Assessing Psychological Well-being among Nurses: A Case Study of Pemba Provincial Hospital, Mozambique

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.906000300

Received: 30 May 2025; Accepted: 11 June 2025; Published: 12 July 2025

ABSTRACT

In the last seven years, due to the terrorism situation that is plaguing the province of Cabo Delgado, the provincial hospital of Pemba, being the largest in that province has been very crowded, and nurses are dealing with this phenomenon every day. The nurses are directly involved in this phenomenon with the demanding nature of their work including exposure to trauma, suffering and high levels of stress, which patients bring. The current study aimed to examine psychological well-being among nurses in Pemba Provincial Hospital in Mozambique. The study adopted descriptive research design. The total population of 150 nurses was used as a census sample due to the manageable size. The data was collected using Psychological Well-Being Scale (PWBS) developed by psychologist Ryff (1989). The data was analyzed using descriptive statistics and particularly frequencies and percentages with SPSS version 23. Results indicated that 44.3% (58 nurses**)** reported low psychological well-being**,** suggesting significant emotional distress, reduced life satisfaction, and potential struggles with coping mechanisms. On the other hand, 55.7% (73 nurses) exhibited moderate psychological well-being. The study concluded that the workload for nurses may interfere with their psychological well-being. The study recommends to the hospital administration to come up with strategies such as policy-based, psychological interventions, workload reallocation and professional development to enhance the psychological well-being of nurses.

Keywords: Psychological Well-being, Nurses, Pemba Provincial hospital, Mozambique

INTRODUCTION

Psychological well-being has been conceptualized by Ryff (1995) as consisting of 6 dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. According to Diener (2000), there are two forms of psychological wellbeing, subjective wellbeing and having meaning and purpose in life. In other words, subjective happiness or wellbeing from engaging in enjoyable activities and the perception that our life has meaning and purpose are the two critical components of psychological wellbeing: Subjective feelings of happiness are typically referred to as hedonic wellbeing that consists of two parts: a cognitive part (life satisfaction) and positive affective part (strong positive affect and low affect). The other form of PWB is referred to by the less common term Eudemonic wellbeing. An assessment of certain components of mental health, such as positive affect and self-esteem, is known as psychological well-being. Positive emotions (such as high self-esteem) or negative emotions (such as signs of worry or sadness) are examples of psychological well-being. Psychological wellbeing (PWB) describes the positive mental states of a person such as, happiness or satisfaction. Having a high level of psychological wellbeing can mean that one is happy or extremely satisfied with his/her life (Egunjobi, 2024).

In America, a study on the psychological well-being of nurses in the USA is the “Pulse of the Nation’s Nurses Survey Series: Mental Health and Wellness,” conducted by the American Nurses Foundation (2021) involved 9,572 nurses and aimed to assess the impact of the COVID-19 pandemic on their mental health and wellness. Key findings from the survey indicate that 34% of nurses reported not being emotionally healthy; increased levels of stress, exhaustion, and burnout were prevalent among nurses and the survey also explored issues such

as post-traumatic stress, resiliency, and the stigma around seeking professional mental health support. This study highlights the significant mental health challenges faced by nurses, particularly in the context of the COVID-19 pandemic, and underscores the need for targeted interventions to support their well-being. Due to increase of workload among nurses in Pemba provincial hospital as result of terrorism leading to receiving overwhelming patients, they can easily suffer psychologically.

Lorber and Dobnik (2022) conducted a study on the importance of monitoring the psychological wellbeing and mental health of nursing staff for sustainable management in Slovenia. The study examined the psychological well-being and mental health of nursing staff and determined the workplace factors that affect them. The main findings were that more than half of employees are satisfied or very satisfied with their job and with their leaders' support, but they are often exposed to stress. Quality of work life, work–life balance, and managing stress at the workplace affect the psychological wellbeing and mental health of nursing staff. Management should identify the importance of monitoring and improving workplace factors that can affect the employees. This study can provide a solid foundation for understanding the psychological well-being of nursing staff and highlights the importance of workplace factors. The study was conducted with nurses from Slovenia, however the current study was conducted with nurses in Mozambique to fill the gap.

In a similar study Delgado et al. (2021), found that approximately half of the participants (n = 244, 50.6%) had higher levels of psychological well-being (PWB) in a sample of 17 000 nurses working in mental health in Australia. Mixed methods were used in this study and the Ryff's scale of Psychological Well-being – 18 item (PWB18), was used to measure psychological well-being. In support of these results, Keyes (2002) highlights that psychological well-being contributes to the formation of healthier and more satisfying interpersonal relationships, promoting empathy and effective communication. Individuals with high psychological well-being are more likely to cultivate positive relationships and engage in pro-social behaviors.

