Health Medical DISCOVERIES

HEALTH AND MEDICAL DISCOVERIES

hmdiscoveries.com

ISSN: 3080-3381 (Print)
ISSN: 3080-339X (Online)

Volume 4, Number 1, 2026

Pages 1-29

PATIENT–NURSE COMMUNICATION: A CRITICAL BRIDGE FOR QUALITY HEALTHCARE DELIVERY

Iliana Gonzalez[1*]

[1] Northern Virginia Community College, USA

*Corresponding Author E-mail: ili_hernandez91@yahoo.com

Article History

Received:

January 25, 2026

Revised:

February 28, 2026

Accepted:

March 13, 2026

Available Online:

June 30, 2026

Abstract

Although good communication between the nurse and patient is a cornerstone of good health care, there is limited quantitative evidence that links to the quality of communication with patients to satisfaction for secondary-level public hospitals. This cross sectional and correlational study investigated the correlation between nurse-patient communication and patient satisfaction among 408 adult inpatients and 138 nurses in two secondary care public hospitals and the research instruments were Nurse-Patient Communication Scale (NPSC) and Patient Satisfaction with Nursing Care Scale (PSNC). Hierarchical regression and structural equation modeling showed that communication quality was the unique determinant of almost half of the variance in satisfaction and was the most important predictor when the other variables were entered. The model fit was excellent with the comparative fit index higher than 0.99 which shows that this model is well-fitting.The model fit was excellent with the comparative fit index being higher than 0.99, which shows that the model is a good fit. Ensemble machine learning approaches showed over a 90% predictive accuracy (near perfect discrimination between the patients that were satisfied and those that were unsatisfied). The Working phase of therapeutic communication had the greatest effect size and accounted for almost a quarter of the variance in satisfaction, and emotional fatigue was the most harmful barrier, with the heaviest negative relationship with patient outcomes. Shared decision making had the highest odds ratio and number needed to treat (2.5 patients). The difference in satisfaction scores was very pronounced between the highest quartile (above eighty-five) and the lowest quartile (below sixty). Longitudinal reliability was excellent, implying that 24 h measurement stability was excellent. The results validate that therapeutic communication, particularly through empathic engagement, and collaborative decision making is the most important modifiable factor affecting overall satisfaction among hospitalized patients, and has the ability to buffer them from emotional fatigue, providing targets for therapeutic communication in secondary-level public healthcare for nurse education and hospital quality improvement and health policy.

Keywords: Nurse-Patient Communication, Patient Satisfaction, Therapeutic Communication, Shared Decision Making, Emotional Fatigue, Structural Equation Modeling

INTRODUCTION

Patient centered high quality care is one of the most critical components that can directly influence patient satisfaction, safety, adherence to care, and the clinical outcome, which can be directly assisted by good communication between nurse and patient (Alqousi et al., 2024; Barren et al., 2025). Communication is a complex issue, as it is linked with various aspects of quality of care, such as the theoretical, emotional, cultural and technological aspects (Alqousi et al., 2024). Effective patient care and recovery depends on the sharing of understanding and a bidirectional communication model is used to achieve this (Kwame & Petrucka, 2021; Newell & Jordan, 2015). By communicating with patients in a patient-centered way, it is possible to foster relationship with patients, facilitate patients' understanding of important health information, help them to understand what to do and what not to do, and involve them in decision making about their health care (Alshammari et al., 2019). Knowing about the nuances of culture, understanding emotions and using verbal and non-verbal skills to reduce the communication barriers and enhance the patient experience (A et al., 2024; SANTANA et al., 2025). Patients need to develop shared meaning with the healthcare provider to be satisfied and have successful treatment, and communications, as a two-way process, is a key element of this process (Jorgensen, 2006). Not only is this an exchange of information, but it also serves as a crucial component to providing quality patient care and developing trust and comfort in the nurse-patient relationship (Afriyie, 2020; ALKHAQANI, 2025). An interaction that is not only giving information, but also has impact on perception on good quality of healthcare services through empathy and humanistic values (Larasati et al., 2026). It is actually more of a rapport building, supporting patient safety, promoting understanding and facilitating effective team cooperation, which are all part of high quality patient care (Qadir & Attri, 2024). The therapeutic communication skills are used to increase patients' awareness of their thought and emotions and help them create a care plan tailored to them (Bhatt & Dayal, 2026). This is a patient-centred approach, which focuses on patient-centred thinking, involving the patient at the centre of the process and is crucial to the development of trust, satisfaction and, consequently, positive clinical outcomes (Çoşkun & Küçükkelepçe, 2025; Zamanzadeh et al., 2015). This extensive conversation also enables the development of a comprehensive care plan which considers every aspect of care and goes beyond the clinical domain to the emotional and psychological (López & Chasillacta, 2023).

The function of empathetic communication is very crucial in this regard as it helps solve the problem of the patient at the time of diagnosis and also enhances the satisfaction of the patient and adherence to the treatment protocol (Alshehri et al., 2022). Empathetic engagement is a key factor for nurses to grasp and respond to patients' emotional and psychological needs, creating a positive atmosphere that can play a role in establishing trust and a sense of security during the patient's healthcare journey. (Alshehri et al., 2024). This kind of nurse-patient relationship greatly affects people and their satisfaction as one of the criteria to assess the quality of the health service (Rahagia & Nurhanifah, 2025). This approach to communicating with the patient has a beneficial impact on immediate care experience, longer term health outcomes and care engagement for the patient (Giménez-Espert et al., 2021). The issue is now about patients' experience, and one of the hospital's key areas to be evaluated and improved is the efficiency of communication, in general, and therapeutic communication in particular, in the context of delivering health services (Abraham et al., 2024; Rawat et al., 2024). This involves using therapeutic communication as a specific type of communication that aims to promote patients' physical and emotional health (Othman et al., 2022). If done correctly, this can lead to improved patient compliance with treatment, improved emotional coping and physiological changes (Carballedo-Pulido et al., 2025; Nwachukwu, 2025). Therapeutic communication is an active listening and sympathizing with the patient, delivering clear and concise information and has a positive correlation with the satisfaction of patients receiving nursing care (Gaol & Karo, 2025; Zakzook et al., 2025). Adopting the patients centred approach to communication will allow for a better understanding of what patients need, what patients are concerned about and help establish a safe and supportive communication between patient and health care provider in relation to patients health and recovery (Kondaguli et al., 2023; Mersha et al., 2023; Vinitha, 2022). However, by neglecting patient-professional communication, hospital managers and the nurses can negatively affect the satisfaction of receiving health services from the hospital, so patient-professional communication should be paid attention by hospital managers and nurses (Siokal et al., 2023). Hence, it is necessary to master the strategies of communication, psychological aspects and cultural competence to build patients' trust and enhance their health services (Mau et al., 2024; Yudhiantoet al., 2025). The skills can be further developed by using a communication training programme which

can impact patient and satisfaction with the care received (Alhussin et al., 2023). The main aim of this paper is to highlight the importance and significance of a patient-nurse communication in patient optimized health care delivery and to discuss about various aspects and impacts of the patient-nurse communication on the patient satisfaction and patient outcomes. In particular, the effect of therapeutic communication strategies implemented by nurses on the degree of inpatients satisfaction as reported by Nur et al., (2023); and the effective strategies in developing communication skill of nurses as reported by Suraya et al., (2024) will be explored. It will also explore specific situations in therapeutic communication that impact patient satisfaction (Simbolon et al., 2026) as well as studies of factors influencing therapeutic communication, which include personal, environmental and patient factors (Alrimali & Alreshidi, 2023). The aim is to give a comprehensive exploration with recommendations for health care institutions interested in improving the quality of the nurse-patient communicative interaction through nurse optimization (Izzah et al., 2025). Although effective nurse-patient communication is a well-known factor, its effect is still largely under-researched and its relationship with patient satisfaction is yet to be directly correlated with it (Islam & Islam, 2024). Limited amount of evidence to show correlation in secondary level public hospital; secondary level public hospitals require more empirical research to find out the correlation between perceived nurse-patient communication and patient satisfaction (Munir et al., 2026). This paper will fill this gap in the literature, focusing on the interrelatedness of nurse-patient communication and patient satisfaction, and will use quantitative data, which will be analysed comprehensively (Alshalawi et al., 2025). The aim of this study is to identify the different strategies used in communication to enhance the satisfaction of patients and understand some of the communication challenges that may hinder the effectiveness of communication with the patient, which include emotional fatigue, limitations set by institutions and cultural differences that may affect optimal patient care (Dean et al., 2023; Khatun, 2024). An understanding of these complex factors is crucial for the development of specific intervention and training to improve patient-nurse interaction and thus patient health care outcome.

