



## The study of hard and soft skills used by nursing students during their clinical practice in public hospitals

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### Abstract

The study investigated the use of hard and soft skills by nursing students during their clinical practice in public hospitals. A phenomenological qualitative study was employed to understand the experiences of 10 third-year nursing students as they applied hard and soft skills in real-world healthcare settings. Semi-structured interviews were used to collect the data. The findings revealed that ten nursing students employed both hard and soft skills. They utilized hard skills, both academic knowledge and information technology, to perform and support their clinical tasks and practices. Soft skills, including communication, teamwork, adaptability, empathy, responsibility, respect for others, work ethics, critical thinking, and problem-solving, were utilized to navigate the complexities of patient care and professional interactions. The study also found that, although critical thinking was one of the soft skills, when nursing students applied it in the healthcare setting, they used it alongside hard skills. The results suggested that the use of hard and soft skills was crucial for nursing students to adapt and excel across various clinical environments. Additionally, the findings highlighted that students often relied on technology, peer support, and self-directed learning to enhance their competence, while some struggled with communication in hierarchical settings due to a seniority culture.

**Keywords:** Hard skills, Soft skills, Nursing students, Clinical practice

### Introduction

A nursing career requires hard and soft skills, including specialized domain knowledge, as well as skills and attitudes or behaviors acquired through academic education and clinical practice experience (Hariti et al., 2020; Somsap & Varee, 2023; Widjadja & Saragih, 2018). These elements are used in service, distinguishing nurses as professionals rather than just academics (Hariti et al., 2020; Somsap & Varee, 2023; Widjadja & Saragih, 2018).

Previous research highlights that effective workers need both technical (hard) skills, such as knowledge of procedures and equipment, and personal (soft) skills, such as communication, empathy, and adaptability (Hariti et al., 2020; Priyono et al., 2021; Sandra et al., 2023; Sopa et al., 2020).

Soft skills are increasingly essential in clinical settings. Chaonarin et al. (2022) and Jamaludin et al. (2021) highlighted how communication and teamwork affect patient outcomes and inter-professional relationships. Critical thinking and problem-solving help manage unpredictable situations (Priyono et al., 2021). Murphy (2023) noted that soft skills improve teamwork, reduce errors, and foster a positive culture. These findings show that nursing students need technical knowledge and key soft skills for effective service delivery.

In Thailand, nursing programs incorporate both academic coursework and clinical practice to develop these competencies. Students participate in clinical placements at hospitals or community settings, spanning approximately 1,500-2,000 hours and taking place from Year 2 to Year 4 of the 4-year Bachelor of Nursing Science program

(Thailand Nursing and Midwifery Council (TNMC), 2019). These placements rotate through various departments, including inpatient wards, pediatrics, and outpatient care (Thailand Nursing and Midwifery Council (TNMC), 2019). During these placements, students have applied classroom knowledge in real-life scenarios, practicing both hard and soft skills under the supervision of clinical instructors and preceptors. Despite the standard curriculum, nursing students often struggle to apply soft skills in clinical settings.

Previous studies have noted a gap between theoretical instruction and the real-world demands. For example, Sopa et al. (2020) investigated the use of hard and soft skills among 573 Indonesian employees using questionnaires. The researchers found that academic and technical (hard) skills did not connect to personal (soft) skills in real-world situations, thus universities

needed to integrate more soft skills training into their curricula. Furthermore, Widjadja and Saragih (2018) investigated the roles of hard and soft skills (interpersonal and intrapersonal) in enhancing nurse performance. The researchers found that all three variables—hard skills, interpersonal skills, and intrapersonal skills—have a significant impact on nursing performance, both individually and collectively.

Few studies have explored how Thai nursing students use hard and soft skills during clinical practice in public hospitals. This study investigates their experiences and asks: How do these students apply hard and soft skills in Thai public hospitals?

A qualitative phenomenological approach captured students' personal experiences, suitable for exploring complex, context-dependent, subjective experiences.

**Table 1** Classification of Soft Skills.

Classification of Soft Skills	Types
Intrapersonal skills	Attitudes and confidence, time management, critical thinking, Creative problem solving, empathy, work ethics, and adaptability
Interpersonal skills	Communication, Teamwork, Relationship building, Leadership, and Negotiation

Adapted from Sandra et al., 2023; Widjadja & Saragih, 2018.

