

Job satisfaction of health workers at a Vietnamese University Hospital and its predicted factors: A cross-sectional study

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Abstract

Background and Aims: Job satisfaction of healthcare workers from conventional and university hospitals (or teaching hospitals) might be different due to several factors, for example medical staff required to carry out multiple clinical and teaching tasks simultaneously. Our study aimed to determine how the job satisfaction among healthcare workers in university hospitals is different from those in conventional hospitals.

Methods: A cross-sectional study was conducted by using the validated and contextualized job satisfaction tool for the Vietnamese context to survey 216 healthcare workers at a university hospital in Vietnam from January to March 2020 with online Google forms.

Results: The results indicated low overall job satisfaction (43.1%) in our study university hospital with the score cutoff of 80%. However, healthcare workers still reported high job satisfaction rates in certain aspects, such as personal empathy (70.8%), discipline, and reward (67.6%), co-worker collaboration (65.3%), training and promotion (63%), workplace environment (57.4%), and salary and allowance (44.9%). Subgroup analysis revealed statistically significant differences in job satisfaction ($p < 0.01$) related to age (31 to 40-year-old), and job position with ORs 3.9, and 8.6 respectively.

Conclusion: University hospitals need to improve the healthcare workers' job satisfaction. It is recommended that special human resource strategies should be developed focusing on keeping satisfying older healthcare staff by recognizing their contributions and providing appropriate benefits based on their positions in the hospital.

KEYWORDS

conventional hospital, healthcare worker, job satisfaction, University Hospital, Vietnam

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1 | INTRODUCTION

Achieving high efficiency and productivity in any industry necessitates the job satisfaction of worker.¹ Numerous studies have established a positive correlation between the job satisfaction of healthcare workers and the level of satisfaction among patients with healthcare services.²⁻⁶ Hence, job satisfaction can be defined as the level of contentment, fulfillment, and positive emotions that employees experience in their work environment. As numerous studies have shown that it influences the quality of healthcare services and the level of patient satisfaction. When healthcare workers are satisfied with their job, it can lead to higher efficiency and productivity within the industry.⁷

The issue of job performance in healthcare sector includes several influencing job performance as follow¹: Leadership and Management: Effective leadership and management practices have been found to contribute to better job performance among healthcare professionals. Supportive leaders, clear communication channels, and opportunities for professional development can positively impact performance. Great nursing leaders were seen as people who took calculated risks, had a clear philosophy in their approach to daily tasks, and strongly advocated for nursing while providing support to their staff.^{2,8} Workload and Work Environment: Heavy workload, limited resources, and stressful work environments can negatively affect job performance. Adequate staffing levels, appropriate equipment, and supportive work environments are critical for optimizing performance.^{3,9} Job Satisfaction: As mentioned earlier, job satisfaction plays a crucial role in job performance in healthcare industry. Satisfied healthcare workers are more likely to be motivated, engaged, and committed, leading to better performance.^{4,10} Skills and competencies: The skills and competencies of healthcare professionals are vital for job performance. Continuous professional development, training, and education opportunities are essential to keep healthcare professionals up-to-date and capable of delivering high-quality care.¹¹ Previous studies did not analyze the job motivation of healthcare workers based on the nature of hospitals (conventional vs. teaching). Meanwhile, a university hospital is a facility that melds the provision of hospital services with medical education and research. Workers in these hospital settings perform dual roles as both healthcare providers and medical educators. These workers are subject to high levels of stress and demand, which are amplified by the constant evolution of medical advancements, changes in healthcare delivery systems, and the needs and expectations of patients.^{12,13} In addition to providing healthcare services, these workers responsible for delivering diverse lectures and overseeing clinical sessions. They may also undertake responsibilities related to course direction and curriculum planning.¹⁴ Given the added responsibilities of healthcare providers in university hospitals relative to their counterparts in conventional hospitals, their job satisfaction may differ.

There is a dearth of studies on healthcare workers' job satisfaction hospitals in Vietnam, mainly focused on conventional hospitals or grassroots-level hospital, such as the job satisfaction

score of healthcare workers at grassroots-level hospitals was 3.14 points (out of 5), indicating that 62.8% of them were satisfied with their jobs. Age, gender, and education level were among the factors significantly associated with job satisfaction.¹¹ Therefore, this study sought to examine the job satisfaction of healthcare staff and predicted factors in one university hospital in Vietnam. The findings of this study could serve as empirical evidence to inform policy-makers in enhancing the human resources of these specialized hospitals.

