Lentera Perawat
Volume 7 Number 1 : January-March 2026

OPEN ACCESS

Original Article

Communication competence of undergraduate healthcare students in Thailand: A cross-sectional study

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Keyword:
Communication;
Competence;
Education;
Healthcare Students;

DOI:
https://doi.org/10.52235/lp.v7i1.595

Article Info:
Received : August 26, 2025
Revised : October 30, 2025
Accepted : November 18, 2025

Lentera Perawat
e-ISSN : 2830-1846
p-ISSN : 2722-2837

Abstract

Background: Effective communication is a cornerstone of patient-centered healthcare, directly influencing treatment adherence, patient satisfaction, and safety outcomes. In Thailand, where cultural diversity and family involvement play vital roles in healthcare, inadequate communication remains a persistent challenge affecting patient well-being. Strengthening communication competence among undergraduate healthcare students is crucial for preparing future professionals to deliver safe, empathetic, and culturally sensitive care.

Objective: This study aimed to assess the communication competence of undergraduate healthcare students in Thailand and to examine whether demographic factors influence these skills.

Methods: A cross-sectional quantitative design was employed. Data were collected from 212 undergraduate healthcare students enrolled in medicine, nursing, pharmacy, dentistry, and allied health programs at three major public universities in Thailand. The validated Self-Efficacy 12 (SE-12) questionnaire was used to measure students' self-perceived communication competence. Data were analyzed using descriptive statistics and chi-square tests to identify associations between communication competence and demographic characteristics.

Results: Among respondents, 55.2% demonstrated good communication competence, while 44.8% exhibited poor competence. No statistically significant associations were found between communication competence and gender, age, year of study, or faculty affiliation ($p > 0.05$). These findings suggest that sociodemographic characteristics do not significantly influence communication abilities among healthcare students.

Conclusion: Nearly half of Thailand's undergraduate healthcare students demonstrated limited communication competence, highlighting a critical need for targeted educational interventions. Integrating structured, experiential, and culturally grounded communication training into healthcare curricula is essential to enhance competence, improve patient safety, and promote high-quality, patient-centered care.

Background

Approximately 40% of patients in primary and ambulatory healthcare settings may experience preventable harm, with ineffective communication consistently identified as a key contributing factor (Howick et al., 2024). The World Health Organization emphasizes the importance of effective communication in promoting health awareness and maintaining trust between patients and providers, especially during crises such as the COVID-19 pandemic, when communication breakdowns severely strained healthcare–patient relationships (Vaz et al., 2023). In Thailand, a country with diverse cultural and linguistic backgrounds, the need for clear and accurate communication is even more critical for ensuring patient safety. Communication plays a pivotal role in delivering essential health information such as disease prognosis, dietary guidance, and medication instructions, which are directly linked to practices in medication verification, fall prevention, and infection control (Ratna, 2019; Kim, Cho, & Park, 2022). Healthcare providers in Thailand must therefore continually strengthen their communication skills to minimize adverse events and foster patient-centered care (Tiwary et al., 2019).

Developing effective communication competencies during undergraduate training is particularly important in Thailand's healthcare education system. Equipping healthcare students with these competencies prepares them to enhance health literacy, build patient trust, and encourage positive health behaviors in diverse communities (Antón-Solanas et al., 2021; Fisher & Kiernan, 2019; Soares et al., 2022). Moreover, early exposure to patient safety practices, including raising concerns about communication errors, instills a strong sense of responsibility in students, ensuring they are better prepared to safeguard patient

well-being in their professional roles (Fisher & Kiernan, 2019).

Poor communication among healthcare providers can have profound consequences for patients. In Thailand's healthcare context—characterized by rapid expansion of universal healthcare coverage and increased demand for services—delays in treatment, misinterpretation of care plans, and diminished patient satisfaction remain challenges when communication is inadequate (Kwama & Petrucka, 2021). Issues such as lack of active listening, insufficient empathy, and limited cultural sensitivity hinder the establishment of trust and therapeutic relationships. These shortcomings may worsen health outcomes due to patients' non-adherence to treatment regimens. Addressing these gaps requires targeted training that focuses on empathy, cultural competence, and active listening to strengthen a patient-centered healthcare environment that prioritizes both physical and emotional well-being (Kwama & Petrucka, 2021; Ratna, 2019).

