

## FACTORS RELATED TO THE QUALITY OF WORK LIFE OF NURSING AT THE HOSPITAL

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### ABSTRACT

**Background:** Burnout is a fairly common syndrome among healthcare workers. As the quality of life improves, the requirements for service quality in most sectors are increasing, which leads to invisible pressures that make many workers, especially medical staff, including nurses, prone to burnout syndrome. So is there a correlation between Burnout and the Quality of Work Life (QoWL) of nursing?

**Method:** A cross - sectional descriptive study was conducted on 123 nurses working in departments of Le Van Thinh Hospital, District 4 Hospital, and Tan Phu District Hospital in Ho Chi Minh City. The sample was selected using a convenient sampling method.

**Results:** The study showed that the burnout rate of nurses at District 4 Hospital, Tan Phu Hospital, and Le Van Thinh Hospital was at a low level of 7.3%. Among them, 10.5% of nurses suffered from Emotional Exhaustion (EE); 39.1% of nurses had a Depersonalization (DP); and 13.0% of nurses experienced a decrease in Personal Accomplishment (PA). There is a correlation between quality of work life and burnout in nurses.

**Conclusion:** The rate of burnout in nurses at District 4 Nursing Hospital, Tan Phu Hospital, and Le Van Thinh Hospital is 7.3%, which is relatively low.

**Keywords:** Quality of Work Life, Burnout, Nurses.

### I. INTRODUCTION

Currently, Vietnam is one of the countries facing the challenge of shortage of health resources. Meanwhile, nurses are the most important workforce and account for the largest proportion of the health care system. Nurses are responsible for caring for and providing health care to patients [1]. According to author Horrigan et al report nursing health levels and quality of work life have an impact on the quality of patient care [2]. In addition, studies highlight that nurses are facing the problem of burnout, and the level of burnout in nurses is reported to be quite high in healthcare services because of the stressful working environment over long period work hours [3, 4]. High levels of nursing burnout can be attributed to reasons such as dissatisfaction with the work environment, high workload, limited growth opportunities, and lack of managerial support while reducing the QoWL of

nurses. The higher the level of burnout in nurses, the lower the quality of health care and reduced patient safety and QoWL of nursing. Therefore, burnout may have been used as a predictor of QoWL of nursing.

Burnout of nurses, if it occurs, will affect more than the QoWL of nurses. The work environment of nursing exposes them to many difficulties related to facing many stressors. Having to work with heavy workloads, caring for the seriously ill, and providing emotional support to patients and loved ones when needed, as well as health care inadequacies, unbalanced allocation of services, and staffing also cause frustration and burnout for nurses. In 2019, the Covid-19 pandemic had a devastating impact on health systems worldwide. The pandemic caused significant changes to the way healthcare workers work. Increased workloads, inadequate protections, risk of transmission, physical pressure, isolation, and

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loss of social support have contributed to the risk of deteriorating mental health among healthcare workers, especially nurses [5]. This also happens for nurses at Grade II general hospitals such as Le Van Thinh Hospital, District 4 Hospital, and Tan Phu District Hospital. High demands and work environment issues can cause burnout and increase nursing turnover. Therefore, it shows the importance of preventing burnout syndrome to promote QoWL, improve the quality of care, and improve the quality of hospitals. That is why the study was conducted to determine the association between burnout factors and QoWL of nurses at Le Van Thinh Hospital, District 4 Hospital, and Tan Phu District Hospital in Ho Chi Minh City.

### II. MATERIALS AND METHODS

From January 2023 to June 2023, a descriptive cross-sectional study was conducted on nurses who were working at the faculties of Le Van Thinh Hospital, District 4 Hospital, and Tan Phu District Hospital in Ho Chi Minh City.

Data collection tool: Burnout scale

The Maslach Burnout Inventory (MBI) toolkit is a scale that measures the level of burnout among healthcare workers [6]. The MBI Toolkit examines correlations in three aspects: Emotional exhaustion (EE): Measure emotional stress and work fatigue. Depersonalization (DP): Measure the degree of unprovoked response to individuals receiving that person's services, care, or guidance. Reduced personal performance (PA): Assess your sense of competence.

The MBI scale has a Cronbach alpha confidence coefficient of 3 aspects of 0.837, respectively; 0.869 and 0.881, verifying the reliability between two assessments with high correlation ( $p < 0.001$ ) [7].