2 | MATERIALS AND METHODS

2.1 | Study design and study site

A cross-sectional study was undertaken between January and March at a single Medical University Hospital located in Vietnam. This hospital comprises a total of 419 beds and employs over 1000 staff members, including professors, associate professors, PhDs, MSc holders, and others. The workforce consists of more than 600 full-time staff, 100 part-time staff, and 300 staff from the Medical University serving as medical experts. The hospital receives approximately 500,000 patient visits annually.

2.2 | Participants and sample size

Healthcare workers working at the university hospital voluntarily agreed to participate in the survey and provided signed electronic consent forms. A total of 216 healthcare workers members were calculated, basing on descriptive sample calculation with confidence level of 95% and specifically targeting those with the lowest job satisfaction rates (15.5%) as reported in prior research studies conducted in Vietnam.¹⁵ The sample size accounted for approximately two-thirds of the total healthcare workers population (300 staff are working as lecturers and healthcare workers), and a convenient sampling method (sending emails to potential participants) was utilized to recruit participants until the necessary number of participants ($n = 216$) was obtained.

2.3 | Variables and measurement tool

In this study, the job satisfaction survey (JSS) tool which had been validated for use in Vietnamese health settings, as demonstrated in a previous study was used. This tool obtained a high Cronbach's α value of 0.96 and set a cut-off of 80% (164 points out of a total of 205 points).¹⁶ The JSS is a validated tool consisting of 41 items that measure seven domains of job satisfaction, namely: (1) workplace environment; (2) co-workers; (3) personal empathy; (4) supervision; (5) salary and allowance; (6) training and promotion; and (7) discipline and reward. Each item is rated on a 5-point Likert-type scale, with responses ranging from 1 (*disagree very much*) to 5 (*agree very*

much).¹⁷ The use of different JSS tools is acceptable in varying conditions/contexts, including cultures, countries, regions, hospitals, and perceptions.

There was a significant decrease in the US governmental public health workforce over a 5-year period. The study revealed that approximately 46% of employees working in state and local public health agencies chose to leave their positions during this period. Notably, a high proportion of younger staff members, specifically around 75% of employees who were 35-year-old or younger or had shorter tenures, decided to resign.¹⁸ Hence, we used the 5 years of working as cutoff for the working experience variable.

2.4 | Data collection

Participants were instructed to complete a self-administered online Google form questionnaire, consisting of two primary sections. The first section encompassed the healthcare workers' characteristics, including age, sex, marital status, education level, specialty, occupation type, working experience, and income. The second section comprised the JSS, which aimed to evaluate the levels of job satisfaction experienced by the participants.

2.5 | Data analysis

Descriptive statistics were employed in this study, including the calculation of means and standard deviations for quantitative data, and frequencies and percentages for qualitative data. To ease data analysis and interpretation regarding the prevalence of job satisfaction, the scores of the JSS and all seven subscales were dichotomized, utilizing a recommended cut-off point whereby a score ranging from 164 to 205 points was classified as "Satisfied."¹⁹

The software SPSS Version 20 was utilized for statistical analysis. The bivariate and multiple logistic regression was applied to identify the associated factors with job satisfaction. χ^2 and OR with 95% confident interval were used to evaluate the strength of association. A $p < 0.05$ was considered statistically significant. In comparison to job satisfaction rates among healthcare workers in conventional hospitals, we conducted *t* tests (mean comparison tests using the hypothesized mean from a previous study).

2.6 | Ethical approval

This study was granted approval by the Ethics Committee for Biomedical Research at Hanoi University of Public Health (approval number: 213/2020/YTCC-HD3). Written informed consent was obtained from all participants. The previous study examining job satisfaction rates among healthcare workers in conventional hospitals was conducted by Quyen and colleagues, who are colleagues at the University of Public Health.

3 | RESULTS

3.1 | Participants' characteristics

Among 216 healthcare workers who participated in our JSS, several key characteristics were observed as follows: The majority of participants were female, accounting for two-thirds (66.2%) of the sample. A higher proportion of the sample was comprised of young staff, with 53.7% being under 30-year-old. A significant percentage of staff were married, namely 79.2%. Healthcare workers who are a main living earner accounted for twice as much as those who are not, 69.4 and 30.6 respectively. The respondents whose monthly income was under \$400 accounted for highest proportion, 42.1%. A similar rate of monthly income of \$400–650 and over \$650 was found. A higher proportion of health staff having working experience under 5 years than those who had working experience over 5 years, 59.3% and 40.7% respectively. Detailed information regarding the participants' characteristics is presented in Table 1.

