Revista Enfermería Herediana
E-ISSN: 2075-4000
2025, July-December | Volume 18, Issue 2, e7118

ORIGINAL ARTICLE

DOI: https://doi.org/10.20453/renh.v18i2.7118

Empathy, communication skills, and perceived self-efficacy among nursing staff in a hospital in Tamaulipas, Mexico

Paola Victoria López Estrada[1],
Evangelina Guerra Lerma[1],
Delfina Olivares Mar[1],
Iván Daniel Maya Castro[2]

[1] Hospital General ISSSTE in Tampico. Tamaulipas, Mexico.

[2] Universidad Autónoma de Tamaulipas, Faculty of Nursing. Tamaulipas, Mexico.

ABSTRACT

Objective: To analyze empathy, communication skills, and perceived self-efficacy among nursing professionals. **Materials and methods:** A correlational and cross-sectional study was conducted in a second-level General Hospital located in Tampico, Tamaulipas, Mexico. The population consisted of the nursing staff working at the institution, and sampling was non-probabilistic for convenience. Information was obtained from 128 participants. Data collection was carried out online, with informed consent from participants and authorization from the hospital's Ethics and Research Committee. Three instruments were applied: the Basic Empathy Scale (9 items), the Communication Skills Scale (18 items), and the General Self-Efficacy Scale (10 items). Analysis was performed using SPSS version 25, employing descriptive statistics, non-parametric tests (Mann-Whitney, Kruskal-Wallis, Spearman's rho), and multiple linear regression to identify predictors of perceived self-efficacy. **Results:** Instrument analysis revealed a medium level of empathy (M = 30.13; SD = 4.050), good communication skills (M = 91.30; SD = 7.277), and high perceived self-efficacy (M = 35.41; SD = 4.326). Women showed significantly higher empathy scores than men, with no significant differences in the other variables. **Conclusions:** Communication skills were identified as a significant predictor of self-efficacy. The findings highlight the importance of strengthening personal factors and skills that influence nursing practice.

Keywords: nursing; empathy; communication; health.

Received: October 24, 2024
Accepted: November 10, 2025
Online: December 4, 2025

Scientific contribution:

This study shows that communication skills constitute a key factor for the nursing personnel, as they are associated with empathy and significantly predict self-efficacy. The appropriate identification of staff competencies promotes professional development both within and beyond healthcare settings, thus enhancing the quality of care.

INTRODUCTION

The nursing personnel constitute a key element for the efficient functioning of healthcare services, playing a leading role across all stages of the development of medicine (1). Currently, the professional profile required of nurses is linked to technological and industrial advances, which demand compliance with academic standards and national certifications that validate both theoretical knowledge and practical experience in their professional practice (2, 3).

However, professional training should not be limited to technical and academic preparation alone. The quality of healthcare also requires the strengthening of interpersonal skills, which are essential for effective and humane interaction with patients (4). These skills should be fostered from the early stages of university education, as they help face clinical challenges with resilience, commitment, and ethical awareness (5). Among these, empathy and communication skills stand out as essential elements in professional practice (6, 7).

Empathy is a social-emotional skill that can be developed and refined in various contexts. In the field of nursing, it is characterized by the professional's ability to understand patients' feelings, emotions, and experiences (8). Previous evidence indicates that higher levels of empathy among the healthcare personnel are associated with a lower incidence of burnout syndrome, as well as a reduction in the impact of academic workload and occupational fatigue (9). This construct is a trait that must be nurtured and regulated, as it may be influenced by several factors, including age, work experience, sex, and educational level (10, 11).

Although empathy is essential for nursing practice, it requires an effective channel to be perceived and understood by patients: communication. Communication skills allow the nursing personnel to convey their perceptions and emotions clearly, promptly, and respectfully, and strengthen the therapeutic relationship. These skills encompass a set of verbal, nonverbal, and paraverbal competencies that ensure the transmitted message is received and understood as intended (12). Their effectiveness depends on factors that may facilitate or hinder the accurate transmission and reception of information, such as workload, available time, and the emotional state of both parties. Excessive task demands may limit the quality of dialogue and individualized attention. In the same way, the emotional state of both the healthcare professional and the patient may affect active listening capacity and empathic response, thereby influencing openness and trust during the interaction (13). Therefore, establishing a strong therapeutic relationship based on trust and mutual understanding is essential to achieving positive healthcare outcomes (14).

