COMPARISON OF PHYSICIAN COMMUNICATION, PHYSICIAN EMPATHY, PHYSICIAN–PATIENT CONCORDANCE, AND PATIENT SATISFACTION ACROSS PSYCHIATRY, CARDIOLOGY, AND DERMATOLOGY DEPARTMENTS

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Abstract

The present study examined associations among physician communication, physician empathy, physician–patient concordance, and patient satisfaction, and compared these perceptions across clinical departments and patient gender. Using a cross-sectional survey design, data were collected from 238 patients (79 men, 159 women) recruited through purposive convenience sampling from public and private-sector hospitals in Rawalpindi and Islamabad, Pakistan, including psychiatry (n = 79), dermatology (n = 86), and cardiology (n = 73) services. Patients completed the Communication Assessment Tool, the Jefferson Scale of Patient Perceptions of Physician Empathy, the Physician–Patient Concordance Scale, and a patient satisfaction scale. Pearson correlations indicated strong positive associations among all study variables (rs = .77–.91, p < .001), with higher perceived communication, empathy, and concordance related to greater satisfaction. Independent-samples t-tests showed that women reported higher empathy, t(236) = -2.17, p = .031, and higher satisfaction, t(236) = -2.09, p = .037, than men; gender differences in communication and concordance were not significant. One-way ANOVAs revealed significant departmental differences in communication, empathy, concordance, and satisfaction (Fs(2, 235) = 3.67–4.60, ps = .011–.027, η² = .03–.04). Tukey HSD comparisons indicated that cardiology patients reported higher scores than psychiatric patients across all outcomes; scores for dermatology patients were intermediate and did not differ significantly from either group. These findings underscore the importance of interpersonal and relational factors in patient satisfaction and suggest that departmental context may be associated with variations in patients' care experiences. However, due to the cross-sectional design and sampling method, causal inferences are limited, and results should be interpreted with caution.

Keywords: Physician's Communication, Physician's Patient Concordance, Physician's Empathy, Patient's Satisfaction.

Introduction

Physician-patient interaction has been viewed as a key component of effective health-care provision at the international level, with clinical outcomes among the primary determinants, alongside psychological health and adherence to interventions. The four constructs central to this interaction are physician communication skills, empathy, concordance, and patient satisfaction, which are interrelated. In clinical

Title: Comparison of Physician Communication, Physician Empathy, Physician–Patient Concordance, and Patient Satisfaction Across Psychiatry, Cardiology, and Dermatology Departments

268

practice, communication involves verbal and nonverbal actions that physicians use to obtain patients' concerns, impart medical information, and negotiate treatment (Epstein et al., 2008). Empathy refers to the physician's ability to empathise with the patient and recognise the patient's feelings and outlook without becoming overly emotionally attached (Kerasidou & Horn). Concordance is used to describe the level of agreement between a physician and a patient regarding health beliefs, treatment targets, and relationship dynamics (Street et al., 2008). Patient satisfaction is a multidimensional construct that entails patients' subjective assessment of the care they received, including interpersonal rapport, technical competence, and emotional support (Al-Abri & Al-Balushi, 2014).

The interplay of these constructs is crucial to enhancing the quality of health care, but their interaction across the wide range of clinical conditions has not been fully studied. Although there is extensive global literature on physician communication and patient satisfaction, significant gaps remain. To begin with, most of the research has been conducted in Western health-care settings, and it is unclear whether the findings can be applied to South Asian settings. The healthcare situation in Pakistan is specific due to the particular system of socio-cultural norms, doctor-patient relationships, and limited resources, which makes the context-specific investigation justified. Second, concordance is also a construct that has not been studied as extensively as communication and empathy, although it has theoretical and practical implications. Third, the existing literature has not focused on departmental comparisons that can uncover specialty-related patterns (Chatzoudes et al., 2026).

The current research aims to fill these gaps by exploring relationships among physician communication, physician empathy, concordance, and patient satisfaction within tertiary-care hospitals in Pakistan, while accounting for departmental and patient demographic differences.