3.2 | Healthcare workers' job satisfaction

The job satisfaction of healthcare workers was evaluated for each of the seven domains using the score cut-off of 164 points. The domains were then ranked in order from the lowest to the highest proportion, as presented in Figure 1. The domain with the lowest proportion was "Salary

TABLE 1 Healthcare workers' characteristics ($n = 216$).

Characteristics		N	Percentage (%)
Sex	Male	73	33.8
	Female	143	66.2
Age group	<30	116	53.7
	≥30	100	46.3
Marital status	Single	45	20.8
	Married	171	79.2
Department	Surgery	23	10.6
	Internal medicine	139	64.4
	Other specialties	54	25.0
Main earner	No	66	30.6
	Yes	150	69.4
Monthly income (\$)	<400	91	42.1
	400 to ≤650	59	27.3
	>650	66	30.6
Working experience	≤5 years	128	59.3
	>5 years	88	40.7
Profession type	Doctor	26	12.0
	Nurse	144	66.7
	Technician	46	21.3

Healthcare workers' job satisfaction at a Vietnamese University Hospital by 7 domains in percentage (n=216)

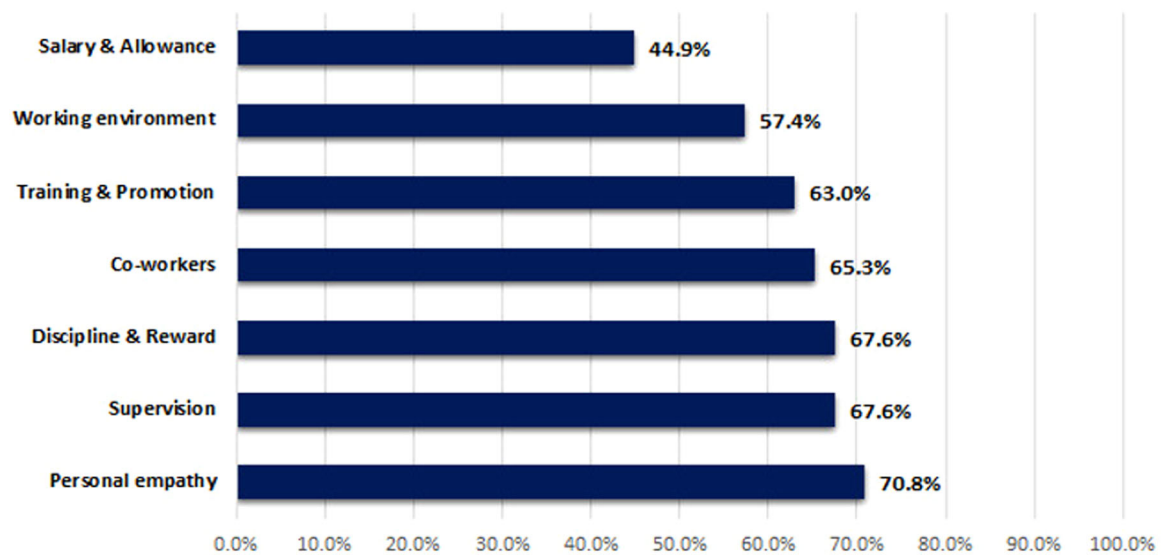


FIGURE 1 Healthcare worker's job satisfaction by seven domains at a Vietnamese University Hospital (n = 216).

and Allowance" (44.9%), while the highest proportion was observed in the "Personal empathy" domain (70.8%). The overall job satisfaction rate was low with 43.1% (93 satisfied/216 participants).

3.3 | Predicted factors on healthcare workers' job satisfaction

The application of the cut-off point (164 points out of a total of 205 points, or 80%) enabled us to divide the participants into two groups for χ^2 and OR calculations, as presented in Table 2. In the binary analysis, there was only association between departments where healthcare workers are working and job satisfaction. However, in the multiple logistic regression analysis, it was found that two factors are significantly associated with job satisfaction such as age group, and department. Specifically, employees with the age group of over 30 years were found to be more likely to report job satisfaction (OR = 3.9, 95% CI: 1.68–9.10). Medical technicians working in nonclinical treatment departments, such as image diagnosis and laboratory were eight, six times more likely satisfied than those who work in the clinical departments such as surgery (OR = 8.6, 95% CI: 2.01–35.81).