Healthcare professionals' and non-healthcare professionals' psychological well-being, depression, and stress scores did not significantly differ, according to Ceri and Cicek's (2020) study conducted in Turkey. Psychological well-being was significantly and negatively correlated with depression and anxiety. The results indicated also that the psychological well-being scores of those who received psychological support due to the pandemic process were low, and their depression and stress scores were high. The psychological well-being, depression and stress levels of the non-healthcare professionals did not differ significantly in terms of any parameters. While psychological well-being and depression levels of doctors, nurses and health technicians were found to be significantly different, their stress scores did not differ significantly. Both depression and psychological well-being levels of doctors were higher than other healthcare professionals. The psychological well-being scores were highest (M = 41.136) in the doctors. While the lowest scores were observed among nurses (M = 38.72). Similarly, while other healthcare professionals (M = 6.11) had the highest depression scores, the lowest depression scores were found among doctors (M = 4.63). The study group consisted of 546 healthcare professionals (female = 313, male = 233) who work in a hospital in Turkey and 445 non-healthcare professionals (female333, male = 112) who were not working in a hospital. The psychological well-being scale developed by Diener et al. (2010) was used. The study was carried out during the COVID-19 pandemic period, including several health professionals. The current study, although it focused only on nurses who work at the Pemba Provincial Hospital, benefited from it as nurses are healthcare professionals who deal with different situations daily, taking into account that the psychological well-being of nurses is essential to guarantee the quality of care and the mental health of professionals.

Moreover, a descriptive statistic revealed that doctors had an average level of psychological well-being in a study carried out by Muntean et al. (2022) to analyze the relationship between emotional stability, psychological well-being and life satisfaction of doctors. This was a cross-sectional study with 280 doctors from Romania during the period of the covid-19 pandemic; where the doctors included in this study were selected from the second line of COVID-19 treatment. To evaluate the subjects, three scales validated in the Romanian population were administered: the DECAS Personality Inventory (DECAS), an Abbreviated Stress Assessment Tool (ASSET) and the Satisfaction with Life Scale (SWLS). The current study employed only the Professional Quality of Life Scale(and Psychological Well-Being Scale.

In African context, a study carried out in Ghana by Opuku and Owusu (2024) aimed to examine the effect of psychological well-being on professional performance among nurses and midwives in rural and urban hospitals in Ghana during COVID-19, having adopted a purely quantitative approach, it used the explanatory research design. Data was collected from 262 nurses and midwives in two selected hospitals in the Central Region of Ghana. Structural Equation Modeling was used to analyze the collected data and the 18-item version of Ryff Psychological Well-being Scale 55 was adapted for measuring psychological well-being in this study. The results reported that levels of psychological well-being and professional performance were high in both hospitals amid the pandemic. The study also showed that although psychological well-being had a significant influence on job performance among nurses and midwives in rural and urban communities, the effect was more significant in urban settlements.

A study on relationship between Psychological Distress and Work Satisfaction on psychological well-being among nurses in Nigeria conducted by Ezaka et al. (2024) examined how psychological distress and job satisfaction influence the psychological well-being of nurses. Participants in the study were 120 nurses in the Federal Teaching Hospital, Abakaliki, Nigeria. Psychological distress was measured using the Kessler Psychological Distress Scale (k10), developed by Kessler (2023), also psychological well-being was measured using the psychological well-being Scale (PWS) developed by Ryff (1995). The results showed that psychological distress had a statistically significant influence on psychological well-being, ($F=25.82$, $df=111$, $p<.01$). This significant influence indicates that the nurses' dominant low levels of psychological distress were influential on their states of psychological well-being.

Another study that also showed low levels of psychological well-being was carried out in Malawi by Lohmann et al. (2019), to contribute to filling the knowledge gap by investigating the levels and factors associated with the psychological well-being of mid-level healthcare professionals in Malawi. The study was based on a cross-sectional sample of 174 health professionals from 33 primary and secondary health facilities in four districts of Malawi. Psychological well-being was measured using the WHO-5 Well-Being Index. Data were analyzed using linear and logistic regression models. The study showed that 25% of respondents had scored poorly psychological well-being. The study was carried out in four districts in Malawi which is one of Mozambique's neighboring countries and the current study was in the Pemba.