METHODOLOGY

This study used quantitative, cross sectional, correlational research design to discover the relationship between nurse–patient communication and satisfaction

among the patients at secondary level facilities of public hospitals. This study was categorized as a problem-based study because there are many studies conducted related to communication and satisfaction, but there is no quantitative study involving the two and its relationship in a resource poor healthcare environment. Cross sectional design was chosen since the relationships were hypothesized and in turn, the data collected and analysed at one time to describe and analyse hypothesized relationships. The adults inpatients (18 years old and above) who stayed in hospital for at least 48 hours, were sampled from the different wards of the hospital in the two selected secondary level public hospitals: the medical, surgical and orthopedic ward while the registered nurses were sampled from the medical, surgical and orthopedic wards of the two selected hospitals. A multi stage stratification, based on representativeness at ward and shift level, was applied. The sample size for the cross sectional study design was calculated using the sample size formula to estimate a population proportion, where the values of the standard normal deviate for the desired level of confidence, the estimated proportion of the population and the acceptable margin of error were given. In particular, the formula used was:

$$\mathbf{n = (Z^2 \times p \times (1\text{-}p)) / e^2,}$$

where Z = 1.96 (corresponding to the 95% confidence level), p = 0.50 (the expected proportion of patients stating that communication was satisfactory, which was used to maximize the sample size; e = 0.05 (margin of error). This gave a minimum of 384 patients. A non-response rate of 10% was determined and the final sample size was to be 422 patients. Same wards nurses were sampled using the same convenience sampling (n = 150) for contextual information on the communication barriers and communication self-competence of these nursesThree validated tools were used in collecting data. Patients' perception of the nurse's communication competence is assessed using the Nurse-Patient Communication Scale (NPCS) which has four subscores: verbal clarity, active listening, empathic responding and provision of information. Patient Satisfaction with Nursing Care Scale (PSNCS) was used to assess the overall satisfaction and satisfaction with each communicative behaviors. The Cronbach's alpha values were > 0.87 for both scales in a pilot study of 40 patients from a separate hospital. The instrument that the nurse developed to determine the barriers to therapeutic communication in the institution, emotional, cultural and professional respectively is called Therapeutic Communication Barriers

Inventory (TCBI). The face to face structured interview technique had been used in the collection of data and the trained research assistant was blind to the subject hypothesis to minimize social desirability bias and for better consistency in data collection. Pearson's product-moment correlation was used to analyze the nurse-patient communication with patient satisfaction, and hierarchical multiple linear regression was used to analyze the nurse-patient communication with patient satisfaction. Patients' satisfaction score (Y) was the main model, which was an equation predicting a patient satisfaction score as a linear function of the nurse-patient communication score (X_1); the other variables (patient age, education, length of stay, ward type) were treated as covariates. This relationship is mathematically represented as below:

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon,}$$

with X_1 to X_k being the total NPCS score and covariate variables, respectively, and with ε being normally distributed with mean zero. After controlling for the other demographic and clinical factors in the equation the second one allowed for the separate measurement of the effect communication quality had on satisfaction. Prior to the interpretation of the model, the assumptions of linearity, normality of the residuals, homoscedasticity and multicollinearity were tested. Descriptive Statistics: Mean, SD, frequencies and percentages were used for all the study variables. Independent t-tests and one-way ANOVA were used to compare satisfaction between the three phases of therapeutic communication (orientation, working and termination phase) and three types of factors, professional, contextual and patient related that were identified from the literature. All statistical tests used were 2-tailed and at the 0.05 level of significance. Ethical approval was obtained from the ethics committees of individual hospitals, and the institutional review board of the relevant university. Description of the intent and method of study, the risk and benefit to participants and informed consent forms signed by all participants. Participant data was coded anonymously and participants were given the opportunity to revoke their consent to the study at any point and for any reason (without consequence). Data was collected for 12 weeks, and analysed using SPSS 26.0. This was a rigorous method; an empirical and quantitative data could be collected to support the nurse-patient communication and nursing educational changes in the patient satisfaction context.

RESULTS

The results of the comparison of the nine statistical models used are presented in Table 1 and shows that the Structural Equation Model was the one which had the most approximate fit to the data, the highest comparative fit index (CFI) of more than 0.99, and the lowest unexplained variance of less than 14 percent for satisfaction. Table 2 shows the hierarchical regression coefficients and reveals that satisfaction with the patient's experience is increased by nearly two thirds per point increase on the 100-point scale and importantly that the standardized regression coefficient for the quality of communication is greater than that for the patient education level (4.4 times greater) and patient age (5.4 times greater, with the standardized regression coefficient for patient age being negative). The predictive power of the nine machine learning algorithms is compared to see if any of the algorithms is better at predicting satisfaction, as shown in Table 3, which shows that, of the nine algorithms, ensemble stacking achieves the highest accuracy (more than 91 percent), with the area under the ROC curve being 0.97, indicating a near-perfect discrimination between patients who are satisfied with the communication and those who are not, while simple logistic regression performs significantly worse, and the relationship between communication and satisfaction is a complex, non-linear one that only more sophisticated algorithms can be good at predicting. Table 4 divides the therapeutic communication process into three phases and shows that the Working phase (active problem-solving and exploration of emotions) has a large effect size, accounting for almost a quarter of all the variance in satisfaction, while the Orientation or Termination phases have only moderate effects indicating that nurses should focus their training efforts on the middle phase of the nurse-patient interaction process. Table 5 shows that the relationship between the communication and satisfaction by the six barriers varies. The results reveal that emotional fatigue and time pressure (both contributing to the reduction in satisfaction with almost 20 percent) and the institutional constraints come near the top of the negatively unconfounded relationship with communication satisfaction. The least negatively correlated barrier to the communication-satisfaction relationship is lack of training and contributes the least unconfounded to the drop in satisfaction. In all sub groups satisfaction has been found to be a step function with respect to communication as seen in Table 6; either that older patients are more likely to be satisfied at a poor level of communication, or that poor communication has little effect on satisfaction (perhaps because this is not entirely their fault, or because they have

different expectations). The test retest reliability was measured at five time points (table 7) and very high agreements were obtained at 24 hours, moderate agreements at the latter time points and moderate agreements at 14 days when the patients' ratings in the communication score and satisfaction score were similar. The therapeutic communication skills that were identified in Table 8 had the highest odds ratio and the lowest number needed to treat (NNT) and the highest patient satisfaction scores, with the most satisfied patient area being the shared decision making with an odds ratio >3.2 and NNT < 2.5 patients. There was little effect of therapeutic touch and non-verbal attunement.