3.4 | Seven domains of healthcare workers' job satisfaction comparison between university hospital and conventional hospitals

Our study showed that healthcare workers' job satisfaction in all domains was higher compared to conventional hospitals, as depicted in Figure 2. The *t* test mean comparisons demonstrated that our

study scores were significantly higher ($p < 0.001$) than those reported for conventional hospitals in all domains, including: (1) workplace environment (3.8 vs. 3.3); (2) co-workers (4.0 vs. 3.3); (3) personal empathy (3.9 vs. 3.3); (4) supervision (3.9 vs. 3.0); (5) salary and allowance (3.7 vs. 2.8); (6) training and promotion (3.9 vs. 3.2); and (7) discipline and reward (3.8 vs. 2.7). The overall average score of our cohort result was 3.86 higher than conventional hospitals (3.14).

4 | DISCUSSION

The findings from our study conducted at a university hospital indicate that job satisfaction among healthcare workers is generally low, with only 43.1% of participants achieving a score above the cutoff of 80%. However, it is important to note that despite this overall low satisfaction level, specific aspects of the job still yielded high satisfaction rates. Further analysis of subgroups within the study revealed statistically significant differences in job satisfaction related to age (specifically, the age range of 31 to 40-year-old) and job position. The odds ratios for these differences were calculated as 3.9 and 8.6, respectively, indicating a significant impact of age and job position on job satisfaction.

Most research studies have primarily focused on examining job satisfaction rates among healthcare workers working in general or conventional hospitals, with fewer studies conducted on university hospitals that combine medical education and treatment. Our study showed an overall job satisfaction rate of 43.1% among healthcare workers working in university hospitals, utilizing a high cut-off point of 80%. This may be due to the fact that staff members in university hospitals have additional duties compared to those working in conventional hospitals, leading to different and higher perceptions of

TABLE 2 Exploring healthcare workers' factors related to their job satisfaction ($n = 216$).

Predicted factors	Dis-satisfied ($n = 123$)		Satisfied ($n = 93$)		OR (95% CI)/ χ^2 (p Value)	AOR (95% CI)
	n	%	n	%		
Sex						
Male	39	53.4	34	46.6	0.81 (0.46–1.42)	1
Female	84	58.7	59	41.3		0.68 (0.35–1.32)
Age group						
≤30	73	62.9	43	37.1	1.70 (0.99–2.92)	1
>30	50	50.0	50	50.0		3.9 (1.68–9.10)*
Marital status						
Single	23	51.1	22	48.9	0.74 (0.38–1.44)	1
Married	100	58.5	71	41.5		0.52 (0.22–1.21)
Department						
Surgery	17	73.9	6	26.1	$\chi^2 = 10.9$; $p = 0.04$	1
Internal medicine	85	61.2	54	38.8		1.97 (0.67–5.81)
Other specialty	21	38.9	33	61.1		8.6 (2.04–35.81)*
Main earners						
No	36	54.5	30	45.5	0.87 (0.49–1.56)	1
Yes	87	58.0	63	42.0		1.13 (0.54–2.37)
Monthly income (\$)						
≤400	49	53.8	42	46.2	$\chi^2 = 0.73$; $p = 0.70$	1
400–650	34	57.6	25	42.4		1.30 (0.54–2.37)
>650	40	60.6	26	39.4		1.02 (0.44–2.35)
Working experience						
≤5 years	71	55.5	57	44.5	0.86 (0.50–1.49)	1
>5 years	52	59.1	36	40.9		0.47 (0.20–1.08)
Professional type						
Doctor	10	38.5	16	61.5	$\chi^2 = 4.13$; $p = 0.13$	1
Nurse	86	59.7	58	40.3		0.46 (0.18–1.17)
Technician	27	58.7	19	41.3		0.74 (0.22–2.57)

* $p < 0.01$.

job satisfaction, with prioritized domains being personal empathy (70.8%), discipline and reward (67.6%), co-workers collaboration (65.3%), training and promotion (63%), workplace environment (57.4%), and salary and allowance (44.9%). Our analysis identified three main factors related to job satisfaction rates among healthcare workers working in university hospitals, including young age, job positions, and departments, with job positions typically being linked to specific departments. These findings were statistically significant ($p < 0.01$).

