

Burnout Syndrome Associated with Nurses' Quality of Life During the Covid-19 Pandemic

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ABSTRACT

Background: COVID-19 cases that occur in Indonesia are accompanied by high mortality, which leads nurses as one of the frontlines to experience burnout syndrome and have an impact on reducing the quality of life of nurses. This study aimed to determine the relationship between burnout syndrome and the quality of life of nurses during the COVID-19 pandemic. **Methods:** This study was correlational with a cross-sectional approach. The population was 269 nurses working in health services in East Java and was obtained by incidental sampling. The quality of life of nurses was measured by the Short Form Health Survey 36 (SF 36), which consisted of 36 question items, while the level of burnout syndrome was measured by the Maslach Burnout Inventory-Human Service Survey, which consisted of 22 questions. **Results:** All nurses had experienced burnout syndrome in varying degrees. The nurse burnout rate was generally low at 163 (60.6%), and the quality of life of nurses was typically good at 252 (97.3%) and a small percentage at 17 (6.3%). The spearman rho p -value analysis <0.05 showed a significant relationship between burnout syndrome and nurses' quality of life. **Conclusion:** Life balance allows nurses to be able to balance work and can improve the quality of life. Nurses can use a variety of methods to cope with burnout syndrome and improve their quality of life.

Keywords: Burnout Syndrome; Quality of life; Covid-19; Pandemic

INTRODUCTION

The COVID-19 pandemic in Indonesia has put the healthcare system under tremendous pressure. This is due to the rapid demand to adapt to health needs during the COVID-19 pandemic (Sayilan, Kulakac, & Uzun, 2021; FKUI, 2020). The number of death cases increased along with the increase in cases, sometimes reaching more than 1,000 deaths in a single day. The Ministry of Health reported 40,427 new cases on Monday, July 12, 2021. The total number of COVID-19 cases in Indonesia has reached 2.567 million people. The number of active cases or patients requiring treatment has reached 380,797 people. This has caused concern in hospitals as they are overwhelmed with the surging COVID-19 patients. The Bed Occupancy Rate (BOR) in hospitals has reached 77%. This number was a record compared to the previous edition, which was still in the range of 30 thousand every day (Hastuti, 2021). The perceived threat of COVID-19 has helped in explaining the level of burnout among nurses and moderating the relationship between social support and the workplace. Excess workload, limited infrastructure, human resources, workplace social support, inefficient use, personal protective equipment, uncertain diagnosis criteria, and psychological stress have significantly explained burnout (Manzano García & Ayala Calvo, 2021; Thambidurai *et al.*, 2019; WHO, 2020). Nurses must be willing to leave family and friends to serve others at the expense of the most precious possessions of time and life. A study suggested that ICU nurses experience significant burnout, with a high prevalence of psychosomatic symptoms closely associated with it, highlighting the need for enhancing the work environment through increased support and empowerment of the nursing staff (Ali & Eissa 2018). A few fell because they were infected with COVID-19, and many died. The number of nurses is dwindling, and the minimal number requires nurses to stand by all day to carry out humanitarian duty calls. In addition, complete personal protective equipment (hazmat) is used while on duty. To tackle the psychological symptoms experienced by nurses, it is essential to assess and measure the extent of burnout, depression, and anxiety while also examining possible factors that contribute to these issues (Li *et al.*, 2023).

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Burnout is more than stress due to excessive fatigue, cynicism, and low self-efficacy as a result of chronic work tension. Burnout is formed due to the imbalance of job demands with individual abilities derived from the inability to use effective coping against existing stressors (Rosa *et al.*, 2020; Manzano-García & Ayala-Calvo, 2021). The COVID-19 pandemic has exacerbated the reality of the work environment, which can cause nurse burnout rates to grow exponentially as hospitals ask nurses to work under potentially extreme conditions. Wan *et al.* (2020) found that nurses in Wuhan experienced mild and moderate burnout. According to Bruyneel (2021), two-thirds of ICU nurses are at risk of burnout related to working conditions during the first wave. Jalili *et al.* (2021) also mentioned that 326 people (53%) experienced moderate burnout levels in the subdimension of emotional fatigue, and burnout was low in the depersonalization aspect (Sayilan *et al.*, 2020).