The skills mentioned are crucial for strengthening the quality of care, as well as the level of perceived self-efficacy (15), which in turn motivates personnel to improve their communication skills (16). Self-efficacy thus represents a fundamental construct for understanding how nursing professionals confront and resolve the challenges inherent to their work. Assessing this attribute makes it possible to identify the level of confidence nurses have in performing their responsibilities effectively, which directly influences their performance, decision-making, and ability to handle stressful and uncertain situations (17).

Based on this background, the primary objective of this study was to analyze the relationship between levels of empathy, communication skills, and perceived self-efficacy among nursing professionals in a general hospital in Tamaulipas.

MATERIALS AND METHODS

A descriptive, correlational, cross-sectional study was conducted in a second-level general hospital in Tampico (Tamaulipas, Mexico). The study population consisted of 390 nursing professionals assigned to different shifts and services at the time the survey was conducted. Using the formula for calculating finite samples (with a margin of error of 7%), a sample of 128 participants was estimated, selected through non-probability convenience sampling.

Inclusion criteria included nurses with permanent contracts and active interns; exclusion criteria included personnel in training, those on leave, or individuals unwilling to participate; elimination criteria consisted of incomplete surveys or employment interruptions exceeding one year.

Three instruments were administered, each with adequate internal consistency according to Cronbach's alpha: the Basic Empathy Scale (9 items, 5-point Likert scale; $\alpha = 0.712$) (18), the Communication Skills Scale (18 items, 6-point Likert scale, four dimensions; $\alpha = 0.760$) (19), and the General Self-Efficacy Scale (10 items, 4-point Likert scale; $\alpha = 0.877$) (20).

For data analysis, variable normality was assessed using the Kolmogorov–Smirnov test, which determined the use of nonparametric tests: the Mann–Whitney U test for comparisons between two groups (sex) and the Kruskal–Wallis H test for comparisons among more than two groups (educational level and personnel type). To examine the relationship between non-normally distributed continuous variables, Spearman's correlation (Spearman's rho) was used. Finally, multiple linear regression analysis was performed to identify variables acting as predictors of perceived self-efficacy.

Data collection was conducted online (Google Forms) after participants provided informed consent. Data were analyzed using SPSS v. 25. This research study was approved by the Research and Ethics Committee of the Hospital General ISSSTE on August 11, 2025.

RESULTS

Data were collected from 128 nursing professionals, of whom 106 (82.8%) were women, and 22 (17.2%) were men. The median age was 35 (min = 18; max. = 64). Regarding employment status, 21 interns (16.4%), 58 nurses with permanent contracts (45.3%), and 49 temporary nurses (38.3%) were identified. The predominant educational level was "specialist nurse" (36.7%), followed by "Bachelor of Science in Nursing" (28.9%).

Concerning the length of professional experience, 25.8% of participants were interns or personnel without prior experience. A total of 45.3% reported having between 1 and 5 years of work experience; 7.8% between 6 and 10 years; another 7.8% between 10 and 20 years; and 13.3% more than 20 years. The instrument was applied to the staff from all departments and shifts at the hospital.

Each instrument was analyzed separately to describe the level of each variable. The results of frequencies and percentages are presented in Table 1.

Table 1. Levels of empathy, communication skills, and perceived self-efficacy among participants.

Variable	Low		Mean		High	
	n	%	n	%	n	%
Empathy	1	0.8	61	47.7	66	51.6
Self-efficacy	0	0.0	3	2.3	125	97.7
	Poor		**Median**		**Good**	
Communication skills	0	0.0	3	2.3	125	97.7

Participants reported a medium level of empathy, with a mean score of 30.13 points (SD = 4.050; min = 13; max = 36), indicating substantial variability in responses and the presence of some participants with low scores. Similarly, communication skills were rated as good, with a mean score of 91.30 points (SD = 7.277; min = 64; max = 107), with no nursing personnel reporting poor communication skills. Finally, the surveyed staff showed high perceived self-efficacy, with a mean score of 35.41 (SD = 4.326; min = 20; max = 40). This result reflects a significant individual strength, as self-efficacy constitutes a key internal skill related to professional confidence (Table 2).

