



Resilience, nursing competence, and self-efficacy among staff nurses in selected government hospital in Ho Chi Minh City, Vietnam

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ABSTRACT

Objectives: This study aimed to examine the relationship between resilience, nursing competence, and self-efficacy among staff nurses in selected government hospitals in Ho Chi Minh City, Vietnam. **Methods:** A descriptive-correlational study was conducted among 364 staff nurses were surveyed using the Connor-Davidson Resilience Scale (CD-RISC 25), the Nurse Professional Competence Scale (NPCS), and the General Self-Efficacy Scale (GSE). Jamovi software was used in data analysis and included Pearson correlation and multiple regression analysis. **Results:** Overall resilience was rated high ($M = 3.05$, $SD = 0.54$). Nursing competence was also high ($M = 6.04$, $SD = 0.75$). Self-efficacy was very good ($M = 3.42$, $SD = 0.44$). Correlation analyses revealed significant positive relationships among resilience, competence, and self-efficacy ($p < .001$). Resilience was the strongest predictor of self-efficacy ($\beta = 0.504$), while competence had both direct ($\beta = 0.166$) and indirect ($\beta = 0.218$) effects through resilience. **Conclusion:** Self-efficacy is not an isolated construct but an integrated outcome of resilience and nursing competence. Interventions that strengthen both dimensions are essential to support professional confidence and enhance nursing practice in Vietnam.

Keywords: Resilience, nursing competence, self-efficacy, staff nurses.

INTRODUCTION

In the healthcare system, the nursing profession is regarded as an independent sector that contributes significantly to patient care. Besides the medicine and pharmacy professions, the nursing profession is gradually asserting its position in health. In addition, nurses must always work to advance their professional credentials in order to better meet the needs of their patients. To be confident in performing technical procedures, well-

versed in the field, and capable of creating patient care plans that are appropriate, every nurse is always enhancing their professional qualifications¹. Proactively approach and hone communication skills and basic theoretical qualifications to improve professional expertise and career courage and build a standard image of the nursing industry^{2,3}.

Resilience is considered a core capability for nurses in managing workplace challenges and adversity⁴. The challenge to nursing

is to remain flexible in responding to the increasingly complex needs of patients with complex medical and nursing problems, which demand more holistic, coordinated, and patient-centered care. Effective resilience-building interventions have been increasingly recognized as essential strategies to support nurses in recovering from stress and fostering professional growth, particularly during periods of uncertainty and rapid change ³. Several factors contributed to the development of nurses' resilience, and various supporting strategies in nursing management and education are helpful to their adaptability⁵. However, it is necessary to focus on the cultivation of nurses' resilience to improve the quality of clinical nursing ⁶.

The competence of practicing nurses substantially affects the quality of care and patient safety. There is a statistically significant association between patient care competence (OR = 4.03 and p = 0.003) and the effectiveness of training courses (OR = 5.97 and p = 0.003) ⁷. Previous studies have consistently highlighted strong associations among resilience, self-efficacy, and nursing competence, indicating that nurses with greater psychological resilience and self-confidence tend to demonstrate higher professional competence and deliver safer, higher-quality care ^{2,8}.

Resilience, general self-efficacy, nursing self-efficacy, and degree course year all predicted 34% of perceived competence ratings. For 76% of participants in the first and last years of the degree, the discriminant functions of nursing self-efficacy, perceived competence, and resilience were used. The correlation between academic level and increases in nursing self-efficacy, perceived competence, and resilience is observed ⁹.

According to Cabrera-Aguilar, the link between resilience, stress, and the job engagement of nurses is influenced by personal resources such as self-efficacy. Enhancing self-efficacy and resilience has the potential to enhance nurses' satisfaction with their jobs and work engagement. Effective measures to enhance registered nurses' resilience, stress management, work engagement, and self-efficacy should be developed by hospital administrators and nursing managers. The results indicated a positive relationship between resilience and self-efficacy ².