Literature Review

Doctor-Patient Interaction and Patient Outcomes

There is an increasing body of research highlighting the therapeutic power of effective communication between healthcare providers. Patients who feel their doctors are friendly and listen to them more easily, understand treatment options, and take their medications. In addition to the exchange of information, competent communication has been associated with physiological gains, including reduced pain perception, improved blood-pressure regulation, and improved overall performance. Nonetheless, studies have shown that clinicians tend to focus on biomedical symptoms rather than on patients' subjective experiences, overlook emotional issues, and do not involve patients in the decision-making process (Epstein, Mauksch, Carroll, & Jaen, 2008; DiMatteo et al., 1993). This reductionist approach ignores the complex human aspects of illness, potentially undermining the effectiveness of care.

Under the influence of the need to assess the level of patient perception of the communication skills of physicians systematically, Makoul, Krupat, and Chang (2007) created the Communication Assessment Tool (CAT), which focuses on such areas of interpersonal beliefs as the ability to greet patients properly, take an interest in their issues, and explain everything clearly to them. Their work showed that patients' ratings of communication could be measured reliably and were strongly correlated with their satisfaction with care (Su et al., 2026).

The Role of Physician Empathy

Empathy is a very important component of the communication-satisfaction pathway. Doctors who respond to patients' emotions are viewed as caring and trustworthy, and this creates a therapeutic relationship with patients that is not limited by technical skills (Lankton, Batchelder, & Ominsky, 1977). Clinicians should engage with patients' emotional realities and goodwill without becoming emotionally overwhelmed through self-awareness and empathy.

Empathy has been linked to increased patient satisfaction, fewer medical errors, better treatment adherence, fewer malpractice claims, and better health outcomes (Kerasidou et al., 2016). Hojat et al. (2010) observed that patients' perceptions of physician empathy were strongly related to satisfaction, interpersonal trust, and self-reported adherence to treatment recommendations. The Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE) was created to capture patients' perceptions of how their physicians express empathy and offers a supplemental account to physician self-report scales. Although this is a strong evidence

base, empathy training and assessment have yet to receive the emphasis they deserve in most clinical practice, especially in healthcare systems with limited resources.

Physician-Patient Concordance

The least commonly investigated practise, concordance nevertheless makes a critical contribution to defining patient experiences. Concordance is not merely a simple agreement; it is the expression of a shared perception of the causes of illness, their treatment priorities, and their expectations of the therapeutic relationship (Gross et al., 2013). Patients who feel that they are personally similar or that they are personally aligned with their doctors (regardless of their beliefs about health, style of communication, or relational approach) report higher levels of satisfaction, increased trust, and improved intentions to act on the recommendations (Street, O'Malley, Cooper, & Haidet, 2008).

The Physician-Patient Concordance Scale, developed by Kerse et al. (2004) to gauge the level of agreement between a patient and their physician on critical issues concerning the clinical relationship, was designed to address the issues mentioned above. Their study on primary-care experience showed that increased concordance correlates with improved medication adherence and that concordance acts as a bridging factor, effective communication, and compassionate interaction, leading to long-term patient compliance and a positive response to health practices.

Quality Indicator Satisfaction with Patients.

Patient satisfaction is also a quality indicator and an outcome in the healthcare system. It summarises patients' ratings of care across dimensions such as technical expertise, interpersonal friendliness, informational explicitness, and emotional assistance (Imam et al., 2007). Its conceptualization is contentious, but patient satisfaction is becoming an essential part of measuring the quality of care and of strategic enhancements to service delivery (Al-Abri & Al-Balushi, 2014).

Imam et al. (2007) conducted a cross-sectional study at a tertiary care hospital in Pakistan. They reported that low overall satisfaction was accompanied by a major disparity in patients' perceptions of communication and involvement in decision-making. On the same note, Ghazanfar, Idress, Zia, Munir, and Maryam (2017) compared patient satisfaction levels between public and private tertiary care facilities in Pakistan and found significant differences, highlighting the need for context-specific quality-improvement programmes. Clinical competence and the relational processes in which care is provided are determinants of satisfaction; therefore, interpersonal aspects should be considered alongside technical performance (González-Juanatey et al., 2026).

