

Revealing Indonesian healthcare professionals' well-being in public hospital setting: a quantitative study

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Abstract. Mental health of healthcare providers is a growing public health issue that affects the quality of care. Empirical studies suggest that the well-being of healthcare workers has an adverse impact on patient safety, leading to increased rates of medical errors and hospital-acquired infections. The primary purpose of this study was to measure the well-being scale of healthcare professionals in an Indonesian public hospital and to investigate whether there are differences in well-being levels across demographic characteristics. This cross-sectional study was conducted between December 2023 and April 2024, involving 167 employees from a public hospital in Central Sulawesi Province. Data were collected through a self-administered survey and analyzed using Jamovi. The study found that well-being levels were high across all dimensions. However, a significant number of respondents reported low ratings in the life well-being dimension. In examining the influence of demographic characteristics on the well-being of healthcare professionals, the study revealed that age, gender, years of experience, educational level, and employment status had no significant effect. However, it was found that healthcare professionals with higher educational qualifications tend to score lower on the life well-being scale. This result suggests a complex interplay between education and perceived quality of life within the context of healthcare work environments, warranting further investigation.

1. Introduction

In recent years, the mental health needs of healthcare providers have become a significant public health concern and a threat to the quality of care delivery [1]. Previous studies have found that the well-being and burnout of healthcare workers may impact the quality and safety of patient care, including an increase in medical errors and hospital-acquired infections among patients [2], [3]. Sixteen out of the 27 studies that measured well-being found a significant correlation between poor well-being and worse patient safety [4], indicating an essential role for staff well-being. Hall et al. (2016) distinguish burnout from well-being, defining burnout as a unique concept initially developed among healthcare workers, characterized as a "state of vital exhaustion." In contrast, well-being is regarded as stable

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when an individual's psychological, social, and physical resources are sufficient to meet various psychological, social, or physical challenges [5].

Hospitals are often perceived as labor-intensive and inherently stressful environments [5]. Additionally, the demanding nature of the medical profession can have a negative impact on the well-being and psychological health of workers. Healthcare professionals encounter multiple stress factors in their work, which can negatively impact their physical, mental, and emotional well-being [6],[7]. Several factors contribute to increased stress among healthcare workers, including heavy workloads, long shifts, a fast-paced environment, lack of physical and psychological safety, the chronic nature of patient care, moral conflicts, concerns about job security, workplace bullying, and insufficient social support. They are particularly vulnerable to stress and burnout due to the pressures of meeting customer demands and ensuring patient safety [8]. Therefore, it is essential to identify and address these work-related risk factors to protect the mental health and well-being of healthcare professionals.

Over the past few years, the importance of employee well-being has become increasingly evident in the survival and development of organizations worldwide, particularly in organizational behavior and related disciplines [9]. The COVID-19 pandemic is likely to exacerbate these issues for healthcare workers worldwide [1]. This consequence is due to the current turbulent conditions, which have led managers and academics to recognize the significance of designing workplaces that prioritize safety and promote Employee Well-Being [10]. Thus, it is vital for healthcare organizations, including their employees, to prioritize health and well-being, as they play a crucial role in the survival and growth of organizations, especially during turbulent times.

The World Health Organization estimates that a shortfall of 18 million health workers will occur by 2030, primarily in low- and lower-middle-income countries [11]. However, nations at all levels of socioeconomic development face challenges regarding the education, employment, deployment, retention, and performance of their healthcare workforce [1]. In recent years, the Indonesian healthcare system has undergone significant transformations, resulting in the emergence of new demands and challenges for healthcare professionals. Furthermore, the exacerbation of these challenges is attributed to multiple crises, including the COVID-19 pandemic and various natural disasters that have impacted several regions.

Indonesia is highly vulnerable to disasters, facing both natural and non-natural calamities. Natural disasters such as earthquakes, tsunamis, and volcanic eruptions, along with non-natural disasters like pandemics, have frequently affected the country. In these crises, health workers play a vital role on the front lines, delivering emergency services, managing surges in patient numbers, and maintaining the sustainability of the public health system. However, the physical and psychological challenges they face often lead to burnout, fatigue, and a decline in performance. While there is a growing concern about the well-being of healthcare professionals internationally, a gap remains in the literature examining the well-being of Indonesian healthcare professionals in public hospital settings.

The primary purpose of this study was to measure the well-being of healthcare professionals in Indonesian public hospitals in the Central Sulawesi Province. Central Sulawesi is one of the provinces with a high rate of mental health problems. Coupled with the fact that the region is prone to natural disasters, this location is a fascinating subject for further study. An additional objective was to explore whether there are differences between employees' demographic characteristics and their level of well-being. Therefore, the research questions that arise are the following:

1. What is the level of healthcare professionals' well-being in Indonesian public hospitals?
2. Do employees with different demographic characteristics have different levels of well-being?