Evidence demonstrates that effective communication fosters patient understanding, promotes informed decision-making, and strengthens trust between patients and providers. For example, nearly 83% of studies highlight that involving family members in discussions improves end-of-life care decisions (Anderson et al., 2019). Similarly, establishing rapport enhances adherence to treatment plans and improves patient satisfaction with healthcare services (Jin et al., 2022). In Thailand, where family involvement in health-related decision-making is culturally significant, communication competence becomes a critical skill for healthcare professionals. Strong communication skills also facilitate interdisciplinary collaboration, reduce workplace conflicts, and promote a culture of safety (Mahvar et al., 2020; Aldawood et al., 2020; Paddley et al., 2022).

Against this background, the present study was conducted to assess the communication competence of undergraduate healthcare students in Thailand. It addresses the persistent issue of inadequate communication in healthcare training and its adverse effects on patient well-being. By identifying the prevalence of effective and ineffective communication and exploring potential root causes, this study aims to inform educational interventions for healthcare institutions in Thailand. The findings are expected to provide practical recommendations for educators, administrators, and practitioners to enhance curricula, promote patient-centered care, and ultimately improve patient outcomes (Bhati, Deogade, & Kanyal, 2023). The specific purpose of this study is to evaluate the communication competence of undergraduate healthcare students in Thailand and to examine whether demographic factors influence these skills.

Methods

Study Design

This study adopted a cross-sectional quantitative design to evaluate the communication competence of undergraduate healthcare students in Thailand. The design was appropriate for determining the prevalence of effective and ineffective communication practices and examining potential associations between communication competence and demographic characteristics. The study adhered to the STROBE guidelines to ensure transparency, methodological rigor, and reproducibility. Data collection was carried out over a two-month period, from March to April 2024, across selected universities in Thailand that offer healthcare programs in medicine, nursing, pharmacy, dentistry, and allied health sciences.

The study's conceptual framework was based on the assumption that communication competence among healthcare students is influenced by individual and educational factors, such as academic discipline, year of study, and prior clinical exposure. This framework guided variable selection, sampling strategy, and data interpretation.

Sampling and Setting

The study population consisted of undergraduate students enrolled in healthcare faculties at three major public universities in Thailand. These institutions were selected to represent different geographical and cultural contexts of healthcare education in Thailand. Participants were recruited through random sampling to ensure diversity across faculties

and academic levels. The required sample size was calculated using the Raosoft sample size calculator with a 5% margin of error, a 95% confidence interval, and the total population of approximately 3,500 healthcare students across the three universities. The minimum sample size was estimated at 346, which was increased by 10% to account for potential non-response, resulting in a final target of 380 participants.

Instruments

Data were collected using a structured, self-administered online questionnaire divided into two sections. The first section collected demographic information, including gender, age, academic program, year of study, and prior clinical exposure. The second section measured communication competence using the validated Self-Efficacy 12 (SE-12) questionnaire developed by Axboe et al. (2016). This instrument consists of 12 items assessing self-perceived confidence in performing key communication tasks such as active listening, empathy, delivering difficult messages, and interacting effectively with patients and colleagues.

Each item was rated on a five-point Likert scale ranging from 1 = very uncertain to 5 = very certain, with higher mean scores indicating greater perceived communication competence. The SE-12 instrument has demonstrated excellent reliability, with a Cronbach's alpha of 0.95 in prior studies. For this research, the questionnaire was translated into Thai through a forward–backward translation process by bilingual experts to ensure semantic and conceptual equivalence. A pilot test was conducted with 30 healthcare students to evaluate clarity, language suitability, and internal consistency. The Thai version of the instrument achieved a Cronbach's alpha of 0.93, confirming high reliability for use in this context.