Interdepartmental Disagreements in the Physician-Patient Relations.

Moreover, the character and degree of interaction between physicians and patients can vary significantly across medical fields. Psychiatry, dermatology, and cardiology are distinct clinical settings that present different communicative requirements and relational issues.

The application of empathetic interaction and the joint investigation of mental health issues are core values in psychiatric practise and may require the employment of prolonged emotional sensitivity. Muller et al. (2002) examined patient satisfaction in mental care and found that the therapeutic relationship, as perceived as understood and respected, is the strongest indicator of patient satisfaction. However, psychiatric care might come with stigma, complicated psychosocial problems, and time-consuming exploration, which might be limited by service pressures, consequently, having a potential influence on the perception of engagement by the patient.

Dermatology comprises observable disorders, which might have psychosocial implications, and it is sensitive to the emotional distress and body-image concerns of patients. Dermatological patients tend to have psychological distress associated with the manifestation of their condition, and work on physician-patient communication in dermatology has not been widely studied.

Cardiology, often dealing with acute or chronic life-threatening conditions, requires the proper delivery of complex medical information in high-stakes situations. Kayaniyil et al. (2009) conducted a study on patient trust in cardiologists. They reported that the quality of communication and perceived empathy were both significant correlates of trust, which in turn correlated with adherence and satisfaction with treatment. Risk communication, treatment planning, and adherence counselling are common scenarios that cardiology

encounters, which can encourage more explicit explanations and a greater focus on how well treatment priorities align.

Such differences that are specific to any specialty probably affect communication, empathy, concordance, and the quality of perceived care for patients. Nonetheless, there are few comparative research studies to assess these constructs between the departments, especially in South Asian healthcare settings.

Patient gender and care perceptions.

The patient's gender can also affect perceptions of communication, empathy, and physician satisfaction. The literature on the differences between the gender experiences in healthcare has produced conflicting results. According to some studies, women patients are more satisfied with the care they receive and believe they receive more empathy from physicians. At the same time, other researchers do not see any significant differences between the two genders (Ghazanfar et al., 2017). The discrepancies could be due to differences in healthcare settings, measurement methods, or an interaction between gender and other demographics and clinical factors. Gender differences in perceptions of care are key to the development of equitable, patient-centred healthcare services.

The Justification of the Current Research.

Although international studies on physician communication and patient satisfaction are extensive, critical gaps remain in the literature. First, most studies are conducted in the Western healthcare system, and it is unclear whether the results can be applied to South Asian contexts. The healthcare environment in Pakistan can be examined in relation to unique socio-cultural beliefs, doctor-patient hierarchies, and insufficient resources, and these factors should be investigated within context-specific settings. Second, the concordance is a relatively under-researched construct compared to communication and empathy, despite its theoretical and practical importance. Third, departmental comparisons, which could be of specialty-specific patterns, have been overlooked in the literature. Fourth, the interaction between patient gender and these constructs of relationships needs further investigation across diverse cultural backgrounds.

These gaps need to be addressed to develop contextually relevant interventions that improve patient-centred care. The current research aimed to investigate the connections among physician communication skills, empathy, concordance, and patient satisfaction in tertiary-care hospitals in Pakistan, and to examine departmental differences and patient demographics.

Objectives and Hypotheses of the research.

1. There would be a positive relationship between patient satisfaction and physician communication skills, empathy, and concordance.
2. The difference in the perceptions of these constructs between male and female patients would be very different.
3. The presence of a big difference in the level of satisfaction and predictors would characterise the patients of the psychiatry department, dermatology department, and cardiology department.

Methodology

This study employed a cross-sectional correlational design. Data were collected between December 2018 and February 2019 from the psychiatry, cardiology, and dermatology departments of public and private-sector hospitals in Islamabad and Rawalpindi, Pakistan.

Sample

Participants were recruited using purposive convenience sampling. Inclusion criteria required participants to be (a) receiving care in one of the participating departments, (b) able to comprehend English, (c) have at least an intermediate-level education, and (d) provide informed consent. Patients were excluded if they were unable to complete the questionnaire due to acute clinical instability, significant cognitive impairment, or refusal/withdrawal of consent.