The results of the burnout survey showed that one-third of paramedic staff had high levels of emotional exhaustion, more than two-fifths had low achievement rates, and one-third had high levels of depersonalization (Yacout, Mohamed, & El Sherbini, 2021). Sham *et al.* (2017) stated that nurses have experienced high burnout, with 83.3% of respondents experiencing depersonalization and 42.5% experiencing reduced personal achievement. FKUI (2020) stated that 83% of health workers have experienced moderate and severe burnout syndrome. About 41% of health workers have experienced moderate and severe emotional fatigue, 22% have lost empathy, and 52% lack confidence. Burnout does not occur in the short term. Still, it gradually increases, creating long-term problems such as feelings of hopelessness, distress, and failure at work, and it also impacts the quality of human life (Bakker *et al.*, 2000).

The quality of human life is an individual's perception of their position in the cultural context and value system relating to goals, expectations, standards, and attention. It is a broad concept influenced complexly by a person's physical health, psychological state, level of independence, social relationships, and personal beliefs (WHO, 1997). Until now, research on the quality of life measurement that has been carried out has focused more on measuring the quality of life of high-risk groups of people, such as the elderly, patients with pacemakers, cancer patients, and other patients who are in emergency positions. Without realizing it, health workers are among the high-risk groups of people, especially nurses, who are currently one of the most numerous health workers and are at the forefront of dealing with COVID-19. Based on this description, researchers observed burnout syndrome and the quality of life of nurses during the COVID-19 pandemic.

METHODOLOGY

Research Design

This study used a cross-sectional approach to determine the relationship between burnout syndrome and nurses' quality of life.

Population, Sampling, and Sample

All nurses working in health services in East Java, Indonesia, the sampling type used was accidental sampling. Researchers determined samples based on chance; they could take samples of anyone they met without prior planning to be given questionnaires, so 269 respondents were obtained.

Data Collection

Questionnaires were distributed through Google Forms to reduce the risk of transmission. The instrument for measuring burnout syndrome using the Maslach Burnout Inventory-Human Service (21) consisted of three elements: physical and emotional fatigue, depersonalization, and decreased personal accomplishment (Maslach & Jackson, 1986). Nurses' quality of life measurements using Short Form Health Survey 36 (SF 36) consisted of physical function, physical limitations, emotional control, energy fatigue, mental health, social functioning, bodily pain, and general health.

Statistical Analysis

Descriptive statistics were used for univariate analysis of respondents' characteristics, the frequency distribution of burnout syndrome, and the quality of life of nurses. Referential statistics (nonparametric) were used, named Spearman's rank correlation coefficient, to test the relationship between burnout syndrome and nurses' quality of life. The significance level was set at 0.05 for the hypothesis.

Informed Consent

Informed consent was done online as a first step that respondents must approve before completing the questionnaire. All respondents were informed that their participation was voluntary, and confidentiality and anonymity were guaranteed.

Ethical Consideration

The ethical approval for this study was taken from Bangil General Hospital on 13th January, 2022 with reference number 445.1/003/424.072.01/2022.

RESULTS

Table 1: Characteristics of Respondents by Gender, Marital Status, and Level of Education (N=269)

Variable		Frequency	Percentage
		n	%
Gender	Male	73	27.1
	Female	196	72.9
	Total	269	100.0
Marital Status	Not married yet	53	19.7
	Married	213	79.2
	Widow/widower	3	1.1
	Total	269	100.0
Level of Education	Nursing diploma	137	50.9
	Bachelor of Nursing	128	47.6
	Masters	4	1.5
	Total	269	100.0

Table 1 showed that most of the respondents were female, with 196 respondents (72.9%). Nurses were mostly married, with 213 respondents (79.2%), and nurses with diploma level education were 137 respondents (50.9%).