### *Challenges in Applying Hard and Soft Skills During Clinical Practice*

Despite educational efforts, the transition from classroom learning to clinical application remains challenging. Students report feeling underprepared when facing real patients, particularly in situations that require empathy, ethical decision-making, or rapid problem-solving (Hardie et al., 2022). Cultural factors, such as respect for hierarchy and limited student autonomy, could further restrict students' ability to practice these skills (Jamaludin et al., 2021). Moreover, the variability of hospital environments—differences in team dynamics, patient demographics, and institutional resources—affects how students engage with both hard and soft skills.

Previous research studies (e.g., Chaonarin et al., 2021; Hariti et al., 2020; Sandra et al. (2023), Priyono et al. (2021), and Widjadja & Saragih (2018) have acknowledged the importance of hard and soft skills in nursing, yet

few studies have examined how nursing students in Thailand experience the integration of these skills during clinical practice. As nursing students in public hospitals have to encounter diverse patients and hierarchical workplace cultures, this context makes it particularly important to examine how students apply both skills in practice. Consequently, this study addresses a significant gap by examining how Thai nursing students use both hard and soft skills in clinical settings, including the challenges they face and the strategies they adopt to address them.

## Methodology

### *Results and Discussion*

This study aimed to explore the hard and soft skills employed by third-year nursing students during their clinical practice in public hospitals. Using a phenomenological approach, the researchers sought to understand both what the students experienced (textural description)

and how they experienced it (structural description), as they navigated their roles within real healthcare settings.

Table 2 represents the area of the hospitals and departments where nursing students worked.

As shown in Table 2, 10 nursing students gained professional experience through clinical practice across various departments in public hospitals in Bangkok and Chachoengsao provinces.

To illustrate the types of experiences shared by participants during their clinical practice, an excerpt from one nursing student's

interview is presented in Table 3. This extract highlights how one participant demonstrated both hard and soft skills when working in the hospital.

Table 3 presents a brief excerpt from an interview with a nursing student (NS3) describing her clinical practice experiences and interactions with patients, peers, and supervisors.

As presented in Table 3, the nursing student's description demonstrated how both hard and soft skills were employed in real clinical practice. The student applied both skills through hands-on experience.

**Table 2** The hospitals' locations and departments.

Interviewees	Areas of public hospitals	Departments Assigned
NS 1	Chachoengsao	Intensive Care Unit (ICU) Medicine Department
NS 2	Chachoengsao	In-patient Department (IPD) Surgery Department
NS 3	Bangkok	In-patient Department (IPD) Medicine Department
NS 4	Chachoengsao	Intensive Care Unit (ICU) Medicine Department
NS 5	Chachoengsao	Intensive Care Unit (ICU) Medicine Department
NS 6	Chachoengsao	Pediatric Intensive Care Unit (PICU) Medicine Department
NS 7	Bangkok	Out-patient Pediatric Department (OPD)
NS 8	Bangkok	Out-patient Pediatric Department (OPD)
NS 9	Bangkok	In-patient Department (IPD) Surgery Department
NS 10	Bangkok	In-patient Department (IPD) Surgery Department

**Table 3** Interview Extract from NS.3 Illustrating a Nursing Student's Clinical Practice Experience.

No.	Verbatim Quote	Skill type	Textual Description (what)	Structural Description (How)	Emergent Theme
NS.3	"My friends and I smilingly greeted our seniors with 'Wai'..."	Soft- respect	Greeted senior nurses upon arrival	With respect, positivity, and adherence to social norms	Respect and seniority
	"We hurried because we had to prepare for the morning meeting."	Soft - Work ethic	Prepared early for the shift handover meeting	Be responsible, didn't want others to wait	Responsibility and time management