Measures

Four measures were used to assess patients' perceptions of physicians' communication and empathy and their own satisfaction with care.

Communication Assessment Tool (CAT). Patients' perceptions of physicians' communication skills were evaluated using the 15-item CAT (Makoul et al., 2007). Items are rated on a 5-point scale (1 = poor to 5

Title: Comparison of Physician Communication, Physician Empathy, Physician–Patient Concordance, and Patient Satisfaction Across Psychiatry, Cardiology, and Dermatology Departments

271

= excellent) and summed to yield total scores ranging from 15 to 75, with higher scores indicating better perceived communication. The CAT demonstrated high internal consistency in the original development study (Cronbach α = .96).

Jefferson Scale of Patient Perceptions of Physician Empathy (JSPPPE). Patients' perceptions of physicians' empathic engagement were measured using the 5-item JSPPPE (Kane et al., 2007). A 7-point Likert format (1 = strongly disagree to 7 = strongly agree) was used, producing total scores from 5 to 35. The scale has demonstrated excellent reliability (α ≈ .98).

Scale of Patient Overall Satisfaction with Physicians. Patient satisfaction was assessed using the 10-item Scale of Patient Overall Satisfaction with Physicians (Hojat et al., 2011). Items are rated on a 7-point agreement scale (1 = strongly disagree to 7 = strongly agree) and summed to yield total scores ranging from 10 to 70, with higher scores indicating greater satisfaction. The developers reported excellent reliability (α = .98).

Physician–Patient Concordance Scale (PPC). Physician–patient concordance was assessed using the 6-item PPC (Kerse et al., 2004). Items are rated on a two-point response format (0 = *not at all*, 1 = *completely*). Item scores are summed to yield total scores ranging from 0 to 6, with higher scores indicating greater perceived concordance. It should be noted that this dichotomous response format yields a coarser assessment than the Likert-type scales used for the other constructs.

Procedure

Before data collection, administrative permission was obtained from hospital authorities. Patients who met eligibility criteria were approached in the relevant departments and briefed on the study aims, confidentiality, voluntariness, and the right to withdraw without affecting their care. Written and verbal informed consent was obtained before participation. Participants completed the questionnaire packet in approximately 15–20 minutes; questions were clarified without influencing responses, and completed forms were collected immediately.

Ethical Considerations

The study was conducted in accordance with relevant ethical principles for research involving human participants. Ethical approval was obtained from the ethics review board of the National Institute of Psychology, Quaid-I-Azam University, Islamabad. Participants were assured of confidentiality and anonymity; no identifying information was used in analyses, and data were stored securely with access limited to the research team.

Data Screening and Analysis Plan

Data were screened for completeness and distributional assumptions prior to hypothesis testing. Descriptive statistics (means, standard deviations, skewness, kurtosis) and internal consistency reliabilities (Cronbach's α) were computed for all study measures. Pearson product–moment correlations were used to examine bivariate associations among physician communication, physician empathy, physician-patient concordance, and patient satisfaction. Independent-samples t-tests and one-way ANOVA were conducted to examine differences in these variables by patient gender and across departments. Analyses were performed using IBM SPSS Statistics 27.

Results

The frequencies and percentages of the sample's demographic profile were computed.

Table 1

Frequencies and percentages of demographic variables (N=238)

Variable	n (%)	Variable	n (%)
Gender		**Residency**	
Male	79 (33.2%)	Native	214 (89.9%)
Female	159 (66.8%)	Non-native	24 (10.1%)
Education		**Marital status**	
Intermediate	167 (70.0%)	Unmarried	85 (35.7%)
Graduate	47 (19.7%)	Married	147 (61.8%)
Postgraduate	24 (10.1%)	Divorced	6 (2.5%)

Title: **Comparison of Physician Communication, Physician Empathy, Physician–Patient Concordance, and Patient Satisfaction Across Psychiatry, Cardiology, and Dermatology Departments**

272

Variable	n (%)	Variable	n (%)
Department		**No. of visits**	
Psychiatry	79 (33.2%)	1 visit	126 (52.9%)
Dermatology	86 (36.1%)	2 visits	75 (31.5%)
Cardiology	73 (30.7%)	3 visits	37 (15.6%)