Table 2. Descriptive measures of variable outcomes.

Variable	Mín.	Máx.	Mean	Standard deviation
Empathy	13	36	30.13	4.050
Communication skills	64	107	91.30	7.277
Self-efficacy	20	40	35.41	4.326

Empathy, communication skills, and perceived self-efficacy scores were compared according to sex using the Mann–Whitney U test. A statistically significant difference was found in the empathy scale, with women obtaining higher scores than men. The other instruments did not show any significant differences.

Regarding the variables educational level, length of professional experience, and personnel type, the Kruskal–Wallis H test was applied, with no significant differences identified in responses to the instruments. This suggests that these variables do not influence empathy, communication skills, or self-efficacy. No differences were observed across hospital departments either.

Subsequently, a Spearman correlation analysis was conducted between empathy, communication skills, and perceived self-efficacy. The results suggest that, although the relationships were weak, communication was associated with both empathy and staff self-efficacy (Table 3).

Table 3. Spearman's correlation between empathy, communication skills, and perceived self-efficacy.

	Empathy	Communication skills	Perceived self-efficacy
Empathy	1.000	$r_s = 0.295$; $p = 0.001$*	$r_s = 0.040$; $p = 0.653$
Communication skills	$r_s = 0.295$; $p = 0.001$*	1.000	$r_s = 0.310$; $p < 0.001$*
Perceived self-efficacy	$r_s = 0.040$; $p = 0.653$	$r = 0.310$, $p < 0.001$*	1.000

r_s = Spearman correlation coefficient; p = bilateral significance. Asterisks (*) indicate significant relationships between variables.

Finally, a multiple linear regression analysis was performed to identify factors predicting perceived self-efficacy. Only communication skills were found to behave as a significant predictor of self-efficacy ($p = 0.003$) (Table 4).

Tabla 4. Regresión lineal para predecir la autoeficacia percibida.

	t	Sig.
Empathy	-0.174	0.862
Communication skills	3,075	0.003
Length of professional experience	-0.371	0.711
Educational level	-0.641	0.522

DISCUSSION

Some studies have measured empathy across different health professions, such as the study by Rozengway et al. (21), who conducted a comparative analysis among medicine, nursing, and dentistry. That study did not find significant differences among the professions; however, it reported that men obtained the highest scores. This contrasts with our research, where women achieved higher scores when assessing empathy levels. Nevertheless, no other variables showed an influence, suggesting the existence of additional intrinsic factors that may exert an effect.

In Buenos Aires, a study on perceived self-efficacy in humanized care showed that empathy and communication skills influence the ability of the nursing staff and students to provide high-quality care (22). The results of this study partially align. Communication skills were identified as a significant predictor of self-efficacy, whereas empathy did not show a direct predictive effect. This suggests that, although it remains an important component of humanized care, communicative competence may be more determinant in perceived self-efficacy, as it facilitates effective patient interaction and confidence in one's own ability.

Our results are consistent with those reported by Güneşer and Kirimlioğlu (23) in Turkey, who reported a positive correlation between communication skills and attitudes toward teamwork ($r = 0.467$; $p < 0.001$). In this study, communication skills were likewise identified as a significant predictor of self-efficacy. These results reinforce the notion that communication constitutes a key element in strengthening professional competencies and perceived efficacy in nursing. They also highlight the need to implement educational strategies aimed at enhancing performance and quality of care, as well as fostering a more positive work environment.

A study conducted in Lima on communication skills and empathy among emergency nurses highlighted the relevance of these competencies in high clinical demand settings. The results show a complementary relationship: Although empathy was not a significant predictor of self-efficacy, communication skills showed a positive and statistically significant effect (24). This suggests that communication represents a central factor in perceived professional efficacy, while empathy may exert an indirect influence or one mediated by other variables, including communication.

One limitation identified was the difficulty of internet access among staff, since the surveys were conducted online. This situation resulted in some participants not responding immediately.

CONCLUSIONS

The nursing personnel included in this study showed a moderate level of empathy, strong communication skills, and high perceived self-efficacy. Overall, these results provide relevant evidence regarding the psychosocial factors that influence staff perceptions of self-efficacy.