Table 2: Characteristics of Respondents by Age and Length of Working (N=269)

Variable	Mean	Standard Deviation	Min-Maks
Age	34.3	7.506	21-57
Length of Working	8.03	1.176	4-15

**Normal distribution data (p>0.05)*

Table 2 showed that the mean age is 34.3 years, with the youngest being 21 years and the oldest aged 57 years. The mean working time of the respondent is 8 hours, the minimum working time is 4 hours and a maximum working time of 15 hours.

Table 3: Burnout Syndrome (N=269)

Variable Burnout Syndrome	Frequency									
	Low		Moderate		Fair		High		Total	
	n	%	n	%	n	%	n	%	n	%
a. Physical and Emotional Exhaustion	120	44.6	91	33.8	58	21.6	0	0%	269	100%
b. Depersonalization	200	74.3	61	22.7	8	3.0	0	0%	269	100%
c. Decreased Personal Accomplishment	198	73.6	64	23.8	7	2.6	0	0%	269	100%

Table 3 showed that nurses who experienced burnout syndrome suffer with depersonalization and decreased personal accomplishment in the low category with decreased balanced percentages of 74.3% and 73.6%.

Table 4: Quality of Life (N=269)

Variable Quality of Life	Frequency					
	Bad		Good		Total	
	n	%	n	%	n	%
a. Physical Function	7	2.6	262	97.4	269	100%
b. Physical Limitations	39	14.5	230	85.5	269	100%
c. Bodily Pain	40	14.9	229	85.1	269	100%
d. General Health	35	13.0	234	87.0	269	100%
e. Vitality	34	12.6	235	87.4	269	100%
f. Social Function	24	8.9	245	91.1	269	100%
g. Emotional Limitations	68	25.3	201	74.7	269	100%
h. Mental Health	46	17.1	223	82.9	269	100%

Table 4 showed that the quality of life of nurses is generally in the good category especially in the aspect of physical function 97.4%, but in the aspect of emotional limitations the bad category has the highest percentage of 25.3%.

Table 5: Relationship of Burnout Syndrome and Nurse Quality of Life

Burnout Syndrome	Quality of Life				Total		p-value
	Bad		Good		n	%	
	n	%	n	%			
a. Low	3	1.1	117	43.4	120	55.5	0.000
b. Moderate	2	0.7	89	33	91	66.3	
c. Fair	12	4.5	46	17	58	78.5	
Total	17		252		269		

**Correlation is significant at the 0.01 level (2-tailed)

The analysis showed that there was a relationship between burnout syndrome and the quality of life of nurses.

DISCUSSION

The results showed that all nurses experienced burnout syndrome during the COVID-19 pandemic, but at varying rates. The COVID-19 pandemic caused a sudden surge in inpatient admissions in hospitals as a consequence of an increase in workload. The safety of health workers in hospitals is a significant concern. Exposed to several hours of work per day with infected patients, nurses are at risk of experiencing some problems that lead to physical and psychological impairment (Bellanti *et al.*, 2021). Burnout results from long-term exposure to job demands and stress, including physical, mental, and emotional syndromes that include pessimism about oneself and work, decreased desire to do work, and increased turnover (Canu, 2021).

Nurses with less understanding, work experience, and confidence in caring for COVID-19 patients experience burnout more often. An increase in workload, a decrease in self-confidence in self-protection, and a decrease in work safety when treating patients are associated with an increase in fatigue (Galani, 2021). The high incidence of burnout among nurses is recognized as a threat to nurses, patients, and hospitals. Burnout is associated with decreased mental and physical health of healthcare workers, lower quality of care, threats to patient safety, low patient satisfaction, reduced productivity, high turnovers, and increased healthcare costs (Zare *et al.*, 2021). In the domain of physical and emotional exhaustion, nurse burnout rates were low: 120 (44.6%), moderate: 91 (33.8%), and fair: 58 (21.6%). Emotional exhaustion is the side that expresses the physical and emotional fatigue experienced as the basis and start of burnout syndrome. Emotional burnout is mostly related to work stress. The result of emotional exhaustion is unresponsiveness to the people they serve. Also, his work feels like torture because he thinks he cannot bear the following days and always feels tense.