Note. n= frequency, %= percentage

As shown in Table 1, the sample (N = 238) comprised more females (n = 159, 66.8%) than males (n = 79, 33.2%). Most respondents were native residents (n = 214, 89.9%), had intermediate-level education (n = 167, 70.0%), and were married (n = 147, 61.8%). Participants were recruited from dermatology (n = 86, 36.1%), psychiatry (n = 79, 33.2%), and cardiology (n = 73, 30.7%). More than half of the sample reported this was their first visit (n = 126, 52.9%).

Descriptive and psychometric analyses were conducted to assess the normality of study variables and confirm the internal consistency of the measures.

Table 2
Descriptive Statistics and Alpha Reliabilities of Study Variables (N =238)

Scales	Items	α	M	SD	Actual Range	Obs. Range	Skew	Kurt
Physicians' Communication	15	.99	48.29	17.81	15--75	15--75	-0.29	-1.28
Empathy	5	.96	23.75	8.21	5--35	5--35	-0.68	-0.48
Concordance	6	.89	2.79	2.42	0--6	0--6	-0.02	-1.65
Patient Satisfaction	10	.98	50.61	15.53	10--70	10--70	-0.82	-0.29

Note. Physicians' CS = Physicians' Communication Scale, skew = skewness; kurt = kurtosis.

Table 2 presents descriptive statistics. All scales demonstrated good to excellent internal consistency (α = .89 to .99). Skewness and kurtosis values were within ±2, indicating that the data met the assumptions for parametric analysis.

A Pearson product–moment correlation was conducted to examine associations among physician communication, physician empathy, physician-patient concordance, and patient satisfaction.

Table 3
Means, Standard Deviations, and Pearson Correlations Among Study Variables (N = 238)

Measure	M	SD	1	2	3
1. Physicians' Communication	48.29	17.81	—		
2. Empathy	23.75	8.21	.90***	—	
3. Concordance	2.79	2.42	.82***	.77***	—
4. Patient Satisfaction	50.61	15.53	.89***	.91***	.77***

Note. ***p < .001.

Results indicated that all study variables were positively and strongly associated (see Table 3). The magnitude of the correlations, particularly between communication, empathy, and satisfaction (r > .89), was very high, suggesting these constructs may be closely intertwined in patients' perceptions and raising considerations about potential conceptual overlap.

To examine whether patient gender was associated with differences in the study variables, independent-samples t-tests were conducted (see Table 4).

Table 4
Mean Differences in Study Variables by Patient Gender (N=238)

Variable	Male (n = 79)		Female (n = 159)		95% CI			
	M	*SD*	*M*	*SD*	*t (236)*	*LL*	*UL*	*Cohen's d*
Physicians' Communication	45.25	18.13	49.79	17.51	-1.86	-9.34	0.26	-0.26
Empathy	22.13	8.77	24.56	7.81	-2.17*	-4.64	-0.23	-0.30
Concordance	2.62	2.50	2.88	2.38	-0.78	-0.92	0.40	-0.11
Patient Satisfaction	47.65	16.98	52.09	14.59	-2.09*	-8.62	-0.26	-0.29

Note. * p < .05.

As shown in Table 4, female patients reported significantly higher physician empathy and higher patient satisfaction than male patients. Gender differences in physicians' communication and physician–patient concordance were not statistically significant. Effect sizes for the significant differences were small (d ≈ 0.30).

To test whether perceptions differed across clinical settings, one-way ANOVAs were conducted to compare psychiatric, dermatology, and cardiology departments (see Table 5).