The identification of communication skills as a significant predictor underscores the need to strengthen professional communication training as a strategy to enhance confidence, empathy, and quality of care. This finding contributes to the body of knowledge on contemporary nursing practice in Latin America and provides an empirical foundation for future educational and research interventions.

Finally, based on the results, the implementation of training programs focused on the development of interpersonal competencies or soft skills among the nursing personnel is recommended, reinforcing existing abilities and promoting open expression.

Conflict of interest:
The authors declare no conflict of interest.

Funding:
Self-funded.

Ethics approval:
This study was approved by the Research and Ethics Committee of the Hospital General ISSSTE on August 11, 2025, in Tampico, Tamaulipas, Mexico.

Authorship contribution:
PVLE: conceptualization, formal analysis, research, methodology, validation, visualization, writing of the original draft, writing - review & editing.
EGL: data curation, research, validation, writing of the original draft.
DOM: data curation, research, data collection.
IDMC: data analysis, research, validation.

Corresponding author:
Iván Daniel Maya Castro
✉ ivan.maya@uat.edu.mx

REFERENCES

1. Casanova MC, González W, Machado F, Casanova D, González M. Hans Hugo Bruno Selye y el estrés, hito en la historia de la medicina moderna. Gac Méd Espirit [Internet]. 2023; 25(2) Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1608-89212023000200009
2. Figueroa C, Aranda P. Experiencias del personal de enfermería ante la muerte perinatal. Rev Cubana Enfermer [Internet]. 2022; 38(1): e4064. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03192022000100016
3. Consejo Mexicano de Certificación de Enfermería (MX). [Certificación en Enfermería] [Internet]. COMCE A.C.; [n. d.]. Available from: https://www.comceac.com/blank-2
4. Quiñones EI, Bañuelos Y, Bañuelos P, Castillo LC, Álvarez A. Estrategias pedagógicas para el desarrollo de competencias de cuidado en estudiantes de enfermería: una revisión sistemática. Cienc Lat [Internet]. 2025; 9(1): 8247-8268. Available from: https://doi.org/10.37811/cl_rcm.v9i1.16472
5. Asencios IS, Rivas LH. Estrategias de aprendizaje y logro de competencias genéricas en estudiantes de enfermería. Rev Cubana Enfermer [Internet]. 2022; 38(4): e5390. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03192022000400007
6. Macías L, Rojas J, Baeza M, Arévalo C. Simulación interprofesional en estudiantes de enfermería y medicina, experiencias de sus protagonistas. Rev Cubana Enfermer [Internet]. 2023; 39: e5757. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-03192023000100048
7. Rodríguez RM, Arevalo RA. Calidad de atención de enfermería y satisfacción del paciente en el servicio de emergencia de un hospital nacional de Lima-Perú. Cienc Lat [Internet]. 2023; 7(1): 5045-5059. Available from: https://doi.org/10.37811/cl_rcm.v7i1.4815