When applying the cut-off point of 80%, the overall job satisfaction rate among healthcare workers in university hospitals was found to be 43.1%, which is lower than the job satisfaction

rate reported in conventional hospitals in Vietnam (62.8%),¹¹ However, our findings indicate that the overall job satisfaction rate among healthcare workers in university hospitals (43.1%) is comparable to that reported in other studies, such as the University of Gondar Referral Hospital in Ethiopia (54%)^{16,19} and one university hospital in Thailand.²⁰ Our survey results also identified certain domains with lower levels of job satisfaction, such as workplace environment (57.4%) and payment (44.9%). These findings are consistent with previous studies on general hospitals conducted in Vietnam,⁵ and Thailand, where reported job satisfaction rates for these domains were 66%, 56%, 61.3%, and 43.6%, respectively.²⁰

Comparison of healthcare workers' job satisfaction scores by 7 domains between a University Hospital and Conventional Hospitals

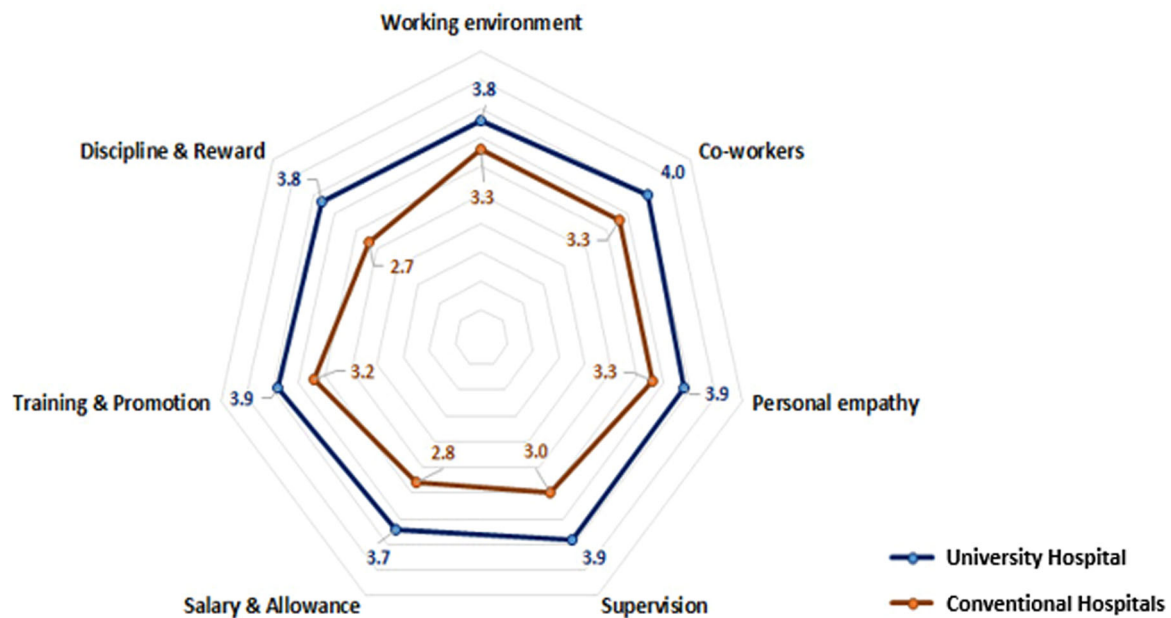


FIGURE 2 Comparison of healthcare workers' job satisfaction scores by seven domains between University Hospital (our study) and conventional hospitals.¹¹

Employee age has been identified as a factor that can impact job satisfaction rates, and the direction of this impact may be positive or negative, depending on the proportion of staff members who report being satisfied or dissatisfied. In our study, employees within the age group of 31–40 years reported a higher proportion of job satisfaction (51.2% vs. 48.8%). This age-related factor has also been reported in other studies, where it is believed that younger staff members may have had less time to gain experience in their work environments and job opportunities outside of work. As staff members gain more seniority and job experience over time, they may become less satisfied with their current positions and may desire higher-level positions or better job opportunities.¹⁹ Similar to our findings, other studies have reported that employees within the age group of 41–50 years showed an increased dissatisfaction rate, with a percentage increase from 48.8% to 62.5% and OR = 3.9 ($p < 0.01$).