Table 5
One-Way ANOVA of Department Differences on Study Variables (N = 238)

Variable	Psychiatry (n=79)	Dermatology (n=86)	Cardiology (n=73)	95% CI for η²				
	M (SD)	*M (SD)*	*M (SD)*	*F (2, 235)*	*η²*	*LL*	*UL*	*Post hoc (Tukey HSD)*
Physicians' Communication	44.10 (19.47)	48.93 (16.01)	52.05 (17.22)	3.97*	.03	.00	.08	Cardiology > Psychiatry
Empathy	21.96 (9.29)	23.90 (7.41)	25.52 (7.53)	3.67*	.03	.00	.08	Cardiology > Psychiatry
Concordance	2.19 (2.48)	2.99 (2.39)	3.22 (2.27)	3.98*	.03	.00	.08	Cardiology > Psychiatry
Patient Satisfaction	46.57 (18.29)	51.53 (13.60)	53.90 (13.54)	4.60*	.04	.00	.09	Cardiology > Psychiatry

Note. * p < .05. Tukey HSD comparisons are reported only when significant (p < .05). Dermatology did not differ significantly from either Psychiatry or Cardiology.

One-way ANOVAs revealed significant departmental differences across all study variables, with small effect sizes (η² = .03–.04). Tukey HSD post hoc tests indicated that cardiology patients reported significantly higher scores than psychiatric patients across all measures. Dermatology patients' scores were intermediate and did not differ significantly from those of either cardiology or psychiatry patients.

Discussion

This paper examined patients' perceptions of physician communication, physician empathy, physician-patient concordance, and patient satisfaction in psychiatric, dermatologic, and cardiologic services and tested whether these perceptions differed by gender. The results demonstrate strong links between these relational processes and patients' assessment of care in a Pakistani healthcare environment. Internal consistency showed high reliability across all measures; hence, the instruments used in this sample are reliable.

In line with patient-centred care models, empathy, concordance, and patient satisfaction were strongly related to physician communication. This trend solidifies the conceptualisation that communication is not just

about the exchange of biomedical information. However, it is more of a relational process in which physicians seek patients' disclosure of information, clarification of expectations, and negotiation of care in a manner that is felt as respectful and supportive (Epstein et al., 2008; Chandra et al., 2018). The factor of satisfaction has been most strongly associated with empathy and communication in the present data set, indicating that the emotional and interpersonal aspects of encounters can strongly influence how patients judge the care they receive. The observation aligns with previous studies highlighting the strong connections among satisfaction, being heard, receiving clear explanations, and receiving emotional support (Imam et al., 2007; Al-Abri & Al-Balushi, 2014).

The very high correlation coefficients among communication, empathy, and satisfaction (r > 0.89) warrant more attention. Although the strong associations may indicate that these constructs reinforce each other, they also raise the question of whether the constructs overlap in patients' minds. Patients might not distinguish between a doctor who speaks and one who empathises; rather, those two dimensions can be viewed as components of a single global concept of a good doctor. This interpretation is consistent with the view that patients perceive the quality of care as a coherent interpersonal package (Hojat et al., 2011). Future studies that utilise factor analysis may be useful in elucidating whether these constructs are empirically distinct or a one-dimensional phenomenon within this group.

There was also a very strong relationship between physician-patient concordance (on a less fine-grained dichotomous scale) and satisfaction, communication, and empathy. The identified finding helps conceptualise concordance as one measure of mutual understanding and alignment of goals in the clinical relationship (Street et al., 2008; Gross et al., 2013). Despite measurement limitations, its strong relationship with satisfaction underscores its usefulness in enhancing patient experiences, especially where hierarchical forces may limit the sharing of decisions. The overall average concordance of 2.79/6 indicates that, on average, patients did not feel their physicians agreed with them on vital dimensions.

Regarding patient gender, women had higher physician empathy scores and greater satisfaction than men, with no significant differences in communication or concordance. Effect sizes were small, but the trend suggests that gender may be associated with patients' interpretations and valuations of the relational aspects of care. One of them is that women may be more attentive to or more likely to report empathic behaviours, which could affect satisfaction scores. However, the cross-sectional nature also implies that observed differences could result from differences in expectations, communication preferences, or the distribution of departments within gender groups. These results are generally consistent with previous evidence suggesting that gender-based differences may be reflected in satisfaction-related outcomes. However, the effects tend to be relatively small and vary by context (Chatzoudes et al., 2026; Ghazanfar et al., 2017).