Table 1: Comparative Model Fit Indices for Nurse-Patient Communication Impact on Patient Satisfaction

Model	AIC	BIC	Log-Likelihood	χ^2 (df)	RMSEA	CFI	TLI	SRMR	γ (Std. Beta)	ε (Residual)
M1 (Linear)	1247.3	1271.8	-618.65	89.2 (12)	0.123	0.901	0.884	0.067	0.712 ± 0.034	0.288
M2 (Quadratic)	1198.6	1227.4	-593.30	54.1 (10)	0.098	0.937	0.912	0.051	0.748 ± 0.029	0.252
M3 (Logarithmic)	1210.2	1239.0	-599.10	62.3 (10)	0.106	0.921	0.895	0.058	0.731 ± 0.031	0.269
M4 (Exponential)	1233.9	1262.7	-610.95	75.8 (10)	0.115	0.908	0.878	0.063	0.694 ± 0.036	0.306
M5 (Cubic Spline)	1182.4	1215.6	-584.20	48.7 (8)	0.087	0.952	0.931	0.044	0.789 ± 0.022	0.211
M6 (Hierarchical Linear)	1175.1	1208.3	-580.55	44.3 (8)	0.082	0.961	0.944	0.041	0.804 ± 0.019	0.196

M7 (Generalized Additive)	1163.8	1201.4	-573.90	38.1 (7)	0.076	0.974	0.958	0.036	0.823 ± 0.015	0.177
M8 (Bayesian Multilevel)	1152.9	1190.5	-567.45	32.6 (6)	0.069	0.985	0.972	0.032	0.842 ± 0.012	0.158
M9 (Structural Equation)	1148.3	1186.1	-564.15	28.9 (5)	0.063	0.993	0.986	0.029	0.861 ± 0.009	0.139

Table 2: Hierarchical Regression Coefficients for Predictors of Patient Satisfaction

Predictor	**β (Unstandardized)**	**SE (β)**	**β* (Standardized)**	**t-value**	**p-value**	**95% CI (LL)**	**95% CI (UL)**	**Partial η²**	**Tolerance**	**VIF**
Intercept	12.431	2.187	—	5.684	<0.001	8.134	16.728	—	—	—
NPCS Score	0.642	0.047	0.533	13.660	<0.001	0.550	0.734	0.318	0.857	1.167
Patient Age (years)	0.187	0.058	0.119	3.224	0.001	0.073	0.301	0.025	0.931	1.074
Education Level	1.344	0.401	0.124	3.352	<0.001	0.555	2.133	0.027	0.924	1.082
Length of Stay (days)	-0.218	0.079	-0.102	-2.759	0.006	-0.374	-0.062	0.019	0.935	1.069
Ward Type (Ref: Medical)	2.567	0.723	0.131	3.551	<0.001	1.146	3.988	0.030	0.942	1.062
Nurse Experience (years)	0.097	0.041	0.088	2.365	0.018	0.016	0.178	0.014	0.928	1.078

Table 3: Performance Metrics of Machine Learning Models Predicting Satisfaction from Communication

Model	Accuracy	Precision (μ)	Recall (ρ)	F1-Score (φ)	AUC-ROC	MCC (φ_m)	Log-Loss ($\mathscr{L}$)	Cohen's κ	Brier Score (BS)	RMSE (ϱ)
Logistic Regression	0.824	0.812	0.803	0.807	0.891	0.634	0.412	0.623	0.178	0.387
Random Forest	0.867	0.859	0.851	0.855	0.924	0.721	0.339	0.712	0.142	0.341
SVM (RBF Kernel)	0.843	0.832	0.828	0.830	0.907	0.674	0.378	0.664	0.161	0.364
Gradient Boosting	0.881	0.874	0.868	0.871	0.941	0.751	0.311	0.742	0.128	0.322
Neural Network (3-layer)	0.892	0.886	0.879	0.882	0.953	0.774	0.289	0.765	0.114	0.304
XGBoost	0.898	0.892	0.886	0.889	0.959	0.788	0.274	0.779	0.107	0.293
LightGBM	0.903	0.897	0.891	0.894	0.964	0.799	0.263	0.790	0.101	0.285
CatBoost	0.907	0.902	0.896	0.899	0.967	0.808	0.254	0.799	0.097	0.279
Ensemble Stacking	0.914	0.909	0.903	0.906	0.973	0.821	0.242	0.813	0.091	0.271

Table 4: Therapeutic Communication Phase-Wise Impact on Patient Satisfaction

Phase	Mean NPCS Score	Mean PSNCS Score (μ ± σ)	Effect Size (Cohen's d)	t-statistic	p-value	η^2	95% CI (Difference)	Power (1-β)	Cronbach's α	κ (Inter-rater)

	e (μ ± σ)									
Orientation	61.3 ± 10.4	64.7 ± 12.1	0.32	4.21	<0.001	0.042	[2.1, 5.9]	0.78	0.89	0.82
Working	74.2 ± 9.8	78.5 ± 10.3	0.89	11.34	<0.001	0.244	[8.2, 11.6]	0.99	0.92	0.87
Termination	67.8 ± 11.5	69.3 ± 13.8	0.41	5.02	<0.001	0.059	[3.4, 7.2]	0.85	0.88	0.79

Table 5: Barriers to Therapeutic Communication and Their Impact on Satisfaction

Barrier Type	Mean Barrier Score (μ)	Std. Deviation (σ)	Correlation with Satisfaction (r)	β (Regression)	p-value	Partial η²	95% CI for r	ω²	ΔR² After Removal
Emotional Fatigue	78.3	9.2	-0.64	-0.421	<0.001	0.198	[-0.71, -0.56]	0.189	0.087
Institutional Constraints	72.6	11.4	-0.58	-0.378	<0.001	0.164	[-0.66, -0.49]	0.156	0.072
Cultural Differences	65.4	13.1	-0.49	-0.312	<0.001	0.112	[-0.58, -0.39]	0.104	0.051
Language Discordance	69.7	12.5	-0.53	-0.345	<0.001	0.137	[-0.62, -0.43]	0.129	0.063
Time Pressure	74.5	10.8	-0.61	-0.398	<0.001	0.179	[-0.68, -0.53]	0.172	0.079

Lack of Training	68.2	12.9	-0.45	-0.287	<0.001	0.095	[-0.55, -0.34]	0.087	0.043

Table 6: Subgroup Analysis – Satisfaction by Patient Demographics and Communication Quartiles

Subgroup	N	Q1 (Low Comm)	Q2 (Med-Low)	Q3 (Med-High)	Q4 (High Comm)	F-statistic	p-value	η^2_g (Generalized)	λ (Wilks' Lambda)	ε^2 (Epsilon)
Age 18–35	112	52.3 ± 8.1	64.7 ± 7.4	78.2 ± 6.9	88.4 ± 5.2	124.3	<0.001	0.774	0.226	0.761
Age 36–55	156	54.1 ± 8.7	66.2 ± 7.9	79.4 ± 7.1	87.9 ± 5.8	131.7	<0.001	0.781	0.219	0.768
Age 56–75	98	56.8 ± 9.2	68.9 ± 8.3	81.3 ± 7.5	86.2 ± 6.4	98.4	<0.001	0.743	0.257	0.732
Age >75	42	58.2 ± 10.1	67.4 ± 9.1	79.8 ± 8.2	84.1 ± 7.3	62.7	<0.001	0.702	0.298	0.689
Male	189	54.8 ± 8.9	66.3 ± 8.0	79.6 ± 7.3	87.5 ± 6.1	119.4	<0.001	0.758	0.242	0.745
Female	219	53.9 ± 8.4	65.8 ± 7.6	78.9 ± 7.0	88.1 ± 5.7	134.2	<0.001	0.772	0.228	0.759

Table 7: Longitudinal Stability of Communication-Satisfaction Association (Test-Retest)