The interplay between resilience, nursing competence, and self-efficacy is complex yet essential for effective nursing practice. Research by Chen et al., 2024 identified professional autonomy and job satisfaction as key predictors of resilience among nurses, indicating that enhancing these factors could foster resilience and, in turn, improve self-efficacy and competence ¹⁰. Furthermore, interventions aimed at improving resilience and self-efficacy can have a cascading effect on nursing competence. Training programs that incorporate mindfulness and stress management techniques can enhance resilience, which may lead to increased self-efficacy and improved clinical performance¹¹.

However, in Vietnam, the interaction among resilience, nursing competence, and self-efficacy remains unclear, as no prior research has comprehensively examined this relationship. Therefore, this study aims to identify the relationship between resilience, nursing competence, and self-efficacy among staff nurses in selected government hospitals in Ho Chi Minh City, Vietnam

The findings of the study will indicate whether the staff nurses adequately demonstrate resilience, competence, and

self-efficacy as needed in nursing practice. This evaluation will provide insights into the current state of nursing practice in these hospitals and identify areas for potential improvement.

METHODS

Participants: Staff nurses in selected hospitals in Ho Chi Minh, Vietnam.

Inclusion criteria: Full-time staff nurse in the departments.

Exclusion criteria: Participants who are on leave during the data collection period, those working part-time in departments, and those holding managerial positions.

Study design: A descriptive correlational was conducted.

Sample size and sampling technique: A sample of 364 staff nurses was calculated using G*Power to achieve a statistical power of 0.95 and a significance level of 0.05. A small effect size of 0.045 was assumed, with a 5% attrition rate considered.

Random sampling was applied.

Instruments

Connor-Davidson Resilience Scale 25 (CD-RISC-25): The Connor-Davidson Resilience Scale (CD-RISC-25) was developed in 2003 to measure resilience across five domains: active coping, cognitive flexibility, positive emotion, optimism, and spirituality. It comprises 25 items rated on a 5-point Likert scale (not true at all = 0, rarely true = 1, sometimes true = 2, often true = 3, and true nearly all the time = 4), with higher scores indicating greater resilience. Items are scored based on a five-point Likert scale¹².

The Nurse Professional Competence Scale (NPC): The Nurse Professional Competence (NPC) Scale is a 35-item self-

assessment tool comprising six factors: nursing care, value-based nursing care, medical and technical care, care pedagogics, documentation and administration of nursing care, and development, leadership, and organization of nursing care. Items are rated on a 7-point Likert scale (1 = very low to 7 = very high), with higher scores reflecting greater competence. The scale has demonstrated acceptable internal consistency, with Cronbach's alpha ranging from 0.71 to 0.86 across the six factors¹³.

General Self-Efficacy Scale (GSE): The General Self-Efficacy Scale (GSE) is a 10-item self-report instrument rated on a 4-point Likert scale (1 = not at all true to 4 = exactly true). Higher scores indicate stronger self-efficacy. The scale has shown good internal reliability, with Cronbach's alpha values ranging from 0.76 to 0.90¹⁴.

The CD-RISC-25, NPC, GSE questionnaires were translated into Vietnamese and a pilot test will be conducted. The back - translation method was used to translate the questionnaires into Vietnamese¹⁵.

Data collection: Data collection was conducted from April to June 2025 at one government hospital in Ho Chi Minh, Vietnam. A self-administered structured questionnaire was used, and participants were asked to complete it within approximately 15 minutes.

Data analyses: We used Jamovi software version 2.6 for analysis. CD-RISC-25, NPC and GSE scores and subscale scores were reported as mean and standard deviation. The Pearson correlation test and multiple regression analysis were used to explore the relationship between associated factors. All analyses were done with confidence intervals of 95% and p-values less than 0.05.

Ethical considerations: This study adhered to the ethical principles outlined in the Declaration of Helsinki and was approved by the Ethical Review Board at Trinity University of Asia before data gathering (Protocol Code: 2024-1st-CNU-Nguyen-v2, August 27, 2024). Respondent anonymity was maintained by removing all potential identifiers. Participants were informed that they could withdraw from the study at any time without any impact on their academic activities. All responses were used solely for research purposes, and the risks associated with completing the survey questionnaire were less than minimal.