Criteria for selection: The nurse agreed to participate in the study and has officially signed

a contract to work at the faculties of Le Van Thinh Hospital, District 4 Hospital, and Tan Phu District Hospital in Ho Chi Minh City at the time of the study.

Exclusion criteria: The nurse was absent during the study period due to being professionally reprimanded or suspended from work. Chief nursing

Sample size: Apply the formula to calculate sample size to estimate a mean:

$$n \geq \left( \frac{Z_{1-\alpha/2}\sigma}{d} \right)^2$$

With: n: minimum sample size. Z: normal distribution value, with 95% confidence = 1.96;  $\alpha$ : probability of type 1 error ( $\alpha = 0.05$ );  $\sigma$ : standard deviation of the variable to be estimated,  $\sigma = 0.51$  (Based on the research results of Nguyen Thi Thu Thuy et al (2019) [8]. After removing invalid samples, the study obtained 123 samples.

The data were cleaned and entered using Epidata 3.1 software. They were then analyzed using SPSS data analysis software version 26.0 to statistically describe aspects of burnout and find correlations between them and QoWL.

The study was carried out after being approved by the Medical Ethics Council of Ho Chi Minh City University of Medicine and Pharmacy (decision No.1083/HDDĐ-DHYD) and the consent of the Board of Directors of Le Van Thinh Hospital, District 4 Hospital and Tan Phu District Hospital in Ho Chi Minh City. In addition, the study respects the Nursing's voluntary participation in research, does not interfere, does not pose a risk to research participants, and ensures compliance with ethical regulations in biomedical research, all information provided by the Nursing will be kept confidential and only for scientific research purposes.

### III. RESULT

#### 3.1. Burnout of research subjects

**Table 1:** Results of measuring Burnout of Nurses (n = 123)

Content	Medium score	Difference standard	Min	Max
Emotional exhaustion (EE)	18.56	8.89	7	44
Depersonalization (DP)	12.42	6.40	7	37
Reduced personal performance (PA)	45.80	11.17	8	56

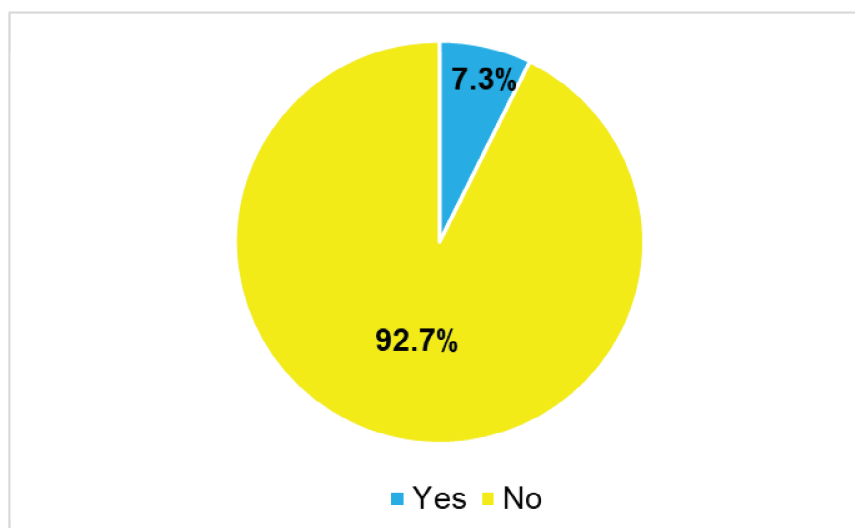
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Our research results on 123 nurses at Le Van Thinh Hospital, District 4 Hospital, and Tan Phu District Hospital in Ho Chi Minh City show that the average burnout score for emotional exhaustion was  $18.56 \pm 8.89$ ; the depersonalization aspect was  $12.42 \pm 6.40$ ; and the aspect of personal achievement reduction was  $45.80 \pm 11.17$ .

**Table 2:** Burnout rate in nurses (n = 123)

Level of nursing burnout	EE	DP	PA
	n (%)	n (%)	n (%)
Low	67 (54.5)	0 (0.0)	95 (77.2)
Medium	43 (35.0)	75 (60.9)	12 (9.8)
High	13 (10.5)	48 (39.1)	16 (13.0)

According to Table 2, in terms of emotional exhaustion: there are 13 nurses with high-level burnout, accounting for 10.5%, and 67 nurses with low-level burnout (54.5%). In terms of depersonalization: 48 nurses (39.1%) have a high level of depersonalization, the rest are at an average level (60.9%). Nursing has a low level of personal achievement (77.2%).



