

Work Environment, Quality Nursing Care and Job Satisfaction Among Staff Nurses in Selected Hospitals in Viet Nam

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ABSTRACT

Objectives: This study examines the relationships between work environment, nursing care quality, and job satisfaction among nurses in selected hospitals in Vietnam, aiming to propose a framework for improving nursing practice.

Methodology: A descriptive-correlation research design was used, involving 375 randomly selected staff nurses. Data were collected using validated tools: the Practice Environment Scale of the Nursing Work Index, the Quality Nursing Care Scale, and the Job Satisfaction Survey. The Statistical Package for Social Science (SPSS) software was used for data analysis. Descriptive statistics were used to measure the variables. Linear regression was used to analyze the influence factors related to the quality of nursing care in the selected hospitals Vietnam.

Results: The study results showed that the work environment was rated at 2.64 (SD = .42), quality nursing care at 4.59 (SD = .38), and job satisfaction at 3.52 (SD = .47). The work environment strongly correlated with both quality nursing care ($r = .57, p < .01$) and job satisfaction ($r = .52, p < .01$), while a moderate correlation existed between quality nursing care and job satisfaction ($r = .32, p < .01$). Linear regression indicated that the work environment ($\beta = .26, p < .001$) and job satisfaction ($\beta = .22, p < .001$) were significant predictors of quality nursing care, explaining 23.9% of the variance.

Conclusions: These findings indicate that nursing care quality is satisfactory and that work environment, and job satisfaction are key factors influencing quality. It is suggested that improving the work environment and job satisfaction can enhance the quality of nursing care in Vietnamese hospitals.

Keywords: Work environment, Job satisfaction, nursing care quality, staff nurses, Vietnam.

1. INTRODUCTION

Nurses in healthcare organizations are grappling with staff shortages, increasing patient loads, reduced reimbursements, and regulatory pressures. These challenges include understaffing, poor responsibility distribution, high workloads, low salaries, and limited opportunities for professional development [2]. The work environment, a critical factor influencing workforce stability, has been identified as essential for recruiting and retaining high-quality staff [14]. The nursing practice environment, defined as the organizational characteristics that facilitate or constrain professional nursing, plays a pivotal role in this context.

Recent studies have increasingly focused on improving quality nursing care, recognizing that nurses are

often the first point of contact for patients and play a key role in comprehensive care models. Quality nursing care significantly impacts patient well-being, influencing both health outcomes and nurse job satisfaction [7]. This has become a major concern for healthcare providers and patients alike. The World Health Organization (WHO) has released national quality policies and strategies aimed at enhancing healthcare quality and patient safety [1]. Job satisfaction, closely tied to quality care, is also crucial as it affects nurse performance and reduces burnout, commitment issues, and turnover.

Understanding the factors contributing to job satisfaction and quality nursing care is essential, as these directly impact the healthcare industry. If nurses are unable to provide quality care, patient turnover increases. This study aims to explore the relationship between work environment, quality nursing care, and job satisfaction among nurses in selected hospitals in Vietnam, with the goal of proposing strategies to improve nursing practice.

2. RESEARCH METHODOLOGY

2.1. Study design

This study utilized descriptive-correlation research design to evaluate the influence of work environment, quality nursing care, and job satisfaction among nurses working in hospitals.

2.2. Research sites

The population of the study consisted of nurses from selected hospitals in Vietnam, specifically Cho Ray Hospital (3500-bed capacity, 1968 nurses) and Can Tho Central General Hospital (1500-bed capacity, 800 nurses), both similar in hospital category, medical services, bed capacity, and staffing.

2.3. Population, Sample size, and Sampling Technique

The two selected hospitals employ over 2700 nurses. Using G*power with an analyzed power of 0.90, an effect size of 0.50, and a significance level of 0.05, the required minimum sample size was 374 respondents, who were randomly selected.