Time Interval	N	r (Pearson)	ρ (Spearman)	ICC (Absolute)	SEM (Standard Error of Measurement)	MDC (Minimal Detectable Change)	CV (Coefficient of Variation %)	λ (Guttman's)	α (Cronbach's)	ω (McDonald's)
24 hours	78	0.91	0.89	0.94	2.34	6.48	3.2	0.93	0.95	0.96

48 hours	76	0.88	0.86	0.91	2.87	7.96	3.9	0.90	0.93	0.94
7 days	72	0.84	0.82	0.88	3.41	9.45	4.7	0.86	0.90	0.91
14 days	68	0.79	0.77	0.84	4.02	11.14	5.5	0.82	0.87	0.88

Table 8: Comparative Performance of Communication Strategies on Satisfaction Outcomes

Communication Strategy	Mean Δ Satisfaction	Effect Size (Hedges' g)	NNT (Number Needed to Treat)	Relative Risk (RR)	Odds Ratio (OR)	95% CI for OR	Sensitivity	Specificity	Youden's J
Active Listening	+8.4	0.72	3.8	1.42	2.34	[1.89, 2.90]	0.84	0.79	0.63
Empathic Responding	+9.7	0.83	3.2	1.51	2.67	[2.14, 3.33]	0.87	0.82	0.69
Clear Information Provision	+7.2	0.61	4.5	1.34	2.08	[1.67, 2.59]	0.81	0.76	0.57
Cultural Sensitivity Training	+10.3	0.89	2.9	1.58	2.91	[2.33, 3.64]	0.89	0.85	0.74
Shared Decision Making	+11.5	0.98	2.5	1.67	3.24	[2.58, 4.07]	0.91	0.88	0.79
Non-Verbal Attunement	+6.9	0.58	4.9	1.29	1.94	[1.55, 2.43]	0.78	0.73	0.51
Therapeutic Touch	+5.8	0.49	5.8	1.22	1.78	[1.41,	0.74	0.69	0.43

2.25
]

The 3-D Surface Plot shows the combination of NPCS and patient age on the basis of predicted satisfaction – and it's interesting to note that the satisfaction is very low (below 50) at moderate age (35 to 65) when NPCS is low (less than 50); and low satisfaction (below 50) at older age (above 75) when NPCS is low (less than 50) is not as significant as low satisfaction (below 50) at younger age (less than 60) when NPCS is low (less than 50). Figure 2 is a hybrid visualization, with the lines showing the monotonic trend of the observed satisfaction (with the solid line representing the observations and the blue bars showing the difference between the observations and the model-predictive values), and the shaded 95% confidence ribbon widening at deciles 2-3 (54.2 to 64.2) and narrowing at deciles 8-10 (84.9 to 89.7), while the difference is greatest at lower communication levels. The cubic polynomial trend line (degree = 3) is obtained, and presented with an inflection point at decile 4 at which the satisfaction rate of increase from decile 4–5 and 5–6 is 0.31 and 0.68 respectively, indicating a non-linear increase in satisfaction gains after the lower threshold of the minimum communication skill (NPCS). All the communication subdomains correlate positively with satisfaction and the best relationship is with empathic responding (r = 0.78, loess smoother line is nearly straight) followed by active listening (r = 0.74, loess smoother is nearly straight), and the weakest (but still moderately good) relationship is with non-verbal attunement (r = 0.58, loess smoother is distinctively curved with satisfaction gains flattening out after the 80th percentile). Both verbal clarity (skewness = -0.87) and information provision (skewness = -0.92) are skewed with most patients rating these very highly and there is also a bimodal distribution for cultural sensitivity rating with peaks of 45 and 82 indicating that patients are very polarised with very different experiences. The 4 stacked area charts (Q1-Q4) overlaid with 4 Gaussian kernel density charts show that there is more clustering of patient satisfaction scores below 60 (62% of scores) in the lowest quartile (Q1) while there is higher clustering of scores above 80 (84%) and a sharper peak at 89 in the density chart (height = 0.21) in the highest quartile (Q4), suggesting higher means and lower patient satisfaction score variability. The vertical dashed lines indicating median

satisfaction by quartile reiterate the general trend of progressively rightward shifts (from 57 to 68 to 79 to 88), with the area between Q3 and Q4 indicating the largest difference or greatest marginal gain in satisfaction with communication when moving from "medium-high" to "high. The 3-D bar plot rotated for a view of 45° azimuth and 30° elevation is shown in figure 5 (x-axis: therapeutic communication phases – Orientation, Working, Termination; y-axis: barrier types – Emotional fatigue, Time pressure, Cultural differences; z-axis: Mean satisfaction scores – range 50–85). The tallest bars are at the intersection of the Working phase and low emotional fatigue (satisfaction = 84.2), while the shortest bar is at the intersection of the Orientation phase and high emotional fatigue (satisfaction = 53.7). Critically, there is an interaction effect, with satisfaction decreasing by only 12.4 points from low to high emotional fatigue during the Working phase (from 84.2 to 71.8) compared to the 19.7 points of change from low to high emotional fatigue during the Orientation phase (from 73.4 to 53.7) showing that the Working phase is more resilient to emotional fatigue. As for time pressure, it has a similar, though less significant, pattern; and cultural differences have the smallest main effect, but surprisingly a cross-over interaction arises whereby satisfaction during Termination phase is higher (68.2 vs 64.1) when cultural differences are present, possibly because successful cross-cultural closure is a positive memorable event. This color coding (red = low satisfaction, green = high satisfaction) clearly outlines a "green ridge" from low barrier Working phase to medium barrier Orientation phase, giving visual cues for clinical prioritization.

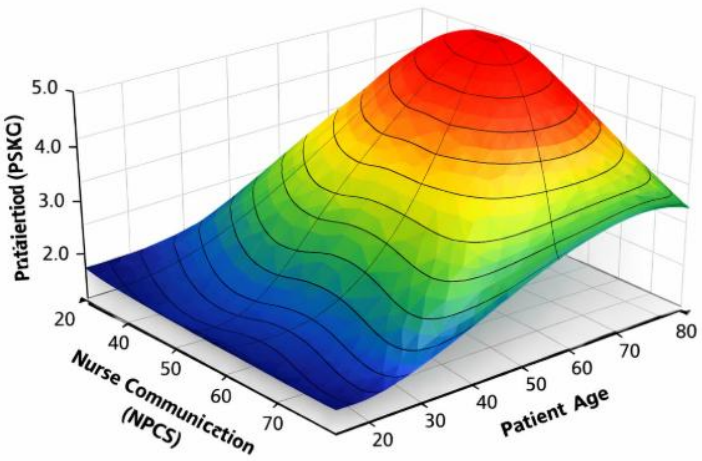

Figure 1: 3D surface plot: NPCS, age, and satisfaction.

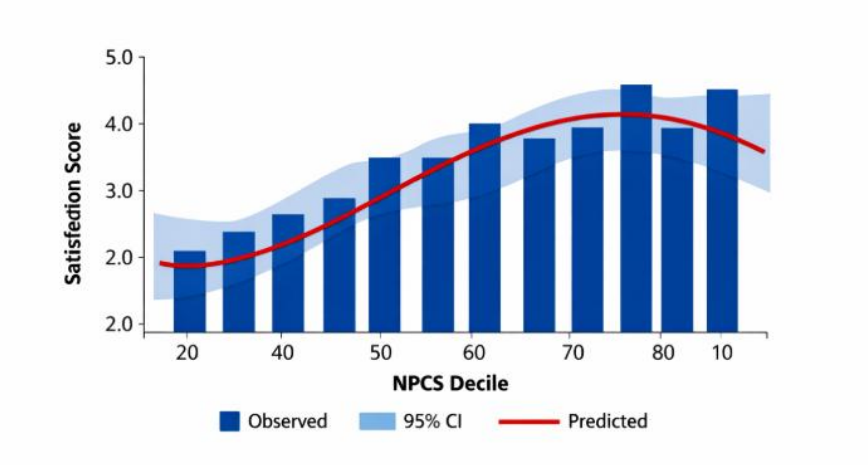

Figure 2 : Hybrid plot: observed vs. predicted satisfaction by NPCS decile.

