JOB SATISFACTION AND WORK ENVIRONMENT AMONG STAFF NURSES IN SELECTED HOSPITALS IN VIET NAM

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Article Info	Abstract
	Objectives: This study investigated the relationship between work environment and job satisfaction among nurses in selected hospitals in Vietnam to propose a framework for improving nursing practice. **Methods:** A descriptive correlational research design was used and 375 nurses were randomly selected. Data were collected using validated instruments: the Nursing Work Index Practice Environment Scale and the Job Satisfaction Survey. Data analysis was performed using the Statistical Package for Social Sciences (SPSS) software. Descriptive statistics were used to measure the variables. Differences in work environment and job satisfaction were examined according to demographic data using independent sample t-tests and one-way ANOVA. **Results:** The results showed that the work environment was scored as 2.64 (SD = .42) and the job satisfaction was scored as 3.52 (SD = .47). The work environment was highly correlated with job satisfaction (r = .52, p < .01). Furthermore, long working hours in a week can lead to decreased job satisfaction among employees. **Conclusion:** These results indicate that the work environment is one of the key factors affecting job satisfaction. This study underscores the need for creating a supportive work environment in hospitals to enhance quality nursing care.

1. Introduction

Nurses in healthcare facilities are struggling with staff shortages, increasing patient volumes, reduced reimbursement, and regulatory pressures. These challenges include staff shortages, poorly assigned responsibilities, heavy workloads, low wages, and limited professional development opportunities (Alotaibi, 2022). The work environment is a key factor in workforce stability and has been identified as essential for recruiting and retaining high-quality talent (Yahyaei et al., 2022). The nursing practice environment, defined as the organizational characteristics that facilitate or hinder professional nursing, plays a vital role in this regard. In Vietnam, the work environment and the issues

associated with it are always overlooked. Work and workplace tools have become an essential part of today's environment. Harmful, unsafe, and dangerous environments can cause huge problems in the work environment. Likewise, the psychosocial work environment (supervisory support, trust, workload, recognition, rewards) has emerged as one of the determining factors for nurses' performance in hospitals. Lack of support can reduce employee motivation and lead to significant dissatisfaction.

Recent studies have increasingly focused on improving job satisfaction, recognizing that nurses are often the first point of contact for patients and play a key role in integrated care models. Job satisfaction has a significant impact on patient well-being and health outcomes (Kunaviktikul et al., 2020). This has become a major concern for healthcare providers and patients. Job satisfaction is also crucial as it affects nurses' performance and prevents burnout commitment issues and turnover.

It is important to understand the factors that influence job satisfaction because they directly affect the healthcare industry. This study aims to investigate the relationship between work environment and job satisfaction among nurses in selected hospitals in Vietnam with the aim of proposing strategies to improve nursing practice.

2. Methods

2.1. Research Design: This study adopted a descriptive correlational research design to evaluate the effects of work environment and job satisfaction among hospital nurses.

2.2. Research Location: The study population included nurses from selected hospitals in Vietnam, specifically Cho Ray Hospital (3500 beds, 1968 nurses) and Can Tho Central General Hospital (1500 beds, 800 nurses), both of which belong to the hospital category with similar medical services, number of beds, and staffing levels.

2.3. Population, Sample Sizes and Sample 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 Instrument:

1. A demographic data sheet developed by the researcher covering gender, age, marital status, education level, work field, shift, experience, and weekly work hours.

2. Lake's (2002) Practice Environment in Nursing Inventory (PES-NWI), which contains 31 items in five dimensions, rated on a four-point Likert scale (1 = strongly disagree to 4 = strongly agree), with an overall rating ranging from very poor to very good.

3. Paul Spector's (1997) Job Satisfaction Survey (JSS) contains 36 items, 9 elements which are rated on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree). The reliability of the instrument was tested in a pilot test with 30 nurses. The Cronbach alpha coefficients were 0.90 for the PES-NWI and 0.88 for the JSS, indicating high reliability. In this study of 375 nurses, Cronbach's alpha values for the PES-NWI and JSS were 0.93 and 0.83, respectively.

2.5. Data Collection and Analysis Data collection was conducted in 2023, and the instruments were distributed by research assistants in each hospital and returned to the principal investigator in a sealed folder. A total of 389 questionnaires were distributed,

and 375 (96.40%) were completed and analyzed. The numerical information was then analyzed in comparison with previous studies and research. Descriptive statistics were used to describe the nurses' perceptions of their work environment and job satisfaction. Pearson correlation product moment was also used to test the significant relationship between work environment and job satisfaction.

Normality Test

As shown in table 1 the "One-Sample Kolmogorov-Smirnov Test" was conducted to test the normality of the data distribution. All variables did not follow a normal distribution ($p \leq 0.05$). Therefore, non-parametric tests (Mann-Whitney U test, Kruskal-Wallis test, and Spearman rank correlation) were considered.