2.4. Research Instruments

1. A demographic data form developed by the researchers, covering gender, age, marital status, education level, area of assignment, work shift, experience, and weekly working hours.
2. The Practice Environment Scale of the Nursing Work Index (PES-NWI) by Lake (2002), containing 31 items across five dimensions, rated on a four-point Likert scale (1 = strongly disagree to 4 = strongly agree), with overall ratings ranging from very poor to very good.
3. The Good Nursing Care Scale (GNCS), developed by Leino-Kilpi (1996) and revised by Phong (2023), consisting of 55 items across seven dimensions, rated on a six-point Likert scale (1 = do not know to 6 = fully agree).
4. The Job Satisfaction Survey (JSS) by Paul E. Spector (1997), comprising 36 items across nine elements, rated on a six-point Likert scale (1 = strongly disagree to 6 = strongly agree).

Instrument reliability was pilot-tested with 30 nurses. The Cronbach's alpha coefficients were 0.90 for PES-NWI, 0.94 for GNCS, and 0.88 for JSS, indicating high reliability. In this study, with 375 nurses, the Cronbach's alphas were .93, .89, and .83 for PES-NWI, GNCS, and JSS, respectively.

2.5. Data Collection and Analysis

Data collection took place in 2023, with instruments distributed by research assistants at each hospital and returned in sealed folders to the principal investigator. A total of 390 questionnaires were distributed, and 375 (96.15%) were completed and analyzed. Descriptive statistics were used to analyze the scores, and factors related to QNC were examined using stepwise multiple regression analysis and path analysis.

2.6. Ethical considerations

Research approval was obtained from the Faculty of Nursing Ethics Committee at Trinity University of Asia. Permissions were also secured from the directors of the two hospitals in Vietnam. All participants signed consent forms, ensuring their rights to privacy and confidentiality.

3. RESULTS

3.1. General information of study nurses

Table 3.1. Demographic and work characteristics of study nurses (n=375)

Characteristics	Frequency	Percentage (%)
Gender		
Male	71	18.9 %
Female	304	81.1 %
Age (years old) (\bar{X} =34.90, SD =9.09, Range = 22-56 years old)		
21 - 34 years old	219	58.4 %
35 - 48 years old	109	29.1 %
49-52 years old	25	6.7 %
53-59 years old	22	5.9 %
Marital status		
Single	114	30.4 %
Married	256	68.3 %
Divorced	5	1.3 %
Educational level		
Secondary	4	1.1 %
Diploma	206	54.9 %
Bachelor	162	43.2 %
Masters	3	0.8 %
Area of Assignment		
Medicine	123	32.8 %
Surgical	126	33.6 %
Emergency	65	17.3 %
Ob&G dept	19	5.1 %
ICU/Operations	42	11.2 %
Work Shift		
24 hours	243	64.8 %
12 hours	71	18.9 %
8 hours	61	16.3 %
Work Experiences (\bar{X} =10.36, SD =8.87, Range = 1-36)		
1 - 5 years	147	39.2 %
6 - 10 years	88	23.5 %
11-15 years	54	14.4 %
16-20 years	34	9.1 %
more than 20 years	52	13.9 %

Number of Working Hours/Week		
at least 40 hours	34	9.1 %
41-45 hours	69	18.4 %
46-50 hours	131	34.9 %
more than 50 hours	141	37.6%

The majority of participants were female (304, 81.1%), with ages ranging from 21 to 59 years (average 34.9). Most were married (256, 68.3%) and held a diploma (206, 54.9%). A significant portion worked in the surgical department (126, 33.6%) on 24-hour shifts (243, 64.8%). Work experience varied, with 147 (39.2%) having 1 to 5 years of experience, and the average weekly working hours were 49.95.