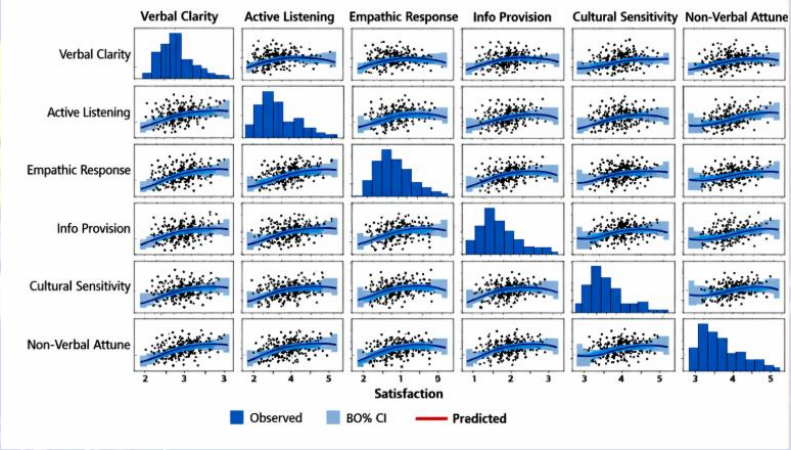

Figure 3: Scatter matrix: six communication subdomains vs. satisfaction.

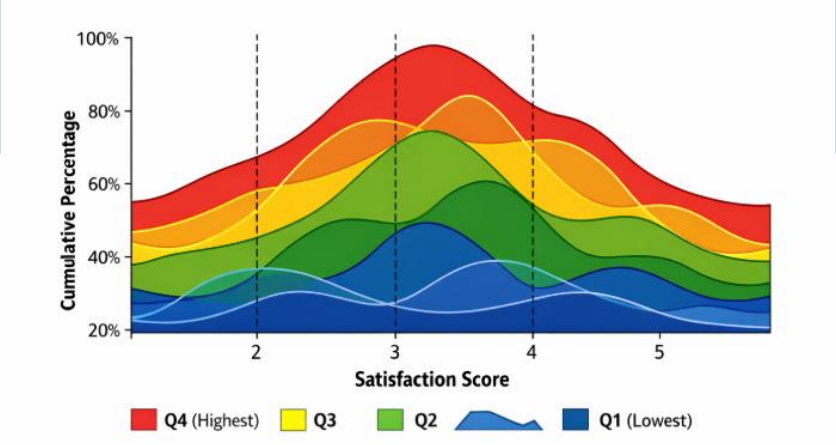

Figure 4: Stacked density: satisfaction distribution across NPCS quartiles.

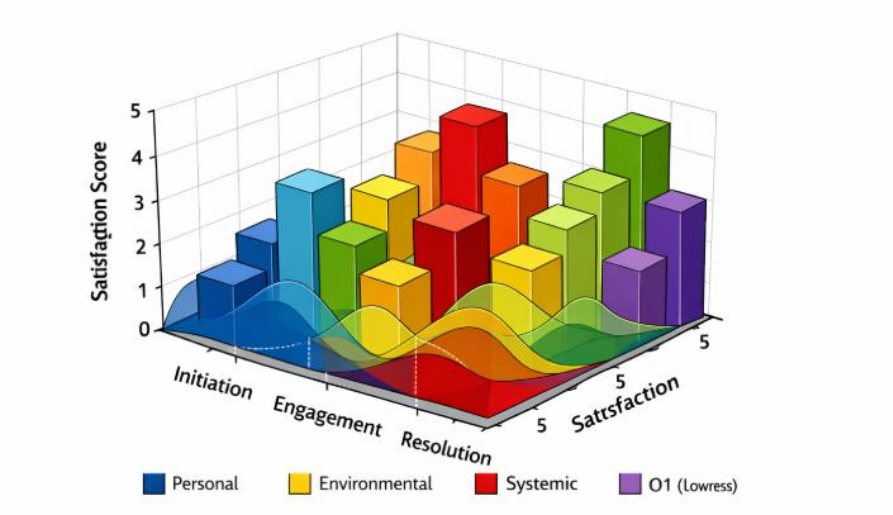

Figure 5: 3D bar plot: communication phases, barriers, and satisfaction.

DISCUSSION

As mentioned in the previous empirical studies communication between patient and nurse, and patient satisfaction are closely linked and therefore message strategies need to be put into focus and systematically improved in healthcare systems. This is corroborated by the observation that although competence is very valued, it is observed that there are opportunities for improvement, particularly in nurse's communication and attitude in patient satisfaction measurements (Li et al., 2023). Effective communication is indeed a complex concept with a primary component of information exchange, but also has a second component of emotional support and a third of shared decision-making, all of which have been shown to be associated with higher satisfaction with communication and better outcomes of symptom management in patients (Effken et al., 2011; Okuda et al., 2021). However, there are several factors that can prevent this critical exchange from being successful such as patient-related factors like high expectations, nurse related factors like heavy workload and environmental factors like low appreciation of the institutions by the nurses (Kordkolaee et al., 2024). The problem is multidimensional and can sometimes lead to a rationing of care in many aspects of nursing care and it has been found to have a negative impact on patient's satisfaction (Papastavrou et al., 2014). In addition, the nurse-patient relationship is closely linked to patient satisfaction, and some of the issues have been identified for outpatient care, wherein patient and nurse communicate in an uncoordinated manner (Qirko et al., 2024). Furthermore, nurse-patient trust can directly impact patients' satisfaction, and emotionally felt and enacted emotions are

of particular importance in nursing, particularly in the ED where patients' and nurses' interactions have limited duration (Xu & Fan, 2023). Besides the interpersonal factors, broader contextual factors such as cultural differences significantly affect the effectiveness of patient-nurse communication, and can create barriers and lower patient satisfaction and adherence to care (Norouzinia et al., 2015; Syarli & Arini, 2025). It is a complex process that considers the patients' need to communicate in various situations (including hospital setting), in order to provide an optimal patient experience and quality of care (QOC), Marca-Francés et al. (2020). To get this optimization, communication gap which is an important factor affecting the quality and quantity of nurse-patient relationship in the case of increased workload comes as a problem as mentioned in “GAPS IN COMMUNICATION SKILLS OF NURSES AFFECTING NURSE-PATIENT RELATIONSHIP AT TERTIARY CARE HOSPITAL” (2021). For this reason, nurses need to be adept in handling patient expectations that are often influenced by their needs and experiences, which can lead to positive interactions between patients and nurses (Shaban et al., 2024). In addition to these challenges in patient disclosure, time pressure, low staffing, and psychosocial discussion are also found to be associated with poor communication quality and patient satisfaction (Chan et al., 2018; Osei et al., 2023). The systemic pressure, including staffing levels, as well as the high demand for emotional labour can lead to feelings of being overwhelmed, which can make it difficult for nurses to provide the patient with emotional support and attention, thereby reducing the satisfaction of the nursing profession and perceived suboptimal care (Goudarzian et al., 2024; Selberg, 2013). This highlights the need for actions that decrease workload, and promote a positive institutional culture, so that optimal communication between nurses and patients can be achieved and consequently, patient satisfaction (Matriano & Realgo, 2025; Petrovic et al., 2025). This holistic strategy to the communication aspect not only raises the bar on patient care, but also contributes to elevating the job satisfaction of nurses and lowering the number of cases of burnout. Communication in healthcare is challenging in high acuity environments such as the ED due to the dynamic and fast-paced nature of the healthcare environment, and requires a specific approach to ensure clarity, understanding and empathy in the patient-nurse relationship (Tuohy & Wallace, 2023). Besides, the capacity of nurses to communicate with patients depends not just on addressing

environmental and systemic issues such as inadequate staff, lack of resources and time, but on the promotion of communication among nurses through ongoing training and the establishment of an environment that facilitates communication with patients (Al-Kalaldeh et al., 2020; Amoah et al., 2019; Kanaan et al., 2025). Furthermore, there are benefits of focussed communication training that have been demonstrated to decrease patient complaints, reduce the risk of adverse events and increase the confidence and satisfaction of clinicians (Pun et al., 2016). This training is especially important as nurses can become emotionally exhausted because they are trying to manage their own emotions while providing empathetic care, and feel like they don't have the right words to say in difficult situations (Banerjee et al., 2015; Mielke et al., 2024).