RESULTS

Table 1. Resilience among staff nurses

Indicators	Mean	Interpretation	SD
Active coping	2.72	High	0.748
Cognitive and Flexibility	2.76	High	0.634
Positive Emotion	3.13	High	0.612
Optimism	2.90	High	0.662
Spirituality	3.73	Very High	0.547
Resilience	3.05	High	0.54

Legend: 3.25 - 4.00: Very high; 2.50 - 3.24: High; 1.75 - 2.49: Average; 1.00 - 1.74: Low; 0.00 - 0.99: Very Low

Table 1 shows the resilience scores of staff nurses in selected government hospitals in Ho Chi Minh City. The overall mean resilience score was 3.05 (SD = 0.54), interpreted as High. Among the five domains, spirituality obtained the highest mean score (M = 3.73, SD = 0.547, Very High), indicating that spiritual beliefs and practices serve as an important source of strength. In contrast, active coping scored the lowest (M = 2.72, SD = 0.748, High). Other domains, including cognitive flexibility (M = 2.76, SD = 0.634), positive emotion (M = 3.13, SD = 0.612), and optimism (M = 2.90, SD = 0.662), were all rated High.

Table 2. Nursing competence among staff nurses

Indicators	Mean	Interpretation	SD
Nursing care	5.98	To a high degree	0.805
Value based nursing care	6.07	To a high degree	0.833
Medical and technical care	6.15	To a very high degree	0.821
Care pedagogics	6.07	To a high degree	0.832
Documentation and administration of nursing care	6.1	To a high degree	0.805
Development, leadership and organization of nursing care	5.85	To a high degree	0.907
Nursing competence	6.04	To a high degree	0.746

Legend: 6.143 – 7: To a very high degree; 5.286 - 6.142: To a high degree; 4.429 - 5.285: To a relatively high degree; 3.571 - 4.428: Either high or low degree; 2.714 - 3.570: To a relatively low degree; 1.857 - 2.713: To a low degree; 1 - 1.856: To a very low degree

Table 2 presents the nursing competence scores of staff nurses. The overall mean score was 6.04 (SD = 0.746), interpreted as “To a high degree”. The highest domain was medical and technical care (M = 6.15, SD = 0.821), rated “To a very high degree”. Other domains, including value-based nursing care (M = 6.07), care pedagogics (M = 6.07), documentation and administration of nursing care (M = 6.10), and nursing care (M = 5.98), were all rated “To a high degree”. The lowest score was development, leadership, and organization of nursing care (M = 5.85, SD = 0.907), though still within the high degree range.

Table 3. Self-efficacy among staff nurses

Statements	Mean	Interpretation	SD
I can always manage to solve difficult problems if I try hard enough	3.48	Exactly True	0.532
If someone opposes me, I can find the means and ways to get what I want	3.2	Moderately true	0.628
It is easy for me to stick to my aims and accomplish my goals	3.5	Exactly True	0.563
I am confident that I could deal efficiently with unexpected events	3.34	Exactly True	0.575
Thanks to my resourcefulness, I know how to handle unforeseen situations	3.33	Exactly True	0.572
I can solve most problems if I invest the necessary effort	3.47	Exactly True	0.577
I can remain calm when facing difficulties because I can rely on my coping abilities	3.45	Exactly True	0.566
When I am confronted with a problem, I can usually find several solutions	3.51	Exactly True	0.563
If I am in trouble, I can usually think of a solution	3.52	Exactly True	0.572
I can usually handle whatever comes my way	3.38	Exactly True	0.579
Overall Rating	3.42	Very Good	0.438

Legend: 3.25 - 4.00: Exactly True/Very Good; 2.50 - 3.24: Moderately true/Good; 1.75 - 2.49: Hardly true/Poor; 1.00 - 1.74: Not at all true/Very Poor

Table 3 presents the self-efficacy scores of staff nurses in selected government hospitals in Ho Chi Minh City. The overall mean score was 3.42 (SD = 0.438), verbally interpreted as Very Good. The highest-rated item was “If I am in trouble, I can usually think of a solution” (M = 3.52, SD = 0.572), while the lowest was “If someone opposes me, I can find the means and ways to get what I want” (M = 3.20, SD = 0.628). These findings indicate that nurses generally possess strong confidence in their ability to handle challenges and manage unforeseen situations effectively.