3.2. Description of study variables

Table 3.2. Range, Mean, Standard Deviation and Dimension level of work environment reported by staff nurses (n=375)

Work Environment	Range	\bar{X}	SD	Level
Nurse participation in hospital affairs	1.22 -4.00	2.75	.49	Good/Agree
Nursing foundations for quality of care	1.30- 4.00	2.79	.48	Good/Agree
Nurse manager ability, leadership, and support of nurses	1.00-3.80	2.47	.50	Poor/Disagree
Staffing and resource adequacy	1.00-4.00	2.22	.66	Poor/Disagree
Collegial nurse-physician relations	1.00-4.00	2.76	.55	Good/Agree
Overall Work Environment	1.13-3.84	2.64	.42	Good/Agree

The results in Table 3.2 indicate that while the overall work environment was rated as "good" (M = 2.64, SD = 0.42), specific dimensions like "Staffing and resource adequacy" (M = 2.22, SD = 0.66) and "Nurse manager ability, leadership, and support" (M = 2.47, SD = 0.50) were rated lower.

Table 3.3. Range, Mean, Standard Deviation and Dimension level of nursing care quality reported by staff nurses (n=375)

Type of Quality Nursing Care	Range	\bar{X}	SD	Level
Service of safety care	1.33-6.00	4.44	.78	Very satisfied/ Agree
Nursing characteristics	2.00-6.00	4.77	.59	Very satisfied/ Agree
Nursing care activities	2.71-5.90	4.67	.44	Very satisfied/ Agree
Nursing competency	2.83-6.00	4.69	.74	Very satisfied/ Agree
Physical environment	2.17-5.67	4.22	.82	Somewhat satisfied/ Neither agree nor disagree
Nursing procedure	3.00-6.00	4.87	.50	Very Satisfied/Agree
Cooperation with relative	2.33-6.00	4.12	.82	Somewhat satisfied/ Neither agree nor disagree
Overall mean NCQ	3.13- 5.84	4.59	.38	Very satisfied/ Agree

The results in Table 3.3 shows that staff nurses rated most dimensions of nursing care quality as very satisfactory, with the highest scores in "Nursing procedures" (M = 4.87, SD = .50) and "Nursing characteristics" (M = 4.77, SD = .59). However, lower satisfaction was observed in "Cooperation with relatives" (M = 4.12, SD = .82) and "Physical environment" (M = 4.22, SD = .82).

Table 3.4. Range, Mean, Standard Deviation and Dimension level of job satisfaction reported by staff nurses (n=375)

Type of Job Satisfaction	Range	\bar{X}	SD	Level
Pay	2.00-5.75	3.73	.71	Satisfied slightly/ Agree slightly
Promotion	1.75-5.75	3.50	.70	Satisfied slightly/ Agree slightly
Supervision	1.75-5.75	3.76	.81	Satisfied slightly/ Agree slightly
Fringe Benefits	1.50-5.0	3.23	.64	Dissatisfied slightly/ Disagree slightly
Contingent Rewards	1.25-5.50	3.46	.71	Dissatisfied slightly/ Disagree slightly
Operating Conditions	1.25-5.00	2.93	.55	Dissatisfied slightly/ Disagree slightly
Coworkers	1.25-6.00	3.57	.74	Satisfied slightly/ Agree slightly
Nature of Work	2.00-6.00	4.00	.81	Satisfied slightly/ Agree slightly
Communication	1.75-6.00	3.57	.78	Satisfied slightly/ Agree slightly
Overall mean	2.39-4.97	3.52	.47	Satisfied slightly/ Agree slightly

The results in Table 3.4 indicate that overall job satisfaction among staff nurses was moderate (M = 3.52, SD = 0.47). Notably, satisfaction with pay (M = 3.73, SD = 0.71) and supervision (M = 3.76, SD = 0.81) was slightly higher, while satisfaction with fringe benefits (M = 3.23, SD = 0.64) and operating conditions (M = 2.93, SD = 0.55) were lower.

Table 3.5. Correlation analysis of the Relationship between work environment, nursing care quality and job satisfaction among staff nurses (n=375)

Variables	Computed r	Degree of Relationship	p Value	Inte-relation
Quality nursing care to Work environment	.57***	Strong relationship	.000	With significant correlation
Quality nursing care to Job satisfaction	.32***	Moderate relationship	.000	With significant correlation

Work environment to job satisfaction	.52***	Strong relationship	.000	With significant correlation
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The results in Table 3.5 demonstrate significant correlations between the work environment and quality nursing care ($r = .57, p < .001$), as well as between the work environment and job satisfaction ($r = .52, p < .001$). Additionally, a moderate correlation was found between quality nursing care and job satisfaction ($r = .32, p < .001$). These findings underscore the critical role of the work environment in influencing both job satisfaction and the quality of nursing care.

