion or culture of the doctor influences DPC tend to experience poor interactions with an OR of 1.6 (95%CI-1.3-2.6). Conversely, a substantial portion of respondents (65%, n=135) who did not consider the religion or culture of the doctor as impactful tend to report good communication experiences. Moreover, no significant associations were found between factors such as physical appearance, gender, or post-MBBS educational degree of the doctor and DPC. However, participants who believed that doctors with a high number of booked patients or those who inquired about non-disease-related matters exhibited good communication tended to experience effective doctor-patient interactions. Conversely, individuals (55.5%, n=61) who perceived rude behaviour from nurse receptionists, attendees, or other personnel as affecting DPC were found to have poorer communication experiences (OR-2.4, 95%CI 1.6-3.5). Additionally, a majority (73%, n=104) believed that doctors with lower consultation fees exhibit good communication skills. Notably, factors such as high consultation fees, rude behaviour from staff, doctors' inquiries unrelated to diseases, and a high number of booked patients had statistically significant associations with DPC. (Tables- 4, 5)

Table 4: Determinants associated with demographic variables of doctor and DPC (n=230)

No	Determinants	Poor communication (n=89, 38.7%)	Good Communication (n=141, 61.3%)	Significance
1	**Physical appearance of the doctor**			
	Yes	17(31.5%)	37(68.5%)	Chi square test:1.548
	No	72(40.9%)	104(59.1%)	P value – 0.213
2	**Gender of the doctor**			
	Yes	19(46.3%)	22(53.7%)	Chi square test: 1.23
	No	70(37%)	119(63%)	P value: 0.267
3	**Religion/culture of the doctor**			
	Yes	16(72.7%)	6(27.3%)	**Chi square test: 11.87**
	No	73(35%)	135(65%)	**P value: 0.001 OR= 1.6 (95% CI 1.3-2.6)**
4	**Educational degrees post MBBS of a doctor**			
	Yes	52(40.9%)	75(59.1%)	Chi square test: 0.605
	No	37(35.9%)	66(64.1%)	P value: 0.437

Table 5: Environmental factors associated with effectiveness of DPC (n=230)

No	Factors	Poor communication (n=89, 38.7%)	Good communication (n=141, 61.3%)	Significance
1	**High number of patients booked**			
	Yes	24(29.3%)	58(70.7%)	Chi square test: 4.774 P value: 0.029 OR= 1.26 (95% CI 1.03-1.5)
	No	65(43.9%)	83(56.1%)	
2	**Waiting time**			
	Yes	29 (38.2%)	47 (61.8%)	Chi square test: 0.014 P value: 0.908
	No	60 (39%)	94 (61%)	
3	**Environment (good chair, lighting, noise.)**			
	Yes	20 (32.3%)	42(67.7)	Chi square test: 2.198 P value: 0.333
	No	69 (41.3%)	98(58.7%)	
4	**When doctor enquire about things that are not related to disease**			
	Yes	44(30.3%)	101(69.7%)	Chi square test:11.534 P value: 0.001 OR= 1.4 (95% CI 1.1-1.9)
	No	45(52.9%)	40(47.1%)	
5	**The doctor's behaviour changes**			
	Yes	46(42.2%)	63(57.8%)	Chi square test: 1.074 P value: 0.300
	No	43(35.5%)	78(64.5%)	
6	**Doctor recommended by others**			
	Yes	72(40.7%)	105(59.3%)	Chi square test:1.272 P value: 0.259
	No	17(32.1%)	36(67.9%)	
7	**Rude behaviour of the nurse receptionist/attender/other personals**			
	Yes	61(55.5%)	49(44.5%)	Chi square test: 30.01 P value: 0.0001 OR= 2.4 (95% CI 1.6-3.5)
	No	26(22%)	92(78%)	
8	**High consultation fees**			
	Yes	52(58.4%)	37(41.6%)	Chi square test:23.86 P value:0.0001 OR= 2.2 (95% CI 1.6-3.0)
	No	37(26.2%)	104(73.8%)	