2. Methods

2.1. Study Design and Setting

This study utilized a quantitative research methodology with a cross-sectional design to assess the well-being of healthcare professionals in Indonesian public hospitals. As a lower-middle-income country in Southeast Asia, Indonesia has the world's fourth-largest population, estimated at 275 million. It exhibits a wide range of socio-economic conditions and health indicators throughout its archipelago. The country operates a decentralized public healthcare system, where provincial or district-level governments have authority over most public hospitals. Research took place at Anuntaloko Regional Hospital in Parigi Moutong Regency, Central Sulawesi. Central Sulawesi is the largest province on the island of Sulawesi, and Parigi Moutong Regency has the highest population within the province. The survey focused on the hospital's inpatient unit, which was selected for its ability to represent the diverse range of healthcare professions within the hospital.

2.2. Participant Sampling and Recruitment

The study's population included all healthcare professionals working in the inpatient unit during the data collection period. The unit consists of approximately 15 physicians, 113 nurses, and 49 support staff. To reduce selection bias, we employed non-probability sampling and established explicit inclusion and exclusion criteria. The inclusion criteria for participation were: (1) being an active employee in the inpatient unit; (2) having at least one year of work experience at the hospital; and (3) being willing to participate and complete the questionnaire. The exclusion criteria were: (1) employees who were on official leave during the data collection period; and (2) individuals who declined to participate or did not complete the questionnaire. Ultimately, out of 167 survey forms returned from participants (resulting in a 94% response rate), 167 were used for data analysis. One form was incomplete, two were excluded because participants were on official leave, and seven participants declined to participate.

2.3. Instrument and Data Collection

Data were collected from December 2023 to April 2024 through a self-administered survey. Questionnaires were distributed directly to the respondents. The questionnaire in this study used the Employee Well-Being Scale by Zheng et al., which comprised three facets of well-being: (1) life well-being; (2) work well-being; (3) psychological well-being. The questionnaire included an additional section on the demographic characteristics of the respondents (5 items). Before filling out the questionnaires, prospective respondents were asked about their willingness and availability to participate. Upon agreement, each participant signed a formal consent form before commencing the survey. All the data collection procedures and protocols used in this study were approved by the Ethics Committee of the Public Health Faculty, Hasanuddin University (Makassar, Indonesia), under number 5781/UN4.14.1/TP.01.02/2023.

2.4. Data Analysis

For the statistical analysis, Jamovi was used. The quality dimensions were calculated as a frequency distribution of the questions that compose each one of them. Normality tests for the three well-being dimensions revealed a statistically significant deviation from

normality. As a result, the independent samples t-test was used to determine statistically significant differences in the well-being scale based on the demographic characteristics.

3. Results and Discussion

3.1. Results

3.1.1. Description of the sample

Regarding the sampling frame, most participants (89%) belonged to the 25-40 age group, 6% to the 45-56 age group, and 5% to the <25 age group. In terms of gender distribution, 87% of the participants were female and 13% were male. Most of the professionals in the survey had job experience between 1 and 5 years (37%), followed by 5–10 years (34%), and the remaining 29% had more than 10 years of experience. Finally, regarding their educational level, most of them (70%) were graduates with a diploma, and as non-civil servants or temporary employees (67%) (**Table 1**).

Table 1. Demographic characteristics of the respondents

Attributes	Distributions	Number	Percentage
Age group	<25	8	5%
	25 – 44	149	89%
	45 - 56	10	6%
Gender	Male	22	13%
	Female	145	87%
Job Experience	1 - 5	62	37%
	5 - 10	57	34%
	>10	48	29%
Education Level	Diploma	117	70%
	Bachelor	43	26%
	Master	7	4%
Employment Status	CS*	55	33%
	Non-CS*	112	67%

*Civil Servant

3.1.2. Assessing the level of well-being

Table 2 represents the well-being scale as reported by survey participants. It is clear from the table that all the subconstructs are dominant in the high category. The subconstructs with the highest scores are those related to evaluation of work well-being (93%) and psychological well-being (92%). However, a significant number of respondents reported low ratings in the life well-being dimension (44%).

Table 2. Level of well-being dimensions

Subconstruct	Category	Frequency	Percentage
Life well-being	High	94	56%
	Low	73	44%
Work well-being	High	155	93%
	Low	12	7%
Psychological well-being	High	154	92%
	Low	13	8%

3.1.3. Impact evaluation of the demographic characteristics on well-being

To analyze the impact of age, gender, job experience, educational level, and employment status on the well-being scale, a statistical analysis using the independent sample t-test was conducted. Based on the independent sample t-test of the demographic factor on well-being dimensions, it was found that the test was not significant (**Table 3**).

Table 3
Impact evaluation of the demographic characteristics on well-being dimensions.

Attributes	Life Well-Being	Work Well-Being	Psychologic al Well-Being	Total Well-Being
	T-test	T-test	T-test	T-test
Age group	p* = 0,263	p* = 0,736	p* = 0,785	p** = 0,690
Gender	p** = 0,345	p** = 0,892	p** = 0,979	p** = 0,672
Job Experience	p* = 0,579	p* = 0,145	p* = 0,797	p** = 0,453
Education Level	p* = 0,054	p* = 0,464	p* = 0,385	p** = 0,200
Employment Status	p** = 0,894	p** = 0,785	p** = 0,894	p** = 0,954

*Kruskal-Wallis **Mann-Whitney U

This result indicates that age, gender, years of experience, educational level, and employment status do not significantly affect the well-being dimensions. However, it was found that the p-value of the life well-being dimension was near the threshold value (p = 0,054). It was indicated that healthcare professionals with higher academic qualifications tend to score lower on the life well-being scale.