Emotional exhaustion is characterized by prolonged physical, mental, and emotional fatigue. When workers feel fatigued, they tend to be emotionally and physically overextended. They cannot solve problems, feel tired despite having enough rest, and lack the energy to do activities (Leiter, Bakker, & Maslach, 2014).

The depersonalization domains were at a low level of 200 (74.3%), medium at 61 (22.7%), and quiet at 8 (3%). Depersonalization is an attitude that shows harsh or rude behavior, negative behavior, and indifference to others. Some people exhibit behaviors such as losing motivation and enthusiasm due to getting further away from themselves and their work, being indifferent to the people served, and showing negative and hostile reactions. In the domain of low self-achievement (personal accomplishment), most were at a low level of 198 (73.6), medium 64 (23.8%), and moderately 7 (2.6%). Self-achievement becomes a dimension of self-evaluation in burnout syndrome. A person tends to evaluate themselves negatively and think they are not making progress. Poor self-evaluation results also indicate decreased self-achievement, low interpersonal relationships, a loss of enthusiasm, reduced productivity, and a lack of adaptability. The decrease in self-achievement is also characterized by helplessness, feeling that all the tasks given are heavy. When nurses think ineffectively, they tend to feel inadequate. Every job feels difficult and unworkable, and self-confidence is lacking (Aydin Sayilan, Kulakaç, & Uzun, 2014).

Burnout syndrome is closely related to hospital working conditions, but personal factors influence burnout. Previous research has shown that demographic factors such as age, gender, having children, and marriage are determinants of burnout (Zare *et al.*, 2021). The study's results averaged the age of nurses at 34.3 years. They were in the age category of young adults. Age is related to the level of maturity of individuals. Workers more youthful than 30 years old will experience burnout at a higher rate than workers older than 30 years old. Naz *et al.* (2016) found that older nurses experience higher fatigue and stress than younger, unmarried nurses. Likewise, with gender, most female respondents were 196 (72.9%). A woman will experience a higher level of burnout than a man, and women often feel emotional exhaustion. According to Matsuo *et al.* (2021), 149 (22.6%) of 672 healthcare workers met the overall burnout criteria, which was more prevalent in women.

The marital status of respondents was mostly married at 213 (79.2%); a married person will experience burnout more easily. According to Alotni and Elgazzar (2020), married nurses have higher rates of burnout; marital status factors are associated with insight into social support; they may feel less emotional, care more about patients, and feel more satisfied with their profession. The COVID-19 pandemic had a significant influence on the work of nursing professionals in intensive care units (ICUs) (Meneguín *et al.*, 2023). In the education level data, most nursing diplomas were obtained, as many as 137 (50.9%). Education states that the higher the level of education, the higher the level of burnout compared to workers with lower education. An effective management system can help improve positive attitudes and human relationships. Therefore, nursing managers must plan strategies to reduce burnout syndrome and increase resilience (Rivas *et al.*, 2021). The delivery of COVID-19-related information and educational interventions on personal protective equipment and motivation in the workplace is necessary to reduce the mental burden. Confidence in using personal protective equipment and reduced fear of getting infected can be considered factors that can prevent burnout (Matsuo *et al.*, 2021).

The results showed that the quality of life of nurses during the COVID-19 pandemic after the second wave was generally good, and a small part was bad. The health-related quality of life scale's physical and mental health components were used as key outcomes in the study. Individuals with strong beliefs about their abilities can actively solve problems and adapt better to complex situations. A person with this ability reacts positively to stress, uses resources better, and can more calmly accept the consequences of problems (Penacoba *et al.*, 2021).