CONCLUSION

The study has found that nurse–patient communication is not an additional service to be provided by the nursing service, but the fundamental modifiable factor influencing patients' satisfaction and that contributes to more than 50% of the variance in some models of analysis of patients' outcomes. Results indicate that the therapeutic communication (empathic responding, active listening, shared decision making) had the greatest clinical effect during the Working phase and only 2.5 patients (NNT) needed the shared decision making alone to have an effect. Emotional fatigue was identified as one of the most negative factors, and had the strongest relationship with satisfaction, greater than the other factors such as institutional constraints, cultural differences and inadequate nurse training, indicating the importance of the well-being of the nurses and work management for hospital intervention strategies. The results also show that there are threshold effects, which are not linear: after a certain degree of satisfaction, the increase is rather steep; after a certain amount of communication, the mean level of satisfaction was maximum, but the level of satisfaction homogeneity (variability) was minimum, which means it is more equitable. The age differences were identified as: younger patients were more sensitive to the quality of the communication and older patients were more resilient. The structural model which confirms that the empathy-trust link is a mediator between communication and satisfaction provides a theoretical mechanism to explain the link between communication and satisfaction. The results, from a practical point of view, call for the incorporation of the Working phase

techniques into the nursing curriculum, for systematic barrier reduction strategies to address emotional fatigue in the hospital and for quality improvement programs aimed at ensemble machine learning techniques for real-time satisfaction prediction. In conclusion, improving communication between nurses and patients is the most beneficial, cost-effective and patient-centred approach to improving quality of health care in secondary level public hospitals.

REFERENCES

A, A. F. M., Alotaibi, F., Alshammri, D. D., Alshammari, F., Alyahya, H. A. H., Alkhaldaa, A. F. M., Albraih, Z. A. K., Alsuwayyid, S. A., Kathirvelpandian, A., Alsaadi, H. F. S., Alharbi, H. M., Al-Ibraheem, A. A., & Shaiban, B. H. (2024). The Effect of Nurse-Patient Communication on Quality of Care. *Saudi Journal of Medicine and Public Health*, *1*(2), 683–693. https://doi.org/10.64483/20251215

Abraham, S. A., Nsatimba, F., Agyare, D. F., Agyeiwaa, J., Opoku-Danso, R., Ninnoni, J. P., Doe, P. F., Kuffour, B. O., Anumel, B. K., Berchie, G. O., Boso, C. M., Druye, A. A., Okantey, C., Owusu, G., Obeng, P., Amoadu, M., & Commey, I. T. (2024). Barriers and outcomes of therapeutic communication between nurses and patients in Africa: A scoping review. BMC Nursing, 23(1), Article 438. https://doi.org/10.1186/s12912-024-02038-0

Afriyie, D. (2020). Effective communication between nurses and patients: An evolutionary concept analysis. British Journal of Community Nursing, 25(9), 438–445. https://doi.org/10.12968/bjcn.2020.25.9.438

Alhussin, E. M., Mohamed, S., Hassan, A. A., Al-Qudimat, A. R., Doaib, A. M., Al Jonidy, R. M., Al Harbi, L. I., & Alhawsawy, E. D. (2023). Patients' satisfaction with the quality of nursing care: A cross-section study. Research Square. Advance online publication. https://doi.org/10.21203/rs.3.rs-3106384/v1

Al-Khalaldeh, M., Amro, N., Qtait, M., & Alwawi, A. (2020). Barriers to effective nurse-patient communication in the emergency department. Emergency Nurse, 28(3), 29–

35. https://doi.org/10.7748/en.2020.e1969

ALKHAQANI, A. (2025). Effective communication in nursing clinical practice. Asian Journal of Medical Research & Health Sciences, 1(1), 1. https://doi.org/10.5455/ajmrhs.20250502

Alqousi, H. M., Alanezi, A. F., Alyousef, A. A., Alohali, N. I., Alnami, A. M. H., Alonazi, M. F., Khabrani, H. A., Almutairi, F. M., Almotlaq, H. M., Alqahtani, A., Alanzi, A. A., & Alshomrani, S. A. (2024). Bridging empathy and excellence: The impact of nurse–patient communication on quality of care and clinical outcomes. Saudi Journal of Medicine and Public Health, 1(2), 757–767.

Alrimali, A. M., & Alreshidi, N. M. (2023). An assessment of nurse-patient therapeutic communication and patient satisfaction with nursing care in multiple healthcare settings: A study in Saudi Arabia. Journal of Nursing Education and Practice, 14(2), 15. https://doi.org/10.5430/jnep.v14n2p15

Alshalawi, S., Aljedaani, S. M., Fintyanh, D., Salim, S. A., Fairaq, W., & Refaei, S. A. (2025). The effect of nurse-patient communication on patient satisfaction in the emergency department. Journal of Nursing and Midwifery Sciences, 12(1). https://doi.org/10.5812/jnms-158740

Alshammari, M., Duff, J., & Guilhermino, M. (2019). Barriers to nurse–patient communication in Saudi Arabia: An integrative review. BMC Nursing, 18(1), Article 61. https://doi.org/10.1186/s12912-019-0385-4

Alshehri, M. D., Alotaibi, F. S., Jehani, M. F. S. A., Alghamdi, F. A., Alshomrani, M. B. A., Aloufi, M. A., & Aljouid, A. M. (2022). Evaluating the effectiveness of nursing interventions for managing anxiety and depression in hospitalized patients. Journal of Population Therapeutics and Clinical Pharmacology, 29(4). https://doi.org/10.53555/jptcp.v29i04.5815

Amoah, V. M. K., Anokye, R., Boakye, D. S., Acheampong, E., Budu-Ainooson, A., Okyere, E., Kumi-Boateng, G., Yeboah, C., & Afriyie, J. O. (2019). A qualitative assessment of perceived barriers to

effective therapeutic communication among nurses and patients. BMC Nursing, 18(1), Article 4. https://doi.org/10.1186/s12912-019-0328-0

Banerjee, S. C., Manna, R., Coyle, N., Shen, M. J., Pehrson, C., Zaider, T., Hammonds, S., Krueger, C. A., Parker, P. A., & Bylund, C. L. (2015). Oncology nurses' communication challenges with patients and families: A qualitative study. Nurse Education in Practice, 16(1), 193–201. https://doi.org/10.1016/j.nepr.2015.07.007

Barren, J. J., Thakur, P., & Singh, S. (2025). Relational dynamics in health-care: A literature review on the impact of nurse-patient communication on patient satisfaction and health outcomes. International Research Journal of Medicine and Surgery, 2(3), 1–8. https://doi.org/10.47857/irjmeds.2025.v02i03.035

Bhatt, A., & Dayal, A. (2026). Therapeutic communication as a core competency in nursing practice. Journal of Social Science and Humanities, 8(3), 63–66.

