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ORIGINAL ARTICLE:
ROLE OF COMMUNICATION SKILLS AND EMPATHY WORKSHOP IN IMPROVING PATIENT SATISFACTION: A QUASI-EXPERIMENTAL STUDY

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ABSTRACT

OBJECTIVE
To compare the effectiveness of communication skills workshop, empathy workshop, and a combined workshop of communication skills and empathy on patient satisfaction.
STUDY DESIGN
Quasi-experimental study
PLACE AND DURATION OF STUDY
HITEC Institute of Medical Sciences, Taxila, Pakistan, from April 2024 to April 2025.
METHOD
Sixty doctors (medical officers, postgraduate trainees and physicians from Medicine and Allied and Surgery and Allied specialties) were divided into four groups of 15 each: empathy workshop, communication skills workshop, combined workshop and control (no workshop). Each workshop was a half-day session comprising lectures, handouts, video-based learning and role-play. Patient satisfaction was assessed using the Doctor Interpersonal Skills Questionnaire (DISQ) from 240 patients (60 per group; 44.2% males, 55.8% females; age 18-65 years (Mean= 35.84 ± 12.5). data were analysed using one-way ANOVA and Games-Howell post-hoc test in SPPSS version 21.
RESULTS
Patients treated by physicians who attended the combined workshop reported the reported the highest satisfaction (Mean=55.63 ± 2.62), followed by the communication skills group (Mean=51.73 ± 3.04), empathy group (Mean= 43.92 ± 5.01), and control group (Mean=39.70 ± 9.46). The overall group difference was statistically significant [$F(3,236)=96.36$, $p < 0.001$, $\eta^2=.55$]. All pairwise comparisons were significant ($p<.05$).
CONCLUSION
A combined workshop on communication skills and empathy was most effective in improving patient satisfaction. Communication skills training alone was more effective than empathy training alone. These interpersonal skills are essential components of medical practice and are particularly relevant to behavioural sciences education, where communication and empathy are central to clinical practice.

KEYWORDS
Communication; Empathy; Physician-Patient Relations; Patient Satisfaction; Medical Education; Behavioural Sciences.

INTRODUCTION
On a global scale, patient satisfaction has emerged as a crucial benchmark of healthcare quality and is increasingly used to guide improvements in healthcare delivery. Once considered a marginal aspect of healthcare, patient satisfaction is now gaining importance as a valuable metric for evaluating how well

healthcare systems are working.[1] The term patient satisfaction is often confused with patient experience; although the two are distinct yet related concepts.[2] Bull defines patient experience as relating to certain incidents and the treatment received, whereas patient satisfaction reflects the subjective assessment of those incidents. Both dimensions co-exist and play a significant role in the perceived quality of care.[2] In addition to being a key metric of assessing healthcare quality, Ferreira et al. note that patient satisfaction is also closely linked to improved health outcomes, as higher patient satisfaction leads to better treatment adherence, increased patient engagement, and improved trust in health care providers.[1] Therefore, assessing patient satisfaction is crucial for understanding the effectiveness of healthcare services and guiding continual improvements in clinical practice.

Based on the literature reviewed above, the importance of patient satisfaction in healthcare effectiveness is indisputable, and it thus necessitates studying the factors that influence it. Donabedian's widely recognized structure-process-outcome model for assessing healthcare quality provides an insightful approach in this context.[3] Donabedian conceptualised healthcare quality in three inter-related domains and identified patient satisfaction as a key outcome.[1] Additionally, the interdependence of these domains highlights how improving one domain can have a favorable impact on the others. The process domain of this model, in particular, includes the competencies and skills of healthcare workers, which are key factors in determining patients' experiences and perceptions of treatment. These competencies include the soft skills of a healthcare provider. Among these, communication skills and empathy of healthcare providers are of paramount importance as they form the basis of a therapeutic alliance.