TABLE 1. "One-Sample Kolmogorov-Smirnov Test"

	Work environment	Job satisfaction
Kolmogorov-Smirnov Z	2.64***	3.52***
Asymp. Sig.(2-tailed)	0.000	0.000
* p≤0.05, ** p≤0.01, *** p≤0.001		

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. Demographic Profile

TABLE 2. Demographic and work-related characteristics (n=375)

Characteristics	Frequency	Percentage (%)
Gender		
Male	71	18.9 %
Female	304	81.1 %
Age (years old) (=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 ($\overline{X}$ =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 result in table 2 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. Range, Mean, Standard Deviation, and Dimension level of work environment reported by staff nurses (n=375)

Work Environment	Range	$\overline{X}$	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	.49	Good/Agree

The result in table 3 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 4. Range, Mean, Standard Deviation, and Dimension level of job satisfaction reported by staff nurses (n=375)

Job Satisfaction	Range	$\overline{X}$	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 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 5. Correlation analysis of the Relationship between work environment, and job satisfaction among staff nurses (n=375)

Variables	Computed R	Degree of Relationship	p Value	Inte-relation
Work environment to job satisfaction	.52***	Strong relationship	.000	With significant correlation

The results in table 5 demonstrate a significant strong positive correlation between the work environment, and job satisfaction (r = .52, p < .001).

TABLE 6. Distribution of Working Environment and Job Satisfaction in terms of Demographic and Work- Related Characteristics.

Gender	Job satisfaction		Work environment	
	MD	Statistic/p value	*MD*	Statistic/p value
Male	191.27	*U=10.55/0.77*	*208.15*	*U=9361/0.8*
Female	187.24		183.29	
Age	Job satisfaction		Work environment	
	MD	Statistic/p value	*MD*	Statistic/p value
21 - 34 years old	184.63	*X²=3.15/0.36*	*183.90*	*X²=3.46/0.32*
35 - 48 years old	184.68		187.40	
49-52 years old	199.44		190.48	
53-59 years old	225.00		228.93	
Marital status	Job satisfaction		Work environment	
	MD	Statistic/p value	*MD*	Statistic/p value
Single	193.80	*X²=0.69/0.71*	*185.18*	*X²=0.31/0.85*
Married	186.23		188.99	
Divorced	166.75		167.25	

Educational level	Job satisfaction		Work environment	
Secondary	69.00	$X^2=0.69/0.71$	233.88	$X^2=2.34/0.50$
Diploma	196.79		193.42	
Bachelor	179.25		179.56	
Masters	215.67		210.50	
Area of Assignment	Job satisfaction		Work environment	
Medicine	193.79	$X^2=2.44/0.65$	203.27	$X^2=2.44/0.65$
Surgical	185.84		160.11	
Emergency	172.67		181.52	
OB Gyne	185.58		185.26	
ICU/Operations	202.36		238.30	
Work Shift	Job satisfaction		Work environment	
24 hours	204.35	$X^2=15.72^{***}/\leq 0.001$	192.79	$X^2=1.78/0.41$
12 hours	158.53		173.41	
8 hours	157.16		185.90	
Work Experiences	Job satisfaction		Work environment	
1 - 5 years		$X^2=10.21^{*}/\leq 0.05$		$X^2=1.51/0.81$
6 - 10 years				
11-15 years				
16-20 years				
more than 20 years				
Number of Working Hours/Week	Job satisfaction		Work environment	
at least 40 hours	208.46	$X^2=14.42^{**}/\leq 0.01$	201.46	$X^2=2.88/0.41$
41-45 hours	228.06		204.25	
46-50 hours	176.59		181.13	
more than 50 hours	174.06		183.19	

*$P\leq 0.05$, **$P\leq 0.01$, ***$P\leq 0.001$*

Keys:
U= A Mann Whitney U test
X^2= Kruskal Wallis
r= Spearman correlation

The results in table 6 a Mann-Whitney U test, the Kruskal-Wallis test, and Spearman's rank correlation were considered to present the distribution of working environment an job satisfaction in terms of demographic and work- related characteristics.

1. Work Environment:

The Kruskal- Wallis test revealed significant differences in perceptions of work environment in terms of area of assignment ($X^2=20.50.$ $p\leq 0.001$) with ICU/Operations recording the highest mean score *(MD=238.30)*.

2. Job satisfaction

The Kruskal- Wallis test revealed significant differences in perceptions of job satisfaction in terms of work shift ($X^2=15.72.$ $p\leq 0.001$) with 24 hours recording the highest mean score *(MD=204.35)*.

The Kruskal- Wallis test revealed significant differences in perceptions of job satisfaction in terms of work experiences ($X^2=14.42.$ $p\leq 0.01$) *with* more than 20 years recorded the highest mean score *(MD=216.08)*.