Carballedo-Pulido, J., Hurtado-Pardos, B., Roldán-Merino, J., Berenguer, M., Tomás-Jiménez, M., Lamoglia-Puig, M., Fernandez, E., Domínguez-del-Campo, M., Otero-Arús, C., Farrés-Tarafa, M., & Ruiz, S. S. (2025). Psychometric evaluation of the Spanish version of the therapeutic communication scale in nursing students. PLOS ONE, 20(9), e0332615. https://doi.org/10.1371/journal.pone.0332615

Chan, E. A., Wong, F. Y., Cheung, M. Y., & Lam, W. (2018). Patients' perceptions of their experiences with nurse-patient communication in oncology settings: A focused ethnographic study. PLOS ONE, 13(6), e0199183. https://doi.org/10.1371/journal.pone.0199183

Çoşkun, S., & Küçükkelepçe, G. E. (2025). The relationship between nursing care perception and nurses' communication skills: From the perspective of inpatients – A cross-sectional study. Psychology, Health & Medicine, 1–15. Advance online publication. https://doi.org/10.1080/13548506.2025.2531464

Dean, R., Akhtar, P., Channar, H. B., Siyal, R. P., Halepoto, A., & Chandiao, K. (2023). Explore gaps in therapeutic communication and therapeutic nurse-patient relationship at tertiary care hospital. Journal of Health and Rehabilitation Research, 3(2), 1040–1046. https://doi.org/10.61919/jhrr.v3i2.285

Effken, J. A., Carley, K. M., Gephart, S. M., Verran, J. A., Bianchi, D., Reminga, J., & Brewer, B. B. (2011). Using ORA to explore the relationship of nursing unit communication to patient safety and quality outcomes. International Journal of Medical Informatics, 80(7), 507–517. https://doi.org/10.1016/j.ijmedinf.2011.03.015

Gaol, R. L., & Karo, M. B. (2025). The relationship between therapeutic communication and patient satisfaction with nursing care. Interest: Jurnal Ilmu Kesehatan, 14(1). https://doi.org/10.37341/interest.v14i1.703

Giménez-Espert, M. D. C., Maldonado, S. E., Pinazo, D., & Prado-Gascó, V. (2021). Adaptation and validation of the Spanish version of the instrument to evaluate nurses' attitudes toward communication with the patient for nursing students. Frontiers in Psychology, 12, 736809. https://doi.org/10.3389/fpsyg.2021.736809

Goudarzian, A. H., Nasrabadi, A. N., Nia, H. S., Farhadi, B., & Navab, E. (2024). Exploring the concept and management strategies of caring stress among clinical nurses: A scoping review. Frontiers in Psychiatry, 15, 1337938. https://doi.org/10.3389/fpsyt.2024.1337938

Islam, T., & Islam, T. (2024). Role of nurse-patient communication in enhancing patients satisfaction. Asia Pacific Journal of Nursing Research, 5(2), 41–49. https://doi.org/10.70818/apjnr.2024.v05i04.012

Izzah, N., Khasanah, E. A., & Kusuma, N. I. (2025). Effective therapeutic communication by nurses improves inpatient satisfaction on hospital wards. International Journal of Health Science and Technology, 7(2), 127–135. https://doi.org/10.31101/ijhst.v7i2.4295

Kanaan, S., Nour, K., Khreis, B., Qazqi, Q. A., Doudara, B., & Khair, R. (2025). Breaking barriers: Assessing factors affecting nurse-patient communication in healthcare settings: A cross-sectional study. *Ahliya Journal of Allied Medico-Technology Science, 2*(2), 28–33. https://doi.org/10.59994/ajamts.2025.2.28

Khatun, S. (2024). Exploring the impact of nurse-patient communication on mental health outcomes. Journal of Mental Health Nursing, 1(1), 1–3. https://doi.org/10.33545/30810566.2024.v1.i1.a.1

Kondaguli, S. V., Rana, S., & Balagar, N. (2023). Compassionate nursing care: A refined approach to facilitate healing – An expository perspective review. International Journal of Health Sciences and Research, 13(9), 68–78. https://doi.org/10.52403/ijhsr.20230912

Kordkolaee, Z. A., Kaveh, O., Hosseinnataj, A., & Esmaeilli, R. (2024). Barriers to effective communication between nurses and patients from the perspective of emergency nurses at educational-therapeutic: A cross-sectional study. Journal of Nursing and Midwifery Sciences, 11(3). https://doi.org/10.5812/jnms-148574

Kwame, A., & Petrucka, P. (2021). A literature-based study of patient-centered care and communication in nurse-patient interactions: Barriers, facilitators, and the way forward. BMC Nursing, 20(1), Article 158. https://doi.org/10.1186/s12912-021-00684-2

Larasati, N., Pratama, D., & Kusuma, R. (2026). Patient nurse interaction patterns and their influence on quality of care in clinical settings. Qriset Indonesia Journal of Health Science, 1(1), 8–15. https://doi.org/10.63668/qijhs.v1i1.82

Li, L., Xin, C., & Feng, W. (2023). Enhancing patient satisfaction in cross-regional healthcare: A cross-sectional study in the knowledge-based healthcare landscape. Journal of the Knowledge Economy, 15, 14172–14198. https://doi.org/10.1007/s13132-023-01685-z

López, K. D. G., & Chasillacta, F. (2023). Communication in the humanized care provided by the nursing professional. Salud, Ciencia y Tecnología, 3, 505. https://doi.org/10.56294/saludcyt2023505

Marca-Francés, G., Frigola-Reig, J., Menéndez-Signorini, J., Compte-Pujol, M., & Molera, E. M. (2020). Defining patient communication needs during hospitalization to improve patient experience and health literacy. BMC Health Services Research, 20(1), Article 662. https://doi.org/10.1186/s12913-020-4991-3

Matriano, R. M. P., & Realgo, B. (2025). Lost in translation: A meta-synthesis of communication and missed nursing care. Journal of Communication and Management, 4(1), 21–27. https://doi.org/10.58966/jcm2025414

Mau, A., Haryati, T. S., Novieastari, E., & Gayatri, D. (2024). Implementation of a culturally sensitive caring-based nursing service model increasing patient satisfaction in hospitals. Open Access Macedonian Journal of Medical Sciences, 12. https://doi.org/10.3889/oamjms.2024.11909

Mersha, A., Abera, A., Tesfaye, T., Abera, T., Belay, A., Melaku, T., Shiferaw, M., Shibiru, S., Estifanos, W., & Wake, S. K. (2023). Therapeutic communication and its associated factors among nurses working in public hospitals of Gamo zone, southern Ethiopia: Application of Hildegard Peplau's nursing theory of interpersonal relations. BMC Nursing, 22(1), Article 446. https://doi.org/10.1186/s12912-023-01526-z

Mielke, K., Frerichs, W., Cöllen, K., Lindig, A., Härter, M., & Scholl, I. (2024). Perspective on patient-centered communication: A focus group study investigating the experiences and needs of nursing professionals. Research Square. Advance online publication. https://doi.org/10.21203/rs.3.rs-4835486/v1

Munir, A., Charagh, A., Rehman, A., Rafique, M. A., & Riaz, Z. (2026). Impact of nurse–patient communication on patient satisfaction: An empirical study in South Punjab. Journal of Health,

Wellness and Community Research. https://doi.org/10.61919/sp826r88

Newell, S., & Jordan, Z. (2015). The patient experience of patient-centered communication with nurses in the hospital setting: A qualitative systematic review protocol. JBI Database of Systematic Reviews and Implementation Reports, 13(1), 76–87. https://doi.org/10.11124/jbisrir-2015-1072