Communication is defined as the exchange of ideas, thoughts, and information, either verbally or non-verbally, between two or more people. It involves active listening, speaking, and non-verbal cues like gestures and body language.[4] Numerous studies have highlighted the importance of effective patient-physician communication. For instance, in a study of hepatitis patients, Naz et al. found that improved doctor-patient interactions lead to greater overall satisfaction.[5] Another study reported that patient satisfaction increases when the nursing staff members demonstrate strong communication skills.[4] These findings strongly support the role of communication skills of healthcare providers in enhancing patient satisfaction. Similarly, clinical empathy, defined as the capacity to understand the viewpoints and experiences of a patient and to communicate that understanding effectively,[6] is also seen as a critical component of the therapeutic relationship between a doctor and patient. Numerous studies have demonstrated that improving doctor's empathy can foster a more harmonious therapeutic interaction.[7]

Communication entails expressing feelings, emotions, needs, and expectations, all of which require empathy for the patients.[7] Hence, communication skills and empathy don't exist in isolation, and their combined effect warrants investigation. Despite the recognised importance of communication skills and empathy, the combined effect of these factors on patient satisfaction has not been fully explored, particularly in the context of Pakistani hospitals. The current study was thus conceptualised with the following objective to compare the effectiveness of a communication skills workshop, empathy workshop, and a combined workshop of communication skills and empathy on patient satisfaction. It was hypothesised that patients treated by doctors participating in a combined workshop of communication skills and empathy would report higher patient satisfaction compared to those treated by doctors in the other three groups.

METHOD

Study Design & Participants

The current research was a quasi-experimental study conducted at HITEC Institute of Medical Sciences, Taxila, Pakistan, over a period of 12 months from April 2024 to April 2025, following approval from the Ethical Review Board of HITEC Institute Medical Sciences (ref. no. HITEC-IRB-47-2024, dated 17th April 2024). Participants included medical officers, postgraduate trainees, physicians from various clinical and surgical specialties (Medicine & Allied and Surgery & Allied) at HITEC Institute of Medical Sciences who were directly involved in patient care, as well as and patients reporting to the outpatient department (OPD) under these specialties.

Doctors and physicians who had attended a workshop on empathy or communications skills within the past year were excluded. To assess patient satisfaction, patients aged 18-65 years were included, while those with acute psychosis and language barriers were excluded.

Sample size calculation was done using G*Power to detect a medium effect size(f=0.25) at a 95% confidence level (α=.05) and 80% power for a one-way ANOVA with four groups. A total of 240 patients were included, with 60 participants recruited for each group.

Data Collection and Procedure

The doctors were divided into four groups of 15 doctors each, from various clinical and medical specialties (Medicine & Allied and Surgery & Allied). One group attended a workshop on empathy, the second attended a workshop on communication skills, and a third attended a combined workshop. The fourth group served as the control group and did not attend any workshop. Allocation was based primarily on doctors' availability and willingness to participate in the respective workshops. To minimise potential specialty-related clustering, care was taken to ensure that no single group was composed predominantly of physicians from one specialty.

Each workshop was conducted as a half-day session, and included structured lectures on empathy building and communication skills supplemented by handouts, video-based learning and role-play exercises. For data collection, informed consent was first obtained verbally from all the patients after the study objectives were explained to them. Data were collected using the Doctor Interpersonal Skill Questionnaire (DISQ) from patients treated by doctors in each group after the doctors had attended the workshop.

DISQ is a 12-item questionnaire that measures how patients perceive the humanistic and communicative behavior of healthcare providers during consultations. A 5-point Likert scale is used to grade items, with 1 denoting "poor" and 5 denoting "excellent." The score ranges from 12 to 60. The Cronbach's alpha reliability of the DISQ for the current study was .89.

Data were analysed using SPSS, version 21. One Way ANNOVA was used to compare the means of all four groups.

RESULTS

The sample included 106 males (44.2%) and 134 females (55.8%), with a mean age of 35.84 years (SD=12.5). Normality of data was assessed using skewness and kurtosis statistics. The values reported (-.95 for skewness and .82 for kurtosis) were within the acceptable range of ±1, indicating the data were approximately normally distributed. [8]

The following section presents the results of the one-way ANOVA.

Table 1
One Way ANOVA for Group Differences in Patient Satisfaction (N=240).

Variables	Control Group n=60		Empathy Workshop n=60		Communication Skills Workshop n=60		Combined Workshop n=60		F(3,236)	p	η^2
	M	SD	M	SD	M	SD	M	SD			
PS	39.7	9.46	43.92	5.01	51.73	3.04	55.63	2.62	96.36	<.001	.55

Note. M = Mean; SD = Standard Deviation; η^2 = eta squared (effect size). $p < .001$.

Table 1 shows the results of one-way ANOVA comparing the means of the four groups. The results were statistically significant [F (3, 236) =96.36, p<.001]. The effect size for the between-group differences was large (η^2=0.55) indicating that 55% of the variance in patient satisfaction was accounted for by the type of workshop attended. To establish which groups differed significantly, post-hoc analysis using Games-Howell was performed (Table 2).