4. DISCUSSION

Doctor-patient communication is one of the essential precursors of patient-centered care. In a study conducted by Chandra et al., 45.6% of participants perceived doctors' communication behaviour as good, with the remaining population rating it as below average. [9] Similarly, Platanova et al. found that 53% of patients experienced good DPC, while 47% reported poor DPC. Despite differences in specific percentages, our study results demonstrated a higher proportion of participants reporting good communication (61.3%). [11] However, a consistent trend across all studies was observed, where the percentage of individuals reporting good DPC exceeded those reporting poor DPC, likely reflecting the universal importance of effective doctor-patient communication.DPC quality depends on factors like provider communication style and technology integration, with patient age being key. Our research findings present a contrast to those of Mitchell Peck et al., who found that patients over 65 years exhibited a stronger correlation (OR = 2.02, p = 0.039) between interaction style and satisfaction. [12] Interestingly, in our study, the majority of participants (75.3%) aged between 31 and 45 reported experiencing good doctor-patient communication. This observation aligns with the findings of a study by Nikita Sabherwa et al., where they similarly identified good DPC among individuals aged 30 to 50 years. [13] Further research with balanced age representation is needed to understand DPC nuances across age groups. Gender was a significant factor in medical interactions, and our study found that females reported more positive communication experiences. This aligned with Statska et al., who noted that females often described doctor-patient communication more positively than males. [14] Additionally, studies by Fulvia Signani, suggested that patients exhibit different behaviours depending on the gender of the doctor, with satisfaction levels varying accordingly. [15] Notably, Shipra Singh et al.'s study also found that women tended to report higher levels of patient-centered provider communication, consistent with our findings. [16] Furthermore, research by Siu et al. highlights how gender disparities between patients and doctors significantly impact the quality of communication

during treatment processes. [17] The consistent findings highlighted the widespread impact of gender dynamics on doctor-patient communication, influenced by factors like patient expectations, provider behaviours, and communication styles.

The study conducted by Evelyn Verlynd et al. uncovered a positive correlation between a patient's social class and the level of information provided, indicating that individuals from higher social classes received more comprehensive communication and information. [18] Additionally, patient communication style also plays a significant role in shaping doctor-patient interactions, as highlighted in a study by Street et al., where factors such as question-asking, affective expressiveness, and opinion-giving positively influenced physicians' information provision. [19] Our study revealed that patients with lower education and occupational status reported good DPC, indicating factors beyond socioeconomic status influenced healthcare communication. This discrepancy highlighted the need for further research. Additionally, De Leander N et al. found that 66.9% of participants above the poverty line experienced good communication. [20] Research conducted by Arnold M. Ebstein et al. demonstrated that communication between patients and physicians was less efficient when patients were from lower socioeconomic backgrounds, identified by occupation or insurance coverage. [21] The disparities observed in our study highlighted the need for examinations of the multifaceted influences on DPC, extending beyond socioeconomic indicators alone.

Building a successful doctor-patient relationship is key to effective medical practice, with a focus on rapport to support patient-centered care. Research by Singh et al. indicated that physician attire impacts patient perceptions, suggesting that guidelines could be tailored to these preferences. While the importance of a doctor's attire in communication is recognized, the literature presents conflicting views on its role. [22] For instance, a study by Laikuram P et al. reveals that a majority of participants preferred well-groomed hair (87%), clean-shaven appearance (77.8%), and the wearing of ID badges (82.9%) by