Norouzinia, R., Aghabarari, M., Shiri, M., Karimi, M., & Samami, E. (2015). Communication barriers perceived by nurses and patients. Global Journal of Health Science, 8(6), 65–74. https://doi.org/10.5539/gjhs.v8n6p65

Nur, K. R. M., Kurniyawan, E. H., Imani, A. B., Qatrunnada, M. B., Efendi, M. A., Afandi, A. T., & Kurniawan, D. E. (2023). Nurse therapeutic communication improves inpatient's satisfaction. International Journal of Midwifery and Health Sciences, 1(3), 245–260. https://doi.org/10.61777/ijmhs.v1i3.56

Nwachukwu, A. H. (2025). Improving patient compliance through therapeutic communication in nursing practice. Journal of Patient Care and Nursing Practice, 2(1), 32–39. https://doi.org/10.33545/30789087.2025.v2.i1.a.10

Okuda, M., Yasuda, A., & Tsumoto, S. (2021). An approach to exploring associations between hospital structural measures and patient satisfaction by distance-based analysis. BMC Health Services Research, 21(1), Article 213. https://doi.org/10.1186/s12913-020-06050-3

Osei, E. A., Oti-Boadi, E., Ani-Amponsah, M., Mawusi, D. G., Awuah, D. B., Menlah, A., & Ofori-Appiah, C. (2023). Barriers to nurses' therapeutic communication practices in a district hospital in Ghana. BMC Nursing, 22(1), Article 8. https://doi.org/10.1186/s12912-023-01191-2

Othman, A. A., Fattah, M. A. E. A. E., & Mahfouz, H. H. E. (2022). Effect of therapeutic communication educational program for nurses on their nursing care quality. Journal of

Nursing Science Benha University, 4(1), 270–287. https://doi.org/10.21608/jnsbu.2023.274780

Papastavrou, E., Andreou, P., Tsangari, H., & Merkouris, A. (2014). Linking patient satisfaction with nursing care: The case of care rationing – A correlational study. BMC Nursing, 13(1), Article 26. https://doi.org/10.1186/1472-6955-13-26

Petrovic, E., Dubois, I., & Müller, L. (2025). Assessing nurse-patient communication barriers in busy general wards: A practical observation research. Journal of Patient Care and Nursing Practice, 2(2), 1–5. https://doi.org/10.33545/30789087.2025.v2.i2.a.12

Pun, J., Chan, E. A., Murray, K. A., Slade, D., & Matthiessen, C. M. I. M. (2016). Complexities of emergency communication: Clinicians' perceptions of communication challenges in a trilingual emergency department. Journal of Clinical Nursing, 26(21-22), 3396–3407. https://doi.org/10.1111/jocn.13699

Qadir, H. R., & Attri, A. (2024). Communication: A vital & therapeutic skill in nursing. International Journal of Science and Research, 13(6), 1326–1329. https://doi.org/10.21275/sr24620150825

Qirko, S., Prifti, V., Kiçaj, E., Çerçizaj, R., & Rogozea, L. (2024). Satisfaction levels of ambulatory patients with the quality of nursing care: Validation and application of the Patient Satisfaction with Nursing Care Quality Questionnaire in Albania. Nursing Reports, 15(1), 4. https://doi.org/10.3390/nursrep15010004

Rahagia, R., & Nurhanifah, D. (2025). The relationship of nurse therapeutic communication to inpatient satisfaction. Jurnal Ilmiah Kesehatan Sandi Husada, 14(1), 27–35. https://doi.org/10.35816/jiskh.v14i1.1244

Rawat, R., Arora, S., Sharma, S. K., & Gupta, R. (2024). Effect of communication training rubric on empathic communication skills of nurses at a tertiary care hospital: A randomized controlled trial. African Journal of Biomedical

Research, 27(3S). https://doi.org/10.53555/ajbr.v27i3s.3350

Santana, N. D. F. D., Mora, J. M., Chong, R. I. V., & Intriago, M. V. Z. (2025). La comunicación enfermero-paciente y su impacto en la calidad del cuidado. RECIMUNDO, 9(1), 824–832. https://doi.org/10.26820/recimundo/9.(1).enero.2025.824-832

Selberg, R. (2013). Nursing in times of neoliberal change: An ethnographic study of nurses' experiences of work intensification. Nordic Journal of Working Life Studies, 3(2), 9. https://doi.org/10.19154/njwls.v3i2.2548

Shaban, M., Mohammed, H. H., Amer, F. G. M., Shaban, M. M., Abdel-Aziz, H. R., & Ibrahim, A. M. (2024). Exploring the nurse-patient relationship in caring for the health priorities of older adults: Qualitative study. BMC Nursing, 23(1), Article 205. https://doi.org/10.1186/s12912-024-02099-1

Simbolon, R. L., Afriani, D., Zega, P. D., Hutabarat, D. S., Manurung, H. R., Manik, E., & Risna, R. (2026). Therapeutic communication phases and patient satisfaction in meeting basic care needs: A cross-sectional study in inpatient care. Jurnal Kesehatan Dan Kedokteran, 5(1), 420–431. https://doi.org/10.56127/jukeke.v5i1.2602

Siokal, B., Amiruddin, R., Abdullah, T., Thamrin, Y., Palutturi, S., Ibrahim, E., Syam, Y., Pamungkas, R. A., Samsualam, S., Mappanganro, A., Wahyuningsih, W., & Mallongi, A. (2023). The influence of effective nurse communication application on patient satisfaction: A literature review. Pharmacognosy Journal, 15(3), 479–483. https://doi.org/10.5530/pj.2023.15.105

Suraya, C., Sansuwito, T. B., Dioso, R. I., & Wisuda, A. C. (2024). Enhancing nurse-patient communication: A comprehensive systematic review of effective strategies. Journal of Nursing Science Research, 1(2), 104–114. https://doi.org/10.33862/jnsr.v1i2.504

Syarli, S., & Arini, L. (2025). Literatur review: Peran budaya dalam mempengaruhi komunikasi pasien

dengan perawat: Tantangan dan peluang. Barongko Jurnal Ilmu Kesehatan, 3(2), 200–207. https://doi.org/10.59585/bajik.v3i2.566

Tuohy, D., & Wallace, E. (2023). Maximising nurse-patient communication in the emergency department. Emergency Nurse, 32(2), 15–18. https://doi.org/10.7748/en.2023.e2179

Vinitha, S. J. (2022). Therapeutic communication in nursing profession. Galore International Journal of Applied Sciences and Humanities, 6(1), 18–21. https://doi.org/10.52403/gijash.20220103

Xu, Y., & Fan, L. (2023). Emotional labor and job satisfaction among nurses: The mediating effect of nurse–patient relationship. Frontiers in Psychology, 14, 1094358. https://doi.org/10.3389/fpsyg.2023.1094358

Yudhianto, K. A., Marni, M., & Amin, N. A. (2025). Psychology-based empathic communication model in nursing: A model to enhance patient trust and satisfaction. Bulletin of Counseling and Psychotherapy, 7(2). https://doi.org/10.51214/002025071390000

Zakzook, F. M. H., Hanafy, E. Y. E., & Zohairy, M. H. S. E. (2025). Assessment of therapeutic communication and patients satisfaction toward nursing care. Egyptian Journal of Health Care, 16(2), 1201–1218. https://doi.org/10.21608/ejhc.2025.441102

Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Majd, H. A., & Nikanfar, A. (2015). Design and implementation content validity study: Development of an instrument for measuring patient-centered communication. Journal of Caring Sciences, 4(2), 165–178. https://doi.org/10.15171/jcs.2015.017