A study carried out in Nampula Province in northern Mozambique, by Feliciano et al. (2022) on the impact of COVID-19 on self-reported burnout and health and mental health services in Nampula, Mozambique, aimed to examine the impact of COVID-19 pandemic on self-reported burnout -reported by health professionals, quality of care and perceptions of stigma related to COVID-19 in Mozambique. A cross-sectional quantitative assessment of 170 frontline health workers in Nampula District, Mozambique, including 149 (87.6%) primary care providers and 21 (12.4%) mental health specialists. A 6-hour training was first provided to the seven research assistants to facilitate data collection via REDCap. The research assistants called providers across eight districts (Erati, Nacaroa, Lipo, Rapale, Meconta, Ribaue, Angoche, and Larde) of Nampula Province and inquired about their interest in completing the survey. The survey consisted of 12 items measuring three constructs: (1) the impact of COVID-19 on health and the provision of mental health care; (2) professional burnout; and (3) stigma related to COVID. The results revealed that of the 170 frontline workers, only 10.1% felt that their burnout at work had worsened. Just over half (53%) considered that there had been no change and a third (33.3%) considered that exhaustion had improved. There were no significant differences in feelings of burnout according to gender $x2$ (8, $N = 170$) $= 5.032$, $p = 0.754$, education level $x2$ (9, $N = 170$) $= 9.479$, $p = 0.394$, or training in mental health $x3$ (8, $N = 167$) $= 13{,}140$, $p = 0.107$. Although this study did not provide specific details on the level of psychological well-being of mental health professionals in Nampula province, however, the reported reduction in burnout suggests an improvement in the psychological well-being of these professionals during the period analyzed. This study indicated that, despite the difficulties faced, the reduced workload might have contributed to a more positive psychological state. The objective of the study was to examine psychological well-being among nurses in Pemba Provincial Hospital in Mozambique.

METHODOLOGY

The study adopted a descriptive research design. The design was suitable for the current study because it aimed to examine the psychological well-being among nurses in Pemba Provincial Hospital in Mozambique. The

study was carried out at Pemba Provincial Hospital, in Cabo Delgado, Mozambique. Pemba Provincial Hospital is the largest hospital in the province of Cabo Delgado located in the city of Pemba. In the last seven years, due to the terrorism situation that is plaguing the province of Cabo Delgado, the provincial hospital of Pemba, being the largest in that province, has been very crowded, and nurses are dealing with this phenomenon every day. In addition to the normal environment, there has been a massive influx of injured and dead people and, most of the time, people with trauma. However, nurses are directly involved in this phenomenon with the demanding nature of their work, including exposure to trauma, suffering and high levels of stress, which patients bring. Due to the high empathy that nurses have used in caring for their patients, incarnating, delving into the suffering of their patients causes this phenomenon of compassion fatigue. This phenomenon may cause some mental health problems for the nurses of Pemba Provincial hospital, such as: anxiety, irritability, intolerance, resentfulness but there is limited knowledge and awareness about how the nurses experience compassion fatigue.

The study target population consisted of 150 nurses working in Pemba Provincial Hospital, in Mozambique and they were included as a sample size since the population was small. The study employed 150 questionnaires and 131 were returned giving response rate of 87.33%. According to Mugenda and Mugenda (2012), 50% of the response to the questions is sufficient for data analysis, hence 87.33% was sufficient and, therefore the study achieved a higher response rate beyond the set baseline. The data was collected using Psychological Well-Being Scale (PWBS) developed by psychologist Carol D. Ryff (1989), which is a 18-items Scale that measures six aspects of wellbeing and happiness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance (Ryff, 1989). Responses are measured on a six-point Likert scale, ranging from “strongly disagree” to "strongly agree”. Higher scores indicate greater well-being in each dimension. The PWBS has demonstrated strong construct validity, as it correlates well with other measures of well-being and mental health. Factor analyses have supported the scale's structure, confirming that it effectively captures the six dimensions of psychological well-being (Ryff, 1989). For reliability, the scale has shown high internal consistency, with Cronbach's alpha coefficients typically above 0.80 for the overall scale and its subscales, indicating that the items reliably measure the intended constructs (Ryff, 1989).

The researcher obtained approval documents from the Research Ethics Committee of the Psycho-spiritual Institute of Marist International University College. Subsequently, the researcher again sought approval from the provincial health department in Pemba, in the province of Cabo Delgado. The selected nurses were informed about this study and asked for their consent. Participants were informed and assured that the information provided would be treated with the utmost respect, dignity and confidentiality and that their identity would be hidden at all costs. To ensure the confidentiality of the data collected and the privacy of the participants, the researcher never asked participants to reveal their names at any point in the data collection process. The data was analyzed using descriptive statistics particularly frequencies and percentages.