3.2. Discussions

Healthcare professionals play a vital role in ensuring high-quality care across various healthcare settings. In the last decades, the concept of well-being among healthcare providers has emerged as an essential approach to maintain quality management. Additionally, the demanding nature of the medical profession could affect the well-being and psychological health of healthcare workers [6],[7]. Therefore, it is critical to identify and address these work-related risk factors to protect the mental health and well-being of healthcare professionals. This study collected surveys from 167 participants in Anuntaloko Regional Hospital, Indonesia. This study aims to measure the well-being of healthcare professionals in Indonesian public hospitals and to investigate whether there are differences in the level of well-being among employees based on their demographic characteristics.

Results obtained in this study indicated that the well-being levels of healthcare professionals at Anuntaloko Regional Hospital were high across all dimensions. However, they reported low ratings, particularly in the life well-being dimension. Life well-being includes personal and family care (reflecting employees' personal emotions) and family members (family life issues). According to Rauf et al. healthcare professionals cite mental health concerns and stress as significant contributors to their poor overall well-being [12]. Nunes et al. discuss how healthcare professionals' well-being is influenced by their professional identity and the organization's culture [13]. Cultural barriers within healthcare settings often lead professionals to prioritize work over their personal lives, despite recognizing that such imbalances adversely affect their well-being. For physicians, extended work hours and occupational stress can reduce their ability to develop and maintain personal relationships. This creates a scenario in which healthcare workers often feel torn between their professional obligations and family responsibilities, leading to increased stress and emotional exhaustion. Medina-Garido et al. support this perspective, highlighting that a lack of reconciliation between work and family life correlates with decreased well-being and increased absenteeism.

Culturally, Indonesian healthcare professionals may also grapple with familial and societal expectations, which can further complicate their mental health status. Although Çeri and Çiçek's research focuses on psychological well-being during the pandemic in Turkey, it underscores that healthcare professionals experience intense emotional strain due to work-related factors, which can resonate with similar challenges faced in Indonesia. Additionally, Mahendradhata et al. note that the pressure on healthcare professionals to perform while also managing familial responsibilities contributes to feelings of being overwhelmed, which in turn leads to diminished life satisfaction, particularly among women [2]. Frank et al. [14] found that women experienced significantly higher levels of conflict between their roles as physicians and parents. According to the sampling frame of this study, most participants (87%) were female, which potentially supports this finding.

Regarding the impact of demographic characteristics on the well-being of healthcare professionals, age, gender, years of experience, educational level, and employment status do not significantly affect the dimensions of well-being. However, it was found that healthcare professionals with higher educational qualifications tend to have a lower score on the life well-being scale. According to Hadayat, higher educational levels can be linked with significant psychological burdens, such as stress and anxiety [15]. The complexity of healthcare roles increases with education, which often leads to heightened emotional labor. This highlights how increased education can correlate with heightened awareness of health threats and responsibilities that contribute to anxiety. Additionally, higher education is often associated with heightened expectations, which can lead to increased stress and a reduction in overall life satisfaction.

While some studies suggest that higher education correlates with increased expectations and stress, leading to lower life satisfaction, other contexts indicate that education can enhance coping skills and resilience. Educational programs focused on mindfulness and emotional management, as supported by Costa et al., show promise in addressing the deficits in well-being experienced by healthcare professionals. This highlights the need for targeted educational strategies to empower professionals effectively. Therefore, this result suggests that further investigation is needed into the relationship between education level and perceived quality of life within the context of healthcare work environments in Indonesia.

This study also had some limitations. The participants in this study were limited to a single area (Central Sulawesi) and cannot represent all healthcare professionals of the public hospital in Indonesia. Therefore, it is recommended that future research expand the sample size and consider multiple units and installations, particularly in private hospitals in Indonesia, for comparison. Additionally, future research could also explore the well-being of non-medical staff and strategies for improving well-being among healthcare providers, tailoring interventions to their unique cultural and professional contexts.

4. Conclusion

A healthcare professional's well-being is crucial for delivering high-quality care and enhancing quality management. The demanding nature of the medical profession can impact their mental health, making it necessary to identify and address work-related risk factors. The study revealed that healthcare professionals at Anuntaloko Regional Hospital reported high overall well-being but struggled with life well-being due to cultural pressures that might have led them to prioritize work over personal life. While demographic factors such as age, gender, job experience, and employment status do not significantly impact their well-being, individuals with higher education often experience lower life well-being, likely due to increased stress and higher expectations. Although education can lead to psychological burdens, it also enhances coping skills. Therefore, targeted educational programs and training are needed to empower healthcare professionals and improve their well-being. Further research is necessary to comprehend the impact of education on the quality of life for healthcare professionals in Indonesia.

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