No.	Verbatim Quote	Skill type	Textual Description (what)	Structural Description (How)	Emergent Theme
	"This helped me practice the medical skills that I had learned in the class."	Hard – Knowledge	Practiced clinical skills during the morning meeting	Appreciated the real-world application of theory	Transition from theory to practice
	"Pee Pee always asked my friends and me to check our understanding."	Soft – Teamwork	Received guidance from senior nurses	Felt supported, motivated to learn more	Peer/senior mentoring (Teamwork)
	"We needed to do this process gently to ensure that patients did not feel in pain and were comfortable."	Both Hard - Knowledge Soft - Empathy	Performed body care for the bedridden patients	Showed compassion, careful attention to the patient's comfort	Empathy in clinical procedures
	"I said some words that I hoped would cheer them up."	Soft – Communication	Comforted the patient's relatives	Felt emotional, wanted to ease their distress	Emotional sensitivity and empathy
	"My friend and I had to help each other..."	Soft – Teamwork	Collaborated on patient care tasks	Relied on mutual help and support	Collaboration and coordination

**Table 4** The hard and soft skills used across participants.

Skills	Emergent Theme
Soft skills	Intrapersonal skills <ul style="list-style-type: none"> <li>• responsibility</li> <li>• Time management</li> <li>• Adaptability to new Departments</li> <li>• Empathy</li> <li>• Work ethics</li> </ul> Interpersonal skills <ul style="list-style-type: none"> <li>• Teamwork with peers and senior nurses</li> <li>• Communication with patients, patients' relatives, and peers</li> <li>• Relationship building</li> <li>• Leadership</li> </ul>
Hard skills	<ul style="list-style-type: none"> <li>• Use of Medical Knowledge</li> <li>• Use technology to gain unknown or unclear information</li> </ul>
Both hard and soft skills	<ul style="list-style-type: none"> <li>• Critical thinking and creative problem-solving in clinical practice</li> </ul>

Table 4 summarizes the hard and soft skills demonstrated by 10 nursing students during their clinical practice.

Table 4 demonstrates that 10 nursing students usually applied these hard and soft skills during clinical practice.

The findings of this study indicate that nursing students applied both hard and soft skills during their clinical practice. In terms of hard skills, students drew on the academic knowledge they had gained from coursework and prior clinical experiences. They demonstrated

technological proficiency, like searching online for additional medical information, to ensure their clinical treatment. Soft skills were evident in both intrapersonal and interpersonal domains. Many nursing students reported the importance of time management. They stated that they had an online class every night after their clinical practice and that they needed to submit medical reports every day. Thus, they had to manage their time for study and complete their reports. Also, since nursing students had to change their department every two weeks, they said they had to study the assigned department before changing. They asked their classmates and preceptors for information to help them prepare and adjust to the new departments. These could help them build their relationship. Apart from changing departments, all nursing students stated that when they worked, they always supported each other. Teamwork and communication were also essential components of their clinical practice, enabling them to share knowledge and complete tasks efficiently. Most nursing students reported that when they had problems with their treatment, such as providing personal hygiene care to a bedridden patient, classmates, preceptors, or senior nurses would help or explain how to address the problem. Furthermore, senior nurses always held a morning meeting to discuss treatment and patients' conditions. Additionally, students stated that they applied work ethics, responsibility, and empathy when they took care of sensitive patient conditions, particularly bedridden patients, depression, or unconsciousness.

Critical thinking was used, particularly in tasks such as verifying medical dosages and ensuring patient identity before administering treatment. Additionally, most students reported seeking opportunities to improve themselves through observation, collaboration, and feedback.

However, the findings reveal limitations in conflict resolution, influenced by hierarchical culture in clinical settings. While students reported confidence interacting with peers and preceptors, a few expressed distinct discomfort communicating directly with senior nursing staff. This struggle is likely rooted in the broader Thai cultural value of *kreng jai*. This cultural norm—often described as considerate, non-assertive, and avoidance-oriented, especially with seniors—directly impedes

students' ability to negotiate and clarify procedures or to assertively seek necessary information, thereby creating a structural barrier to their professional development in the clinical environment. Consequently, their capacity for effective negotiation was underdeveloped.

To solve this problem, many nursing students reported that they preferred discussing clinical cases with their classmates and preceptors and searching online resources rather than directly asking senior nursing staff. This coping mechanism allows students to mitigate the stress associated with direct communication with seniors while still ensuring they gather the necessary information to maintain their clinical professionalism.