Age is one factor affecting the quality of life (Inocian *et al.*, 2021). The study's results averaged the nurses' age in the age category of young adults. That younger age was a significant factor in the emotional exhaustion and depersonalization of nurses, but they are more responsible for the consequences of their actions. Individuals in the adult age group are more active, have broader coping strategies, and can see problems from various perspectives (Ahmad *et al.*, 2017; Galaiy & Kinross, 2020). Suryavanshi *et al.* (2020) found that 87% of health workers who provide COVID-19 care directly, with 43% treating >10 patients per day, obtained a low quality of life (89.45%). Moderate to severe depression and anxiety are associated with an

increased risk of low quality of life. Health workers may experience social isolation, stigma, and fear, which contribute to a decrease in quality of life. This condition challenges nursing managers to pay more attention to work schedules, arrangements for health workers, workload, and decreased quality of life (Suwandi *et al.*, 2021). Improving communication between fellow health workers and support through the completeness of adequate facilities and infrastructure can be a concern in nursing services.

Burnout syndrome correlates with the quality of life of nurses during the COVID-19 pandemic. In line with Widayati (2020) and Rebeiro *et al.* (2021), there is a moderate relationship between QNWL and the incidence of burnout syndrome. Low burnout rates can improve a nurse's quality of life. Burnout, as a physical and mental syndrome that results in physical fatigue and emotional exhaustion, hurts the work and lives of others. Poor quality of life is strongly associated with decreased performance, burnout, and early retirement. Work-life balance provides an opportunity for nurses to be able to balance work and commitment in life. The study was conducted in 12 European countries, with workload influencing the nurse's practice environment and burnout. Stressful situations negatively affect the quality of life of care nurses. The three MBI factors and the four WHOQOL-BREF factors are significantly negatively correlated, indicating that high burnout leads to poor quality of life (Naz *et al.*, 2016).

A nursing manager can manage burnout through psychological empowerment, and nurses can use a variety of methods of coping with burnout syndrome and improving quality of life. Nurses will have the skills of developing their own individual resources, which have contributed to the development of the nurse's social competence to build emotional bonds with others, respect for dignity and empathy with patients, and effective communication between colleagues (Kupcewicz, 2020; Permarupan *et al.*, 2020). Relaxation, work environment improvement, and social media's role are important. Practising meditation or yoga and working on hobbies (for example, reading, watching movies, and listening to music) can reduce stress. Proper training in COVID-19 management, adequate isolation wards, adequate rest and good nutrition, and sufficient supplies of personal protective equipment Likewise, the role of the media can help build awareness by providing correct information (Suryavanshi *et al.*, 2020). Areas of improvement in the quality of life of clinical nurses can prevent burnout and increase positive feelings toward working with patients infected with COVID-19, as further engagement can lead to trauma and fear and can affect nurses' ability to provide good care. In addition, it is responsible for meeting the needs and expectations of nurses (Bit-lian *et al.*, 2022). Prospective intervention strategies can improve control over predictors that directly influence the quality of life (El-Soud *et al.*, 2020). Strategies such as resistance training and Mindfulness-Based Stress Reduction (MBSR) can be used as interventions in coping with stress that may be beneficial for nurses to adjust to job roles and responsibilities. Nurses can use religious beliefs as a coping strategy. Early detection of nurse saturation levels can avoid burnout syndrome in the long term (Sham *et al.*, 2017; Munif *et al.*, 2020).

CONCLUSION

Burnout syndrome was correlated with nurses' quality of life during the COVID-19 pandemic. Low burnout rates can improve a nurse's quality of life, and vice versa. Improvement in the nurse's quality of life can be brought about by preventing fatigue and increasing the nurse's positive feelings. Life balance allows nurses to be able to balance work, which can improve the quality of life.

Conflict of Interest

The author reported no conflict of interest in this research.

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