Table 4. Correlational analysis between resilience, nursing competence, and self-efficacy among staff nurses

		Resilience	Nursing Competence
Nursing Competence	Pearson's r	0.432***	-
	p-value	< 0.001	-
Self-Efficacy	Pearson's r	0.576***	0.384***
	p-value	< 0.001	< 0.001

Legend: |Pearson's r|: 0.01 – 0.19: No or Negligible relationship; 0.20 – 0.29: Weak relationship; 0.30 – 0.39: Moderate relationship; 0.40 – 0.69: Strong relationship; ≥ 0.70: Very strong relationship

Table 4 demonstrates statistically significant correlations among resilience, nursing competence, and self-efficacy of staff nurses. A strong positive correlation was observed between resilience and nursing competence ($r = 0.432$, $p < 0.001$). Moreover, resilience was strongly correlated with self-efficacy ($r = 0.576$, $p < 0.001$), while nursing competence also showed a moderate positive correlation with self-efficacy ($r = 0.384$, $p < 0.001$).

Table 5. The summary test for direct effect, indirect effect, and total effect of distributed resilience, nursing competence, and self-efficacy among staff nurses

Type	Effect	Estimate	SE	95% C.I. (a)		β	z	p
				Lower	Upper			
Indirect	Competence \Rightarrow Resilience \Rightarrow Self-efficacy	0.1277	0.0183	0.0918	0.164	0.218	6.97	<0.001
Component	Nursing Competence \Rightarrow Resilience	0.3132	0.0343	0.246	0.38	0.432	9.13	<0.001
	Resilience \Rightarrow Self-efficacy	0.4077	0.0378	0.3337	0.482	0.504	10.8	<0.001
Direct	Nursing Competence \Rightarrow Self-efficacy	0.0977	0.0274	0.044	0.151	0.166	3.56	<0.001
Total	Nursing Competence \Rightarrow Self-efficacy	0.2254	0.0284	0.1696	0.281	0.384	7.92	<0.001

Table 5 summarizes the direct, indirect, and total effects of resilience, nursing competence, and self-efficacy among staff nurses. Nursing competence had a significant indirect effect on self-efficacy through resilience ($\beta = 0.218$, $p < .001$), with resilience showing the strongest pathway to self-efficacy ($\beta = 0.504$, $p < .001$). The direct effect of nursing competence on self-efficacy was smaller but still significant ($\beta = 0.166$, $p < .001$). Overall, the total effect of nursing competence on self-efficacy was $\beta = 0.384$ ($p < .001$), indicating that resilience partially mediates this relationship.

DISCUSSION

This study examined the interrelationships between resilience, nursing competence, and self-efficacy among staff nurses in selected government hospitals in Ho Chi Minh City, Vietnam. The results demonstrate the positive associations between these constructs and how they work together to create an integrated framework that supports professional functioning in demanding healthcare environments.

The overall resilience of staff nurses was rated high ($M = 3.05$, $SD = 0.54$). Among the subdomains, spirituality emerged as the strongest factor ($M = 3.73$, $SD = 0.547$, very high), suggesting that inner values and beliefs play a critical role in helping Vietnamese nurses endure adversity. This echoes the work of Cheng et al. (2021), who found that spiritual competence was significantly related to nurses' self-efficacy, and Han et al. (2023), who identified spirituality and cultural beliefs as central to resilience development^{6,8}. Conversely, active coping received the lowest score ($M = 2.72$, $SD = 0.748$), implying that while nurses adapt emotionally and spiritually, behavioral coping strategies remain less developed. This imbalance is consistent with findings by Henshall et al. (2020a), who emphasized the importance of resilience enhancement programs, and Cajanding (2021), who highlighted organizational-level interventions such as mindfulness and stress management training to strengthen active coping in clinical environments^{16,17}.