Data Collection

Data collection was carried out over a period of two months, from March to April 2024, using secure online survey platforms integrated into each university's digital learning environment. Participants received an invitation via official university email and student portals containing detailed study information, consent forms, and a link to the online questionnaire. This electronic method facilitated broad accessibility across different regions of Thailand while minimizing logistical barriers and maintaining confidentiality.

Participation was entirely voluntary, and no personal identifiers such as student names or IDs were collected. Respondents could complete the questionnaire anonymously at their convenience, which helped reduce social desirability bias. The estimated completion time was 10–15 minutes. To maximize response rates, three reminder emails were distributed at one-week intervals. The online system was configured to restrict multiple submissions from the same participant to prevent duplication. Upon completion, responses were automatically coded and stored in a password-protected database, accessible only to the research team.

Data Analysis

Data analysis was conducted using IBM SPSS Statistics version 27.0. Descriptive statistics such as frequencies, percentages, means, and standard deviations summarized demographic characteristics and communication competence levels. Fisher's exact test and chi-square test were used to examine associations between communication competence and demographic variables (age, gender, year of study, and faculty affiliation). A significance level of $p < 0.05$ was considered statistically significant. Results were presented in both tabular and narrative form to facilitate interpretation and application to healthcare education in Thailand.

Ethical Consideration

Ethical approval was obtained from the Research Ethics Committees of all participating universities before the commencement of the study. All procedures adhered to the ethical standards of the Declaration of Helsinki and institutional research guidelines for studies involving human participants. Participants were provided with both electronic and written information outlining the study's objectives,

potential risks, and benefits, and were informed that participation was voluntary.

Electronic informed consent was obtained before respondents could access the survey. Confidentiality was maintained through the use of anonymized codes, and no identifying information was collected. Data were stored securely on encrypted, password-protected servers accessible only to the principal investigator and authorized research personnel. Participants were informed of their right to withdraw from the study at any time without penalty or effect on their academic status. In compliance with data protection policies, all research data will be retained securely for five years and permanently deleted thereafter.

Results

A total of 212 undergraduate healthcare students from three major universities in Thailand participated in this study, representing medicine, nursing, pharmacy, dentistry, and allied health sciences programs. Although the target sample size was 380, the final response rate was 55.8%, which is consistent with online survey participation rates in similar educational research, (See Table 1).

Table 1. Demographic Characteristics of Undergraduate Healthcare Students in Thailand (N = 212)

Variable	Frequency (n)	Percentage (%)
Gender		
Male	82	38.7
Female	130	61.3
Age		
≤ 20	64	30.2
21–23	98	46.2
≥ 24	50	23.6
Year of study		
Year 1–2	84	39.6
Year 3–4	128	60.4
Faculty		
Medicine	52	24.5
Nursing	66	31.1
Pharmacy	40	18.9
Dentistry	28	13.2
Allied Health Sciences	26	12.3
Communication Competence		
Good	117	55.2
Poor	95	44.8

Among respondents, 117 students (55.2%) demonstrated good communication competence, while 95 students (44.8%) exhibited poor communication competence based on SE-12 scores. This distribution indicates that nearly half of the healthcare students surveyed lacked optimal communication skills, underscoring the need for targeted interventions in the curriculum to strengthen competencies.

Statistical analysis using Fisher's exact test and chi-square test revealed no significant associations between communication competence and demographic characteristics, including gender ($p = 0.62$), age group ($p = 0.71$), year of study ($p = 0.58$), and faculty affiliation ($p = 0.66$). These results suggest that sociodemographic factors did not influence students' communication abilities (See Table 2).

Discussion

The present study evaluated the communication competence of undergraduate healthcare students in Thailand and revealed that just over half of the respondents demonstrated good communication skills, while nearly half reported poor competence. This finding is consistent with prior international studies that highlight persistent challenges in equipping healthcare students with effective communication skills (White et al., 2023; Ratna, 2019). The results underscore the critical need

for integrating structured and experiential communication training into healthcare curricula in Thailand to ensure that future healthcare professionals are adequately prepared for patient-centered care.