8. Matta-Solis DK. Empatía en internos de un programa de enfermería en Lima, 2022. Cuid Salud Públ [Internet]. 2022; 2(2): 36-42. Available from: https://doi.org/10.53684/csp.v2i2.53
9. Santander-Díaz K, Castro-Pastén P, Calzadilla-Núñez A, Aguilera-Olivares F, Díaz-Narváez V. Empatía y declinación empática por curso y sexo en estudiantes de enfermería. Rev Cubana Med Gen Integr [Internet]. 2021; 37(2): e1115. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21252021000200015&lng=es&nrm=iso&tlng=es
10. Roldán MT, Sánchez JF, Moore JR, Navarro C, Álvarez C, Buendía D. Efectividad de una intervención breve en la resiliencia, atención plena y empatía de profesionales de enfermería. Enferm Glob [Internet]. 2023; 22(3): 133-142. Available from: https://doi.org/10.6018/eglobal.545071
11. Caycho MY. Nivel de empatía en enfermeros del servicio de gineco obstetricia de un Hospital nacional del Callao, 2023 [specialist thesis on the Internet]. Lima: Universidad Peruana Unión; 2024. Available from: https://hdl.handle.net/20.500.12840/8117
12. Trillo V, Bueno LF, Garibay G, Olivas IG, Vargas L. Nivel de conocimiento y habilidades comunicativas del personal de enfermería en la atención de pacientes con discapacidad auditiva. Rev Electrón Portales Médicos [Internet]. 2023; 18(19): 1000. Available from: https://www.revista-portalesmedicos.com/revista-medica/nivel-de-conocimiento-y-habilidades-comunicativas-del-personal-de-enfermeria-en-la-atencion-de-pacientes-con-discapacidad-auditiva/
13. Gonzales JC, Núñez MB, Pinedo RI, Meneses-La-Riva ME. Conocimientos sobre la administración de tratamientos oncológicos y habilidades comunicativas en el personal de enfermería. Vive [Internet]. 2025; 8(23): 806-817. Available from: https://doi.org/10.33996/revistavive.v8i23.413
14. De Tomas Santos VF, Corrales LV. Transcendencia de la empatía y habilidades comunicativas en el cuidado humanizado del Profesional de Enfermería [Master's thesis on the Internet]. Lima: Universidad Peruana Unión; 2025. Available from: https://hdl.handle.net/20.500.12840/8461
15. Mansilla M, Canova C. Autoeficacia para brindar cuidados humanizados por parte del personal de enfermería. Gac Méd Bol [Internet]. 2024; 47(1): 20-26. Available from: https://doi.org/10.47993/gmb.v47i1.763
16. Estrada EG, Farfán M, Lavilla WG, Paricahua JN, Quispe J. Burnout académico y autoeficacia en estudiantes de Enfermería en el contexto de la pospandemia. Rev Cuba Enferm [Internet]. 2023; 39: e5831. Available from: https://revenfermeria.sld.cu/index.php/enf/article/view/5831/0
17. Delgado C. Estrategia de afrontamiento frente al estrés relacionado con la percepción de la autoeficacia del cuidado del personal enfermero emergencista, en el contexto de la pandemia por Covid-19. Hospital Goyeneche. Arequipa, 2021 [specialist thesis on the Internet]. Arequipa: Universidad Católica de Santa María; 2021. Available from: https://repositorio.ucsm.edu.pe/handle/20.500.12920/11254
18. Hess C, Mesurado B. Adaptación y validación de la Escala Disposicional de Empatía Positiva a población adolescente argentina. Acta Colomb Psicol [Internet]. 2023; 26(1): 27-44. Available from: https://doi.org/10.14718/acp.2023.26.1.3
19. Leal-Costa C, Tirado S, Ramos-Morcillo AJ, Díaz JL, Ruzafa-Martínez M, Van-der Hofstadt CJ. Validación de la Escala sobre Habilidades de Comunicación en profesionales de Enfermería. An Sist Sanit Navar [Internet]. 2019; 42(3): 291-301. Available from: https://doi.org/10.23938/ASSN.0745
20. Sanjuán P, Pérez AM, Bermúdez J. Escala de autoeficacia general: datos psicométricos de la adaptación para población española. Psicothema [Internet]. 2000; 12(supl.2): 509-513. Available from: https://www.psicothema.com/pdf/615.pdf
21. Rozengway H, García AM, Vallecillo LI. Niveles de empatía según la escala de Jefferson en estudiantes de Medicina, Enfermería y Odontología de Honduras. Rev Cient Cienc Méd [Internet]. 2016; 19(2): 14-19. Disponible de: http://www.scielo.org.bo/scielo.php?script=sci_arttext&pid=S1817-74332016000200003
22. Canova-Barrios CJ, Figueira-Teuly J, Ayllon J, Miranda ML, Barraud MI. Percepción de autoeficacia para brindar cuidados humanizados por parte de estudiantes y personal de enfermería de Buenos Aires, Argentina. Rev Chil Enferm [Internet]. 2023; 5(1): 10-22. Available from: https://doi.org/10.5354/2452-5839.2023.69713
23. Güneşer R, Kirimlioğlu N. The relationship between communication skills of nursing students and their attitudes towards teamwork: a case from Turkey. Acta Bioethica [Internet]. 2025; 31(1): 65-78. Available from: https://actabioethica.uchile.cl/index.php/AB/article/view/78371
24. Cabanillas MT, Meneses ME. Habilidades en comunicación y empatía en enfermeras que laboran en el servicio de emergencia en un establecimiento de salud nacional de Lima, 2025 [specialist thesis on the Internet]. Lima: Universidad Peruana Unión; 2025. Available from: https://hdl.handle.net/20.500.12840/8824