Table 2
Post-Hoc Analysis (Games Howell Test) for Patient Satisfaction Across Different Intervention Groups (N=240).

(I) Intervention Group	(J) Intervention Group	Mean Difference (I-J)	p-value
Control	Empathy	-4.217*	.016
	Communication Skills	-12.033***	<.001
	Combined	-15.933***	<.001
Empathy	Communication Skills	-7.817***	<.001
	Combined	-11.717***	<.001
Communication Skills	Combined	-3.900***	<.001

Note *p<.05, *** p<.001

Table 2 shows the results of post-hoc analysis using Games-Howell test. All pairwise comparisons among the four intervention groups were statistically significant (p<.05).

DISCUSSION

The importance of communication skills and empathy among medical staff in determining patient satisfaction is well supported in the literature.[9,10] The primary objective of the present study was thus to compare the effectiveness of three different workshops (empathy, communication skills, and a combined workshop on empathy and communication skills) on patient satisfaction. It was hypothesised

that patients managed by physicians who participated in the combined workshop would report greater satisfaction. One way ANOVA revealed a statistically significant difference between the group means, and post-hoc analysis using Games-Howell test indicated that patients treated by physicians who attended the combined workshop reported higher satisfaction scores compared to the other groups. Consequently, the null hypothesis was rejected. However, causal inferences should be drawn carefully due to the quasi-experimental design and absence of baseline measurements. In the context of healthcare providers, Rawat et al. reported similar findings, suggesting that empathic communication between nurses and patients enhances patient satisfaction.[11] Similarly, Broadbridge et al. also found that patients' perceptions of empathic communication by healthcare providers were associated with better psychological adjustment among cancer patients.[12] Consistent with these findings, the present study supports the importance of empathic communication in the healthcare sector and demonstrates its relevance in Pakistani settings.

Another key finding of the current study was that patients treated by physicians who attended the communication skills workshop reported higher satisfaction than those treated by physicians who attended the empathy workshop. While previous studies have shown that effective communication [13, 14] and physician's empathy [13, 15] independently improve patient satisfaction, the present study provides a comparative perspective suggesting that patients may place greater emphasis on clear and effective communication than on empathy. Although empathy is an important aspect of a doctor-patient relationship, it is insufficient if the information patients need is not delivered clearly and effectively. Therefore, effective communication remains crucial for improving patient satisfaction to a greater extent.[16]

These present findings are especially relevant to behavioural sciences education. Communication and empathy are being recognised as core competencies in medical training, and behavioral sciences curricula emphasise the interpersonal dimensions of clinical care. The outcome that a combined communication-empathy workshop produced the greatest improvement in patient satisfaction highlights the value of integrated interpersonal skills training. Integration of such training into behavioural sciences teaching would help equip medical students and trainees with the communication and empathic skills needed for effective clinical practice.

LIMITATIONS

The study was conducted in a single-centre that may affect generalisability. It used a post-intervention design without baseline measurements, restricting causal inference. Group allocation was based on doctors' availability instead of randomisation, and patients were not blinded to the doctor's workshop attendance, which introduced possible selection and social desirability bias. Confounding factors such as clinical experience, pre-existing communication and empathy skills, consultation duration, and patient characteristics were not assessed. Future studies should be multi-centred and randomised, with blinded assessment that includes baseline measurements.

CONCLUSION

This study highlights the importance of physicians' communication skills and empathy in enhancing patient satisfaction and reinforcing therapeutic relationships. The highest satisfaction scores among

patients treated by physicians who received combined training indicate the significance of integrating both competencies into medical education and clinical practice. Medical institutions should therefore embed structured, practical training in communication and empathy in undergraduate and postgraduate curricula, especially in behavioural sciences education, to develop these competencies systematically rather than incidentally for better patient-centred care.

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CONFLICT OF INTEREST
None

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AUTHOR(S) CONTRIBUTION / UNDERTAKING FORM

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2	Mehwish Sultan	Department of Psychiatry, HITEC Institute of Medical Sciences, Taxila, Pakistan.	Literature review, data collection, data analysis, manuscript writing
3	Hasiba Rasheed	Department of Psychiatry, HITEC Institute of Medical Sciences, Taxila, Pakistan.	Data collection, data analysis, methodology