Table 2. Association between Demographic Variables and Communication Competence

Variable	Communication Competence (%)		pvalue
	Good	Poor	
Gender			
Male	57.3	42.7	0.62
Female	54.0	46.0	
Age			
≤ 20	53.1	46.9	0.71
21–23	55.1	44.9	
≥ 24	58.0	42.0	
Year of study			
Year 1–2	52.4	47.6	0.58
Year 3–4	57.0	43.0	
Faculty			
Medicine	57.7	42.3	0.66
Nursing	59.1	40.9	
Pharmacy	52.5	47.5	
Dentistry	53.6	46.4	
Allied Health Sciences	50.0	50.0	

The study findings reaffirm the central role of communication in achieving positive patient outcomes, fostering therapeutic relationships, and ensuring safety in healthcare delivery. Poor communication has been associated with treatment delays, misunderstanding of care plans, and diminished patient satisfaction (Kwama & Petrucka, 2021; Tiwary et al., 2019). In the Thai context, these risks may be magnified due to the cultural diversity of patients and the significant role of families in health decision-making. Evidence shows that communication with relatives improves end-of-life decision-making in 83% of cases (Anderson et al., 2019), which is particularly relevant in Thailand where family involvement is deeply rooted in healthcare practice.

Similar to previous findings in Malaysia and other countries, the present study did not identify significant associations between communication competence and demographic factors such as gender, age, year of study, or faculty affiliation. These results suggest that sociodemographic variables may not be strong determinants of communication skills. Instead, factors such as teaching methods, quality of clinical exposure, and students' personal engagement appear to play more influential roles (Li et al., 2019; Buckley & Lee, 2021). This aligns with the observation that students in later years of study and those with more clinical exposure tended to report higher communication scores, even though these differences were not statistically significant.The findings highlight the need for Thai universities to implement comprehensive communication training that goes beyond traditional didactic lectures. Evidence-based strategies such as simulation, role-play, and feedback-driven exercises can enhance students' interpersonal and clinical communication skills (Sheehan et al., 2021). Moreover, embedding cultural competence training is crucial in Thailand's multicultural healthcare environment, where effective communication must account for diverse patient values, beliefs, and language preferences (Antón-Solanas et al., 2021; Soares et al., 2022). Strengthening communication curricula can also foster a safety culture, reduce workplace conflicts, and promote collaboration across interdisciplinary teams (Mahvar et al., 2020; Aldawood et al., 2020).

Future research in Thailand should adopt longitudinal and intervention-based designs to track the development of communication competence over time and to evaluate the

effectiveness of specific pedagogical interventions. Multi-institutional studies involving both public and private universities could provide a broader perspective on the communication training landscape. Additionally, incorporating objective performance-based assessments—such as observed structured clinical examinations (OSCEs)—would complement self-reported data and reduce response biases.

Conclusion and Recommendation

This study assessed the communication competence of undergraduate healthcare students in Thailand and found that just over half of the participants demonstrated good communication skills, while nearly half exhibited poor competence. No significant associations were observed between communication skills and demographic factors such as gender, age, year of study, or faculty affiliation. These findings suggest that communication competence is shaped less by sociodemographic characteristics and more by educational strategies, experiential learning, and clinical exposure.

Based on the study findings, it is recommended that undergraduate healthcare curricula in Thailand integrate structured and experiential communication training to strengthen students' competence. Simulation-based learning, role-play, and OSCEs should be incorporated as effective strategies to build interpersonal and clinical communication skills. In addition, expanding opportunities for clinical placements and interprofessional practice is essential to provide students with real-world exposure, while reflection and mentorship programs can help develop communication self-efficacy.

Acknowledgment
The author would like to express deepest gratitude to all respondents who willingly took the time to participate in this research.

Funding Source
None

Declaration of conflict of interest
The authors declare no competing interests.

Declaration on the Use of AI
No AI tools were used in the preparation of this manuscript.

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