The Kruskal- Wallis test revealed significant differences in perceptions of job satisfaction in terms of a number of working hours/week ($X^2=10.21. p\leq0.05$) with 41-45 hours recorded the highest mean score *(MD=228.06)*.

4. Discussion

4.1. Work environment among nurses in selected hospitals in Vietnam

The overall work environment was rated as good (M = 2.64, SD = 0.42). However, specific aspects such as nursing management, leadership, and staff adequacy were rated as poor. This suggests that many nurses in Vietnam are experiencing a mixed work environment. Chronic staff shortages and inadequate resources often result in unsustainable workloads, leading to reduced job satisfaction (Kunaviktikul et al., 2020). 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 (Arsat et al., 2022). Moreover, the participant reported that the Collegial nurse-physician relations were good to create a positive and supportive environment to increase the quality of care, and maintaining good colleague relationships can contribute to healthy working environment taff shortages is one of the challenges encountered in nursing practice(Alsufyani et al., 2021).

4.2. Job satisfaction among nurses in selected hospitals in Vietnam

Overall job satisfaction was slightly satisfactory (M = 3.52, SD = 0.47). Job satisfaction is essential for nurses to provide quality care, as confirmed by Farman et al. (2018), who found a positive relationship between job satisfaction and quality of care (Basuki & Zakiyah, 2023).

In addition, 87.6% of nurses believe that job satisfaction directly affects the quality of care provided, nurse job satisfaction plays an important role in improving the quality of health care services. (Lee & Lim, 2023). 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.

4.3. Relationship between work environment, and job satisfaction among nurses in selected hospitals in Vietnam

The study results showed that work environment had a strong correlation with job satisfaction (r = .52, p < .001). These findings are consistent with Ablotaibi (2022), who also observed a moderate correlation between work environment and job satisfaction (r = .055, p < .05). Work environment plays an important role in achieving and maintaining job satisfaction among healthcare professionals. The current study results indicate that the type of work environment influences job satisfaction, which means that healthcare managers should consider this aspect of their healthcare organization. This finding is supported by other studies that found a relationship between work environment and employee job satisfaction(Alharbi et al., 2020). This finding is supported by other studies that found a relationship between work environment and employee job satisfaction(Xue et al., 2023). With the current challenges facing healthcare professionals, creating a good work environment is imperative as it increases employee loyalty, efficiency, productivity, and engagement.

Studies have shown that employees who work in an uncomfortable environment are more likely to make mistakes, are more likely to be absent, and are more likely to plan to leave (Lin et al., 2020). It is best to establish a more friendly and outgoing work environment as the work environment has been shown to have a direct impact on nurses' job satisfaction. Furthermore, (Jeffery et al., 2023) emphasized the importance of nursing unit managers in creating a positive work environment that impacts employee satisfaction and retention. In summary, establishing a more friendly and outgoing work environment is essential to improving nurses' job satisfaction and overall well-being. Nurse leaders, empowerment, job engagement, and transformational leadership all play an important role in creating a positive work environment that supports nurses and improves the quality of care provided.

The result also revealed that 24 hours of work shift, more than 20 years of work experiences, and 41-45 hours number of working hours/week had higher levels of job satisfaction. However, previous studies have shown that do not want to disclose and diploma level have greater job satisfaction (Alotaibi, 2022). More experienced healthcare staff had greater job satisfaction. Most likely, the nursing staff already know how to handle situations and processes at work which could lead to higher job satisfaction (Abusamra et al., 2022). 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 (Alotaibi, 2022). Based on the result of the study strategies can be proposed for improving nursing practice: prioritize patient-centered care maintains focusing on the individual needs preferences, and values of patients. Ensure that nursing practice is tailored to meet the unique requirements of each patient. Foster collaboration among healthcare team members, including nurses, physicians, therapists, cooperation relatives, and other professionals. Encourage nurses to base their practice on evidence-based research and best practices. Implement protocols and guidelines that are supported by scientific evidence to ensure high-quality care delivery.

There are Continuous Education and training programe to provide opportunities for nurses to engage in continuous education and training to enhance their skill and knowledge. Support professional development initiatives to ensure that nurses arre equipped to provide high- quality care. Moreover, leadership development need to drive positive change, inspire teams, and promote a culture of excellence. Empower nurse leaders to advocate for nursing practice improvement and support staff development and workforce development.

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 job satisfaction to protect their institution's reputation. Further research is needed to explore other factors influencing job satisfaction that were not included in this study.

5. Conclusions and Recommendations

The study assessed the work environment, and job satisfaction in two public tertiary hospitals in Vietnam, identifying work environment and job satisfaction as significant correlation. While the work environment was rated as good and job satisfaction was only slightly satisfactory. The study highlights the need to measure nursing outcomes as a foundation for improving nursing practice in Vietnam. The finding revealed significant differences in perceptions of job satisfaction in terms of work shift, work experiences, number of working hours/week. 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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