In contrast to other studies, our findings suggest that education and qualification levels are not associated with job satisfaction rates among healthcare workers in university hospitals. This may be attributed to the fact that a high percentage (87.9%) of our study participants had graduated from college or held doctoral degrees, which may be a typical characteristic of healthcare workers working in university hospitals that offer high-quality services and new, modern therapies. In contrast, in conventional hospitals, education attainment has been positively associated with job satisfaction rates among healthcare staff. This is likely due to the higher position and income opportunities that come with higher education levels, leading to increased job satisfaction among healthcare staff.^{11,21,22}

In hospitals, doctors and nurses are the primary staff members who have daily contact with patients and often have more stressful work compared to other staff members, such as medical technicians working in subclinical departments like Image diagnosis and Laboratories. In our study, we found that the factor of nonpatient contact is associated with higher job satisfaction rates among employees. Specifically, medical technicians working in nonclinical departments reported a job satisfaction rate of 61.1%, with high job satisfaction rates also reported in image diagnosis (68.2%) and laboratories (65.2%) with OR = 8.6 ($p < 0.01$). Unlike other studies that primarily focus on the job satisfaction of doctors and/or nurses, our study highlights the importance of considering the job satisfaction rates of other healthcare staff members as well. In the future, efforts should be made to balance workload between clinical and teaching tasks or assign more normal clinician staff (not in charge of teaching tasks) to increase job satisfaction rates, particularly since the current job satisfaction rates among doctors (26.1%) and nurses (38.8%) are very low.

To investigate the differences in job satisfaction rates between healthcare workers working in university hospitals and those in general or conventional hospitals, we compared the actual scores without using any cut-off points. Our analysis revealed that employees in our study reported higher scores in all domains compared to those in conventional hospitals, with statistically significant differences ($p < 0.001$).¹¹ Our study identified a radar-shaped pattern in job satisfaction scores, which was similar to previous studies but wider and more balanced across the seven domains. This may be attributed to the fact that healthcare workers working in university hospitals are highly equipped and supported across all seven domains of job satisfaction, which is necessary to provide the

highest quality services. This is especially important given that university hospitals are considered to be first-level hospitals in Vietnam's healthcare system. To maintain job motivation for healthcare workers as a lecturer and healthcare professional at teaching hospitals can be achieved by having a clear purpose and finding fulfillment in delivering excellent education and patient care. To enhance their job satisfaction by having opportunities for professional growth and development, receiving recognition and rewards for exceptional performance, and working in a supportive environment. Collaborating with colleagues and students provides a sense of community and belonging, which further fuels the motivation to succeed in the role of a lecturer.

This study has several notable strengths, including the assessment of job satisfaction rates among healthcare workers in university hospitals, which are a limited number of hospital models in Vietnam. Additionally, the JJS tool applied in our study was validated and contextualized for use in Vietnamese hospitals. However, this study also has several limitations. First, the lack of similar studies conducted on university hospitals in Vietnam limits the accuracy of our comparisons. Second, some in-depth interviews should be done for further explanation the job satisfaction factors that the tool may not convey all.

5 | CONCLUSION

University hospitals should prioritize enhancing the job satisfaction of healthcare workers, and the recommended approach involves the development of specific human resource strategies aimed at fostering job satisfaction among senior healthcare staff. This could be achieved through recognition of their valuable contributions and provision of suitable benefits corresponding to their positions within the university hospitals.

AUTHOR CONTRIBUTIONS

Hoang Cao Sa: Resources; writing—review & editing. **Nguyen Thi Thanh Nhiem:** Writing—review & editing. **Bui Thi My Anh:** Methodology; project administration; visualization; writing—review & editing. **Nguyen Duc Thanh:** Conceptualization; data curation; formal analysis; supervision; validation; writing—original draft; writing—review & editing. All authors have read and approved the final version of the manuscript.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

TRANSPARENCY STATEMENT

The lead author Bui Thi My Anh affirms that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned (and, if relevant, registered) have been explained.

DATA AVAILABILITY STATEMENT

The authors confirm that the data supporting the findings of this study are available within the article or its supplementary materials. Assoc. Prof Thanh Nguyen had full access to all of the data in this study and took complete responsibility for the integrity of the data and the accuracy of the data analysis.

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