These findings support the study's objective: nursing students employed both hard and soft skills while working in hospital settings. This integrated approach can be attributed to their desire to act professionally by aligning their behavior with academic preparation and prior clinical exposure. As Hariti et al. (2020) suggest, professionalism in nursing is demonstrated through the integration of knowledge, skills, attitudes, and behavior. Both sets of skills significantly affect nursing students' performance (Widjaja & Saragih, 2018). This aligns with research studies on Thai nurses. For example, Kongsuwan et al. (2019) found that both hard and soft skills were essential for Thai scrubs to perform their professional duties during the intraoperative phase. Additionally, Sandra et al. (2023) stated that proficiency in both skills makes nursing graduates highly desirable in the job market.

Furthermore, these skills supported nursing students in fulfilling their roles within the nursing preceptorship model (Hardie et al., 2022; Hariti et al., 2020). In this model, preceptors guide and evaluate students, helping them meet learning objectives and develop clinical competence. Students, in turn, applied both hard and soft skills to meet expectations and provide quality patient care (Kongsuwan et al., 2019).

## Conclusions and Recommendations

Based on the research results, nursing students applied hard and soft skills when working.

They employed hard skills-knowledge from their classes and previous experience, as well as technology-when they worked at the hospitals. The technological skills often employed by nursing students included searching the internet for additional clinical information.

Nursing students used intrapersonal and interpersonal soft skills to work effectively. Furthermore, nursing students demonstrated strong work ethics and a good attitude toward their responsibilities. They exhibited critical thinking and were adept at handling problems, checking medical dosages, and patients' names before each treatment. These were related to the work ethics they studied in class and to their awareness of their patients. In addition, nursing students understood the patients' conditions, particularly when patients felt depressed or unconscious. They tried to improve themselves by practicing and learning from others to become professionals. Therefore, nursing students demonstrated strong communication and teamwork skills, which helped them acquire new knowledge and complete their medical treatments. They also showed a preference for sharing new or unfamiliar information and demonstrated high adaptability. They were able to adapt to new workplaces or departmental environments.

Nevertheless, many nursing students struggled with conflict resolution and negotiation due to the hierarchical culture in the clinical setting. While they felt confident communicating with their peers and preceptors, they were often hesitant to speak openly with senior staff. This cultural dynamic, likely related to the Thai value of *Kreng Jai* (being considerate and non-assertive toward seniors), created a structural barrier to direct communication. As a result, students often addressed clinical uncertainties by asking questions or seeking recommendations from less authoritative sources-namely, classmates, preceptors, or online resources-rather than engaging the most experienced nurses.

The challenges associated with the hierarchical culture carry profound implications for nursing education in the Thai context. Curriculum development should move beyond standard communication training to include culturally sensitive assertive communication

strategies. Education must incorporate specific scenarios, such as role-playing or simulation, designed to help students practice communicating assertively and respectfully with senior staff and preceptors. This is essential for effectively navigating the inherent tension between professional duty and the cultural expectation of *kreng jai*. This is necessary to bridge the gap between academic ideals and the realities of the Thai clinical setting.

Regarding the results, nursing students consistently employed both hard and soft skills while working at the hospitals. A possible explanation is a professional attitude (Sopa et al., 2020; Widjadja & Saragih, 2018). When nursing students performed their duties, they aimed to act professionally by integrating the discipline gained from academic knowledge and previous clinical exposure. These combined knowledge, skills, attitudes, and behaviors are essential components of professional service. Therefore, their clinical work communication, teamwork, and critical thinking ensure effective and comprehensive patient care.

Likewise, nursing students employed both hard and soft skills to support their nursing preceptorship model (Hardie et al., 2022; Hariti et al., 2020; Widjadja & Saragih, 2018). The preceptorship establishes a professional educational relationship in which the preceptor serves as a role model, demonstrating professional practice and assessing the student's clinical competence. Furthermore, preceptors can assess the nursing student's clinical competence and provide feedback, support, and guidance. Therefore, nursing students attempted various ways to achieve the preceptors' objectives. By applying a range of hard and soft skills, students actively worked to meet the preceptors' learning objectives, complete assigned tasks, and ultimately provide quality patient care.

Still, since this study's results rely solely on nursing students' self-reports, a limitation known as social desirability bias may exist. Therefore, to triangulate the findings and strengthen the rigor of the results, future research should collect data from multiple sources. Subsequent studies could collect data simultaneously from patients, nursing preceptors, and nursing students to verify whether students'

self-reported use of hard and soft skills aligns with the perceptions of other participants.

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