**Figure 1:** Burnout of Nursing

The rate of nurses suffering from occupational burnout at Tan Phu Hospital, Le Van Thinh Hospital, and District 4 Hospital is 7.3 %. Among them, 39.1 % of nurses have the highest proportion of depersonalizations; 13.0 % of nurses have reduced personal performance, and 10.5 % of nurses are mentally exhausted, accounting for the lowest rate.

### 3.2. The relationship between Burnout and Quality of Work Life

**Table 3:** Relationship between Quality of Work Life and Burnout of Nurses (n = 123)

Burnout aspects	QoWL of Nurses	
	Pearson correlation coefficient (r)	p
EE	-0.48	< 0.001
DP	-0.51	< 0.001
PA	0.39	< 0.001

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According to Table 3, aspects of burnout, including mental-emotional exhaustion, depersonalization, and reduced personal performance, were all correlated with nurses' QoWL. In particular, there is a moderate, negative correlation between QoWL and emotional exhaustion and depersonalization, with Pearson correlation coefficients of -0.48 and -0.51, respectively.

A weak, positive correlation was found between occupational QoWL and reduced personal performance, with a Pearson correlation coefficient of 0.39.

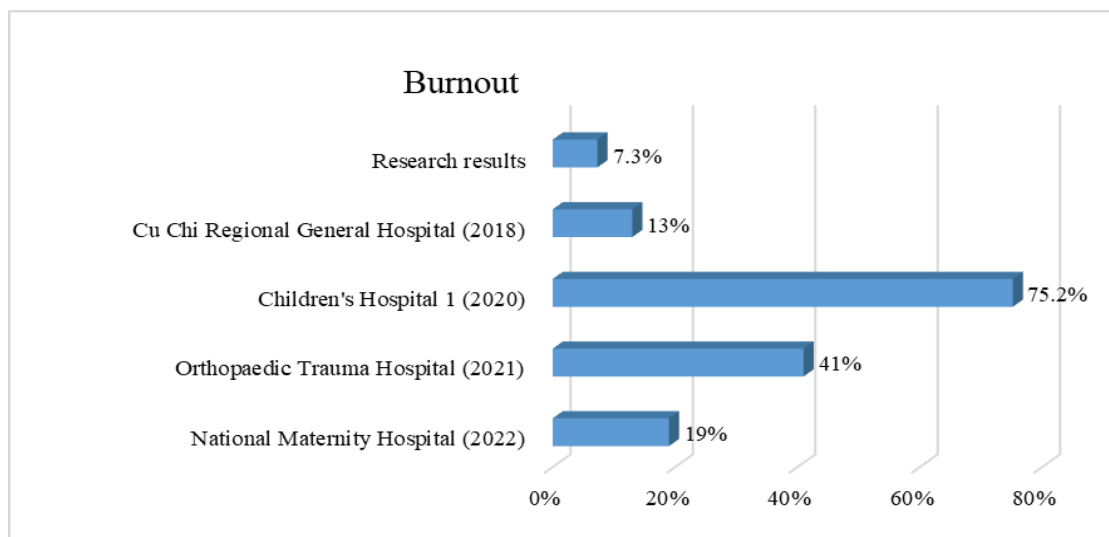
**Table 4:** Comparison of Quality of Work Life scores with Burnout of Nurses (n = 123)

Burnout	QoWL				
	n	Medium score	Standard deviation	95% CI	p
No	114	99.66	10.34	1.031 - 14.951	0.025
Yes	9	91.67	7.04	2.403 - 13.580	

Nurses with burnout had a low average score quality of work life of  $91.67 \pm 7.036$  points (95% CI: 2.403 - 13.580) lower than nurses without burnout with  $99.66 \pm 10.338$  points (95% CI: 1.031 - 14.951), this difference is statistically significant with  $p < 0.05$ .