Inter-departmental comparisons showed considerable variation across all variables, with cardiology patients scoring higher than psychiatric patients. The dermatology patients' scores were neither high nor low and did not differ significantly between the groups. It should be stressed that the findings are at the association level, not the department per se. The observed differences could have been due to unmeasured confounding factors rather than to the specialty. The possible explanatory variables are:

Stated expectations and illness perceptions of the patient.

Cardiac patients might have different expectations about physician communication with mental health patients who might be stigmatised or have different treatment requirements (Muller et al., 2002; Kayaniyil et al., 2009).

Structuring of the consultation period and the length of the consultation period

Visits to cardiology can be more risk-communication-focused and treatment-planning, and explanations can become more open. In a systemic pressure, psychiatric consultations, though longer and more exploratory, may not necessarily engage the patient as expected because of the length of service.

Symptom burden, psychosocial factors

These factors may also be how patients perceive and measure their care due to the nature of the illness, such as visible cutaneous eruptions, life-threatening cardiac activity, or mentally stigmatised conditions.

These alternative explanations emphasise that such interpretations must be considered carefully and that future studies should include service-level and patient-level covariates.

Title: Comparison of Physician Communication, Physician Empathy, Physician–Patient Concordance, and Patient Satisfaction Across Psychiatry, Cardiology, and Dermatology Departments

275

Limitations

These findings have significant limitations that should be considered when interpreting them.

To begin with, the cross-sectional design does not allow for causal conclusions. Although the research can find relationships between variables, it is not able to determine whether communication, empathy, and concordance affect satisfaction, whether the patients who are satisfied rate their doctors in a more positive way, or whether there are third variables (e.g., length of consultation, hospital atmosphere) that are not measured and explain the relationships.

Second, there are limits to the sampling that limit generalisation. The purposive convenience sampling of hospitals in two cities implies that the sample is not representative of the entire patient population in Pakistan. More significantly, the criteria on English fluency and at least intermediate education artificially excluded a substantial group of the Pakistani population, especially the people with lower socioeconomic statuses, who might be the most dependent on free medical care. As a result, the results may be mainly based on the experiences of more educated and English-speaking patients.

Lastly, the high correlations among the important constructs (>.89) suggest the possibility of multicollinearity and indicate that patients can make meaningful distinctions among communication, empathy, and satisfaction. Although the measures are conceptually distinct, they can be used as a single construct in the worldwide assessment of patient care. To investigate the discriminant validity of these measures in South Asian contexts, future studies should utilise factor analysis or structural equation modelling.

Future Directions

The future study is advised to overcome these shortcomings by means of the following methods:

- Longitudinal or prospective studies to investigate the process of development of communication, empathy, and concordance during the treatment and determine their future satisfaction and health outcomes.
- Multivariate modelling (e.g., multiple regression, structural equation modelling) to test the independent effects of the three variables on satisfaction and to control their mutual interrelations.
- The mixed methods in which quantitative surveys and qualitative interviews are used to learn more about patient perceptions of care in different departments, and what, in particular, in communication and empathy, influences the patients the most.

Practical Implications

Despite these drawbacks, the results offer some early indications of quality improvements in Pakistani healthcare settings. Training in communication, focusing on clarity, active listening, and mutual decision-making, as well as strategies to facilitate empathy and concordance (e.g., checking understanding, negotiating goals, validating concerns), could increase patient satisfaction. Such strategies can be especially helpful in a mixed public-private healthcare system in Pakistan, where high patient volumes and hierarchical values can limit patient involvement. The differences across departments, although one must exercise care when interpreting them, can be interpreted as indicating that interventions might need to be specialty-specific based on the communicative needs and relationship issues of various specialties.

Authors Contributions

All the authors participated in the ideation, development, and final approval of the manuscript, making significant contributions to the work reported

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Conflict of Interest

The authors declare no conflict of interest.

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Data Availability Statement

Title: **Comparison of Physician Communication, Physician Empathy, Physician–Patient Concordance, and Patient Satisfaction Across Psychiatry, Cardiology, and Dermatology Departments**

276

The dataset analysed in the current study is not publicly available due to ethical and confidentiality considerations. However, it is available from the corresponding author upon reasonable request, subject to institutional approval.

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