RESULTS AND DISCUSSION

The current study aimed to examine the psychological well-being among nurses in Pemba Provincial Hospital in Mozambique. The study had a 87% response rate, with 131 participants. Females (64.9%) outnumbered males, and most (76.4%) were aged 18-39, with the largest group being 30-39. Most nurses were single (71.8%), and married nurses had a higher proportion of Degree holders, suggesting a link between education and marriage. The majority (64.9%) had 1-10 years of experience, with fewer in higher brackets due to retirements or career shifts. Catholics were the largest religious group (44.3%), followed by "Other" (36.6%) and Protestants (19.1%). Across all groups, most had 1-10 years of experience, with lower long-term retention.

To examine the psychological well-being among nurses, a descriptive statistic was run and the results are presented in table 1.

Table 1: Psychological well-being of Nurses in Pemba Provincial Hospital

Autonomy

Item	N	Mean	Std. Error	SD	Min	Max	% of Max (7)
I tend to be influenced by people with strong opinions	131	3.51	0.187	2.14	1.00	7.00	50.2%
I have confidence in my own opinions, even if they are different	131	5.10	0.174	2.00	1.00	7.00	72.8%
I judge myself by what I think is important, not by others' values	131	4.73	0.208	2.38	1.00	7.00	67.5%
Total	—	**4.45**	—				**63.2%**

An average score of 4.45 out of 7, or 63.2% of the maximum, indicates a moderate level of psychological well-being on the autonomy domain. Even when their perspectives diverge from others', participants typically exhibit a high level of independent thought and trust in their own judgment. Additionally, they frequently evaluate themselves according to their own principles rather than meeting social norms. The comparatively low resistance to strong opinions score, however, indicates that some people are still vulnerable to societal pressure. Though there is opportunity for improvement in terms of fortifying individual boundaries and autonomy, the group seems to generally maintain a balance between internal convictions and external demands.

According to Ryff's model, participants with a moderate autonomy score (4.45/7; 63.2%) exhibit a fair degree of self-determination, exhibiting independent judgment but also a degree of social pressure susceptibility. This supports nurses' self-guided functioning and is consistent with Madhuchandra and Srimatithi's (2018) findings, which showed that Indian nurses exhibited greater autonomy than doctors. In contrast, Lee et al. (2024) show a varying pattern among Korean nurses, indicating that autonomy and general well-being may peak in the middle of a career and then gradually decline. Unlike the career-stage-dependent autonomy trajectory in Korea, which is fueled by intensive systems and structured expectations, Mozambique's stable moderate autonomy may be a reflection of contextual resilience shaped by local culture, flexible roles, and relational dynamics.

Environmental Mastery

Item	N	Mean	Std.Error	SD	Min	Max	% of Max (7)
The demands of everyday life often get me down	131	4.05	0.181	2.07	1.00	7.00	57.9%
I feel I am in charge of the situation in which I live	131	4.80	0.179	2.05	1.00	7.00	68.6%
I am good at managing the responsibilities of daily life	131	4.88	0.189	2.16	1.00	7.00	69.8%
Total	—	**4.58**	—	—	—	—	**65.4%**

At an average score of 4.58 out of 7, or 65.4% of the maximum score, the Environmental Mastery dimension indicates a moderate to moderately high level of psychological well-being among the nurses. The item with the highest average score (4.88), "I am good at managing the responsibilities of daily life," indicates that most

nurses believe they are competent enough to handle daily demands. The item "I feel I am in charge of the situation in which I live" also received a score of 4.80, suggesting that the respondent has a reasonable amount of control over their surroundings. The item "The demands of everyday life often get me down" received a lower score (4.05), indicating that a sizable percentage of participants continue to feel stressed or overwhelmed by the demands of daily life. The moderate environmental mastery (M = 4.58; 65.4%) found in the Pemba study is somewhat consistent with the findings of Omri et al. (2022) in Tunisia, where nurses demonstrated a moderate level of compassion satisfaction, indicating functional well-being under stress. Fahmy et al. (2022), on the other hand, discovered that Egyptian nurses experienced high levels of compassion fatigue, indicating a higher level of emotional overload. These discrepancies most likely reflect methodological, systemic, and contextual variations. From a systematic and methodological standpoint, the Pemba study employed Ryff's more comprehensive well-being model, whereas the other studies narrowly focused on compassion fatigue, capturing more intense emotional strain during COVID-19 in various contexts.