## IV. DISCUSSION

The burnout of nurses at Le Van Thinh Hospital, Tan Phu Hospital, and District 4 Hospital is expressed through three aspects: emotional exhaustion, depersonalization, and personal accomplishment. Research results recorded that 10.5% of nurses were emotionally exhausted. This result is lower than that of medical staff at Children's Hospital 1 according to research by Le Huu Phuc, with a rate of 72.1% at the level of emotional exhaustion [9]. The depersonalization result in our study was 39.1%, also lower than that of the medical staff at Children's Hospital 1, which was 78.7% [9]. There are 13% of nurses experiencing burnout due to personal accomplishment, a lower rate than nurses at Cu Chi Regional General Hospital with 23.2% of nurses experiencing burnout due to personal accomplishment [10]. It can be seen that Tan Phu District Hospital, Le Van Thinh Hospital, and District 4 Hospital are all district hospitals, so the workload pressure and working speed are somewhat lower than Cu Chi Regional General Hospital or Children's Hospital 1.



**Figure 2:** Comparison of Nursing Burnout rates

The survey shows that the rate of nurses suffering from occupational burnout is 7.3%. This burnout rate is low and lower than most studies in our country

such as the study by Nguyen Tien Hoang at Cu Chi Regional General Hospital in 2018 showed the occupational burnout rate of staff being 15% for

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Doctors and 13% for Nurses [10]. The research by Le Huu Phuc in 2020 at Children's Hospital 1 was 75.2% [9]. The 2021 study at the Orthopaedic Trauma Hospital showed a nurse burnout rate of 41.1% [11]. A 2022 National Maternity Hospital study found the burnout rate of nurses to be 19% [12].

It can be seen that Tan Phu District Hospital, Le Van Thinh Hospital, and District 4 Hospital are all district hospitals, so the workload, pressure, and working speed are somewhat lower than the National Maternity Hospital or Children's Hospital 1. There are the leading hospitals in the South and the North, which are the last, so the workload and occupational pressure are higher, leading to a higher rate of burnout. At the same time, the reason for the very high discrepancy between our study and the two studies at the National Maternity Hospital or the Hospital of Orthopaedic Trauma is that these studies conducted in 2020 and 2021 were the peak of the Covid pandemic, creating a synergistic effect that made the burnout rate of these studies very high.

Our results show that there is a statistically significant correlation on average between quality of work life and each aspect of burnout. The statistically significant correlation between the QoWL and burnout in terms of emotional exhaustion ( $r = -0.48$ ,  $p < 0.001$ ) and depersonalizations ( $r = -0.51$ ,  $p < 0.001$ ) was an inverse correlation, the lower the QoWL score, the higher the burnout score in these aspects (high levels of burnout). The statistically significant correlation between a nurse's QoWL and burnout in terms of reduced personal performance ( $r = 0.39$ ,  $p < 0.001$ ) is positive, the lower the QoWL score, the lower the score on the questions in this aspect ( $\leq 33$  points corresponding to a high degree of burnout). This result is similar to the research of Hoang Le Phuong Anh at Thu Duc District Hospital in 2019 [13]. The report by Li et al shows a correlation between job burnout and employee health, with depersonalizations having a particularly significant impact on nurses' physical and mental health [14]. Different occupational stress factors can lead to various health problems and a decrease in QoWL. During the study, we found that the nurses who participated in the study had a good average sense of QoWL, but each aspect of burnout remained at a certain level. It may be

because the nursing environment doesn't have many opportunities to grow or there isn't much improvement at work.

In addition to the background factors influencing nursing QoWL, our study results also indicate that burnout is associated with QoWL. Nurses with burnout had a lower average QoWL score ( $91.67 \pm 7.04$ ) than nurses without burnout ( $99.66 \pm 10.34$ ), this difference was statistically significant with  $p < 0.05$ . Burnout will impair QoWL, which can be caused by psychological stress and then affect work. This is also consistent compared to many other studies around the world such as the 2021 study by Li et al that indicated that higher levels of burnout were associated with poorer QoWL [14]. Burnout was identified as a risk factor for QoWL, high burnout severely reduced nursing QoWL. Or Wang's research also says that burnout hurts the QoWL of nursing [15]. Domestic research such as one by author Hoang Le Phuong Anh at Thu Duc District Hospital in 2019 found that there was a significant negative relationship between burnout and quality of life.

### **V. CONCLUSION**

The burnout rate of nurses in the study was low, with 7.3% of nurses experiencing burnout. There is a correlation between quality of work life and burnout in nursing. In particular, there was an average inverse correlation between QoWL and "emotional exhaustion" and "depersonalization", with correlation coefficients of -0.48 and -0.51, respectively. There was a medium-level positive correlation between QoWL and the "reduced personal performance" aspect, with a correlation coefficient of 0.39. Results can be used by healthcare managers to implement appropriate initiatives to improve QWL and reduce burnout of nurses.

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