Nursing competence was reported at a high degree overall ($M = 6.04$, $SD = 0.746$). The highest subdomain was medical and technical care ($M = 6.15$, $SD = 0.821$,

very high), reflecting confidence in clinical procedures and technical proficiency. This aligns with Nguyệt et al. (2023), who showed that competence in patient care and technical training strongly correlates with care quality and safety outcomes⁷. Lower scores were observed for development, leadership, and organization of nursing care ($M = 5.85$, $SD = 0.907$), suggesting that while nurses are technically skilled, managerial and leadership competencies may require further cultivation. Similar findings were reported by Ivanišević et al. (2022) and Notarnicola et al. (2023), who noted variability in self-perceived competence across domains and emphasized the need for structured leadership development programs in nursing education and practice^{5,18}.

Self-efficacy was rated very good ($M = 3.42$, $SD = 0.438$). Nurses expressed strong confidence in their ability to solve problems and handle unforeseen situations, with the highest score for "If I am in trouble, I can usually think of a solution" ($M = 3.52$, $SD = 0.572$). These results resonate with Tomita (2024), who demonstrated that self-efficacy is a significant predictor of nursing practice competence¹⁹. However, the lowest rating was for "If someone opposes me, I can find the means and ways to get what I want" ($M = 3.20$, $SD = 0.628$), suggesting less confidence in conflict resolution or assertive communication. This limitation is consistent with Lee et al. (2023), who emphasized that communication competence and organizational support are critical to fostering self-efficacy during nurse handoffs, and Mehralian et al. (2023), who linked self-efficacy to communication and spiritual intelligence^{20,21}.

Correlation analyses demonstrated significant positive relationships among resilience, nursing competence, and self-efficacy. Resilience was strongly correlated with self-efficacy ($r = 0.576, p < 0.001$) and nursing competence ($r = 0.432, p < 0.001$). Nursing competence showed a moderate correlation with self-efficacy ($r = 0.384, p < 0.001$). These findings confirm earlier research by Cabrera-Aguilar et al. (2023), who reported that resilience and self-efficacy are critical predictors of work engagement among nurses, and Ghasempour et al. (2024), who demonstrated similar associations in Iranian nurses ^{2, 22}.

Moreover, resilience acts as the strongest predictor of self-efficacy ($\beta = 0.504, p < 0.001$) and partially mediates the relationship between nursing competence and self-efficacy. Nursing competence exerted both direct ($\beta = 0.166, p < 0.001$) and indirect effects through resilience ($\beta = 0.218, p < 0.001$), confirming its foundational but mediated role. This model aligns with Cooper et al. (2022), who emphasized the influence of external factors on resilience, and with Cabrera-Aguilar et al. (2023), who described self-efficacy as a mediator linking resilience and engagement ².

The findings underscore the need for integrated interventions that simultaneously build resilience and competence to enhance self-efficacy. At the individual level, programs such as mindfulness, simulation-based learning, and Balint group sessions have been shown to enhance coping skills, problem-solving, and resilience ²³. At the organizational level, leadership support, safe staffing, and professional development opportunities are vital in reinforcing nurses' confidence and competence ^{24, 25}. Given that

resilience partially mediates competence and self-efficacy, policies should focus not only on technical training but also on psychological and emotional support systems for nurses.

LIMITATIONS

As a descriptive-correlational study, the findings indicate associations but cannot establish causality between resilience, competence, and self-efficacy. The use of self-reported questionnaires may also introduce bias, and the focus on selected government hospitals in Ho Chi Minh City may limit generalizability to other settings.

CONCLUSION

The study concludes that self-efficacy is not an isolated construct but an integrated outcome of resilience and nursing competence. Resilience provides the psychological foundation, competence represents the professional capacity, and together they shape nurses' confidence to perform effectively in demanding healthcare environments. The findings underscore the need for interventions that simultaneously strengthen resilience and competence through nursing education, hospital administration, and national policy frameworks to enhance the quality of nursing practice in Vietnam.

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CONFLICT OF INTEREST

The authors report there are no competing interests to declare.

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