Personal Growth

Item	**N**	**Mean**	**Std. Error**	**SD**	**Min**	**Max**	**% of Max (7)**
Life has been a continuous process of learning, changing, and growth	131	5.69	0.161	1.84	1.00	7.00	81.3%
Important to have new experiences that challenge how I think about myself and the world	131	5.21	0.188	2.15	1.00	7.00	74.5%
I gave up trying to make big improvements or changes in my life a long time ago	131	3.21	0.188	2.16	1.00	7.00	45.9%
Total	—	**4.70**	—	—	—	—	**67.2%**

According to the data, nurses typically report a moderately high level of personal growth (Mean = 4.70, 67.2% of the maximum). Many of them value new, challenging experiences that encourage self-reflection (Mean = 5.21, 74.5%) and see their lives as involving ongoing learning and development (Mean = 5.69, 81.3%). The fact that some nurses scored lower on the item "I gave up trying to make big improvements or changes" (Mean = 3.21, 45.9%) raises the possibility that burnout or systemic stressors are the cause of their feelings of disempowerment or stagnation. This disparity suggests that although the mindset is growth-oriented overall, emotional exhaustion or outside limitations may impede more profound personal transformation.

In contrast to Mthembu and Mtshali's (2017, 2019) findings of low psychological well-being among South African nurses as a result of burnout and systemic strain, the Pemba study (Mean = 4.70; 67.2%) demonstrates moderately high personal growth. Mozambican nurses exhibit a growth-oriented mindset in spite of emotional difficulties. The pressures of the healthcare system, the availability of support, and cultural views of adversity are probably the causes of these differences. Compared to their South African counterparts, Mozambican nurses report greater personal growth, most likely as a result of stronger social support, less institutional pressure, and culturally adaptive perspectives on adversity. Mozambican nurses may find resilience in community-based care and collectivist values, whereas South African nurses experience more systemic strain and a lack of emotional support. These cultural and contextual variations influence how psychological well-being is felt in comparable stressful situations.

Relationship with other

Item	N	Original Mean	Reverse Scored Mean	% of Max (7)	Std. Deviation
Maintaining close relationships has been difficult and frustrating for me	131	4.10	3.90	55.7%	2.33
People would describe me as a giving person, willing to share my time with others	131	5.02	—	71.7%	1.90
I have not experienced many warm and trusting relationships with others	131	4.33	3.67	52.4%	2.23
Total	—	—	**4.20**	**60.0%**	—

With an average reverse-scored mean of 4.20 out of 7 a (60%) the data show that nurses have a moderate level of psychological well-being in the area of relationships with others. Although they are typically regarded as helpful and giving (71.7%), many of them report having trouble sustaining intimate relationships (55.7%) and lacking warm, trustworthy connections (52.4%). This point to a relationship imbalance nurses help others a lot but might not get the same emotional support in return which is probably caused by stress at work, emotional exhaustion, or a lack of time for interpersonal relationships. The results of the Indian and Korean studies, which placed more emphasis on environmental mastery, autonomy, and overall psychological well-being than on relational aspects, are in contrast to the Pemba Provincial Hospital's findings regarding moderate relationship well-being (Mean = 4.20; 60%). Madhuchandra and Srimatithi (2018) did not address interpersonal dynamics, despite finding that Indian nurses scored higher on environmental mastery and autonomy. Similarly, Lee et al. (2024) found that Korean nurses' psychological well-being varied according to their years of experience, but they did not investigate relational well-being. As a result, the Pemba findings specifically draw attention to emotional imbalance in relationships, which may be influenced by systemic and cultural factors that were not highlighted in the other research.

CONCLUSION

The study concluded that nurses in Pemba Provincial hospital had low and moderate psychological well-being**,** suggesting significant emotional distress and potential struggles with coping mechanisms. Additionally, psychological well-being among nurses was generally low, with no participants reporting high levels of well-being, underscoring the widespread struggles with stress, burnout, and emotional fatigue. Nurses should prioritize self-care by setting personal boundaries, maintaining a healthy work-life balance, and engaging in activities that promote relaxation and well-being. They should also recognize early signs of burnout and seek professional help or peer support when experiencing emotional exhaustion. In addition, they need to build supportive networks with colleagues to reduce feelings of isolation and enhance teamwork in stressful situations.

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