Table 3.6. Multiple regression analysis of the factors predicting NCQ

Steps Variables	B	Beta	p value
Work environment	11.91	.26	.000***
Job satisfaction	.68	.22	.000***

$R^2 = .224$; Adjusted $R = .239$; $F(2, 374) = 16.98$ *** $p < .001$

The results in Table 3.6 indicate that the work environment ($\beta = .26, p < .001$) and job satisfaction ($\beta = .22, p < .001$) are significant predictors of nursing care quality, together explaining 23.9% of the variance in NCQ among staff nurses. This underscores the importance of improving work conditions and job satisfaction to enhance nursing care quality.

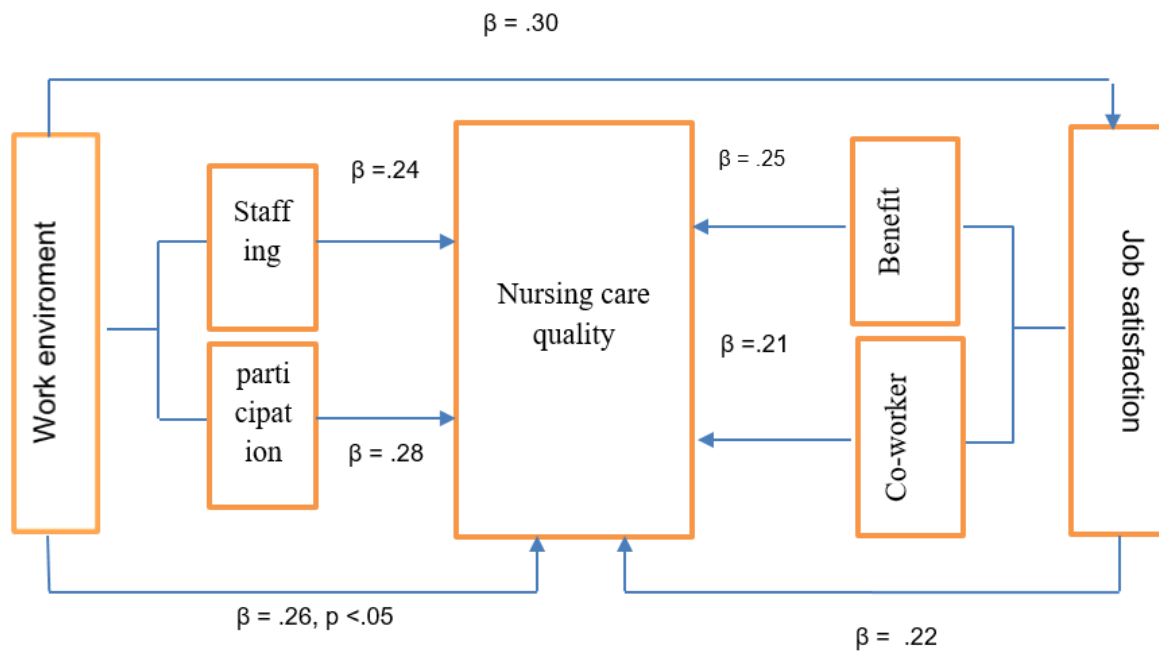


Figure 3.1. Conceptual framework of nursing care quality

The conceptual framework of nursing care quality presented in the figure 3.1 highlights the interconnectedness of key factors influencing nursing care quality. It emphasizes how the work environment, job satisfaction, and nursing practices interact to impact the overall quality of care provided by nurses. The framework serves as a guide for understanding the relationships between these variables, helping to identify areas for improvement in nursing care through targeted interventions and strategies [7].