their doctors. Conversely, our study indicates that 68% of patients reported experiencing good communication when the doctor's appearance was favourable. [23] This emphasizes the importance of a doctor's appearance in patient interactions, suggesting patients value physical presentation. In Laikuram et al.'s study, approximately 60% of participants expressed no gender preference for doctors, suggesting a relative absence of bias based on gender. [23] Our study found that over 60% of participants without gender preferences reported good DPC, aligning with Alyahya et al. and Dagostini et al., where most participants showed no gender preference for their physician's demeanour and competence. However, women preferred female doctors for discussing sensitive topics like contraceptive use and gynaecological exams due to cultural and religious reasons. [24, 25] Interestingly, a high proportion (72.7%) of participants who believe that the religion or culture of doctors affects doctor-patient communication reported poor DPC, while a larger proportion (65%) of those who did not consider these factors reported good DPC, consistent with other studies such as those conducted by Hebert et al. [26] This consistency may indicate that patients prioritize effective communication over religious or cultural considerations when assessing doctor-patient interactions.

Patient satisfaction was lowest regarding waiting times (36.7%), showing a negative correlation with DPC satisfaction. Key barriers included computer systems (46%), crowded waiting areas (42.7%), understaffing (38.1%), and inadequate consultation rooms (37.3%). Addressing these factors could improve overall patient satisfaction, as found by Sultan Mosleh et al. [27] Similarly, in our study, a high proportion of participants reported that doctors with a high number of booked appointments and those who inquire about non-disease-related matters exhibit good DPC. Additionally, Rasheedi KF et al.'s study revealed a similar trend, with more than half of the patient's expressing dissatisfaction with waiting times at primary healthcare centers. [28] This consistency highlighted the significance of waiting times in patient satisfaction and the need for

healthcare facilities to prioritize addressing these concerns to improve overall patient experience.

In our study, 78% of participants perceived good DPC with doctors who charge lower consultation fees. Factors such as high fees, rude staff, unrelated inquiries by doctors, and an excessive number of booked patients were significantly associated with DPC. Similarly, Grissinger et al. found that rude staff behaviour and high consultation fees negatively affect patient communication and emotional well-being. [29] Our study showed that 67.4% felt doctors listened well, and 50.9% felt encouraged to speak. However, 32.6% noted inadequate explanations of treatment. None felt disrespected or misunderstood, and 57.8% were involved in decision-making. Similarly, Chandra and Mohammmadnezhad found 85.1% felt comfortable with their doctors, 81.1% received clear explanations, and 71.7% were well-informed, aligning with our results. [9] Reed et al.'s study further supported these observations, emphasizing the importance of addressing these factors for effective doctor-patient communication. [30]

5. CONCLUSION AND RECOMMENDATIONS
In conclusion, our study highlighted the multifaceted nature of doctor-patient communication and its association with various demographic and contextual factors. We found that a significant proportion of participants reported positive doctor-patient interactions, with factors such as attentive listening by doctors and involvement in decision-making processes contributing to favourable communication experiences. Surprisingly, participants from diverse socioeconomic backgrounds, including those with lower educational and occupational statuses, as well as those classified as above the poverty line, reported good DPC. However, challenges such as the influence of the doctor's religion or culture, high consultation fees, and rude behaviour from staff were identified as significant barriers to effective communication. These findings highlight the importance of addressing contextual factors and promoting patient-centered communication strategies to enhance the quality of healthcare delivery and patient satisfaction.

Healthcare institutions should prioritize training programs for providers to enhance communication skills, emphasizing active listening and patient engagement. Efforts must address barriers like high consultation fees and staff rudeness to improve patient experiences. Promoting cultural competency among healthcare professionals is essential for inclusive communication practices. Further research should investigate demographic influences on doctor-patient communication to develop tailored strategies to meet diverse patient needs.

6. LIMITATIONS

Despite our efforts to ensure representation, the study's reliance on convenience sampling may introduce selection bias, limiting the generalizability of our findings to the broader population. The cross-sectional design limited the ability to establish causality between factors and doctor-patient communication outcomes. Additionally, interviewer-administered face-to-face data collection may have introduced social desirability bias, potentially affecting response accuracy as participants might align answers with social norms.

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