4. DISCUSSION

4.1. Work environment

The overall work environment was rated as good ($M = 2.64$, $SD = 0.42$). However, specific aspects like nurse manager ability, leadership, and staffing adequacy were rated only poor. This suggests that many nurses in Vietnam experience a mixed work environment. Chronic understaffing and inadequate resources often lead to unsustainable workloads, resulting in decreased job satisfaction [8,11]. A positive work environment is essential for job satisfaction, as it directly influences nurse performance. Without sufficient support, job satisfaction diminishes, ultimately affecting the quality of care provided [5].

4.2. Nursing care quality

The overall rating for NCQ was very satisfactory ($M = 4.59$, $SD = 0.38$). However, the "Physical Environment" and "Cooperation with Relatives" scored lower, indicating potential gaps in patient and relative care. These lower scores may be attributed to inadequate staffing and nursing resources, as consistent with Wichaikhum et al. (2019), who highlighted insufficient time for patient and relative discussions under such conditions [12]. Papastavrou et al. (2020) also noted that room size, furniture placement, and workstation design can influence communication, teamwork, and safety [10]. In this study, patient-serving furniture, such as toilets, ventilation, beds, and pillows, received lower ratings ($M = 3.82$, $SD = 1.22$). The work environment had a direct positive effect on NCQ, indicating that nurses perceived their workplace favorably [13]. These findings align with previous studies showing that a positive work environment correlates with higher care quality [4]. Interestingly, factors like noise, lighting, and cleanliness were not identified by participants as affecting patient care quality.

4.3. Job satisfaction

The overall job satisfaction was slightly satisfied ($M=3.52$, $SD=0.47$). Job satisfaction is essential for nurses to deliver quality care, as confirmed by Farman et al. (2018), who found a positive relationship between job satisfaction and care quality [6]. Additionally, 87.6% of nurses believe that job satisfaction directly influences the quality of care provided [9]. Job satisfaction, a multidimensional concept, reflects the interaction between nurses' expectations, values, environment, and personal characteristics. Understanding and enhancing job satisfaction was crucial for achieving high-quality care and optimal clinical outcomes.

4.4. Relationship between work environment, nursing care quality, and job satisfaction among nurses in selected hospitals in Vietnam

The study result showed significant correlations between all independent variables and the dependent variable. The work environment had the strongest correlation with quality nursing care ($r = .57$, $p < .001$), followed by its correlation with job satisfaction ($r = .52$, $p < .001$), and then the correlation between quality nursing care and job satisfaction ($r = .32$, $p < .001$). These findings align with Ablotaibi (2022), who also observed a moderate correlation between the work environment and job satisfaction ($r = .055$, $p < .05$). Furthermore, there was a positive relationship between job satisfaction and the quality of care delivered, with workload, stress, and unsafe work environments identified as key factors affecting care quality [6]. The study suggests that nurses experience higher job satisfaction when their work environment supports optimal performance. Therefore, policymakers in Vietnam's healthcare institutions should focus on improving the work environment to enhance job satisfaction levels among nurses [3].

Limitations of the study

The study had several limitations. Firstly, the findings cannot be generalized to all hospital settings, as the research was conducted in specific tertiary care hospitals in Vietnam. Additionally, the possibility of

response bias exists, where staff nurses may have felt pressured to provide real answers about the quality of nursing care to protect their institution's reputation. Further research is needed to explore other factors influencing the quality of nursing care that were not included in this study.

5. CONCLUSIONS AND RECOMMENDATIONS

The study assessed the work environment, quality nursing care, and job satisfaction in two public tertiary hospitals in Vietnam, identifying work environment and job satisfaction as significant predictors of quality nursing care. While the work environment was rated as good and nursing care as very satisfactory, job satisfaction was only slightly satisfactory. The study highlights the need to measure nursing outcomes as a foundation for improving nursing care quality in Vietnam. Hospitals should reduce nurses' workloads by enhancing the work environment and recruiting more staff to address shortages. Strategies to create a supportive and positive work environment are essential for increasing job satisfaction and retaining nursing professionals. Additionally, implementing timely reward systems for well-performing employees can further motivate staff and improve public service delivery.

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