

THE INFLUENCE OF MENTAL HEALTH ASPECTS ON HEALTH-RELATED QUALITY OF LIFE (HRQOL) AMONG NURSES IN SECONDARY HEALTHCARE SETTINGS OF SOUTH PUNJAB, PAKISTAN

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Abstract

Health-related quality of life (HRQOL) has become a critical indicator of healthcare workforce well-being, particularly among nurses who operate in high-pressure environments. This study explores the influence of mental health aspects—specifically stress, emotional well-being, and work-life balance—on the HRQOL of nurses working in secondary healthcare hospitals in South Punjab, Pakistan. A cross-sectional analytical design was employed using the WHOQOL-BREF instrument, with a sample of 196 nurses selected through convenience sampling. The findings indicate that mental health factors significantly influence HRQOL. High levels of occupational stress, emotional exhaustion, and poor work-life balance were associated with reduced HRQOL scores. Despite these challenges, a considerable proportion of nurses reported good overall quality of life, reflecting resilience and coping mechanisms. Statistical analysis showed significant associations between HRQOL and work-related stressors, social support, and environmental factors. The study concludes that improving mental health conditions through institutional support, stress management interventions, and policies promoting work-life balance can substantially enhance HRQOL among nurses. These findings have implications for healthcare administrators, policymakers, and future research in occupational health.

1. INTRODUCTION

Nurses constitute the backbone of healthcare systems worldwide, playing a pivotal role in ensuring the delivery of safe, effective, and compassionate care. Their importance becomes even more pronounced in developing regions such as South Punjab, Pakistan, where healthcare infrastructures often face resource constraints, workforce shortages, and high patient-to-nurse ratios. In such contexts, nurses are not only

responsible for clinical and technical tasks but also serve as emotional caregivers, patient advocates, and coordinators within multidisciplinary healthcare teams. This multifaceted role significantly increases their workload and exposes them to a range of occupational stressors that can adversely affect their mental health and overall well-being (Aiken et al., 2012; WHO, 2020). Health-Related Quality of Life (HRQOL) is a multidimensional construct that encompasses

physical, psychological, and social aspects of an individual's well-being. It reflects a person's subjective perception of their health status in relation to their cultural context, expectations, and environmental conditions (WHOQOL Group, 1995). Within the nursing profession, HRQOL is influenced by several factors, including workload, workplace environment, emotional demands, interpersonal relationships, and the ability to maintain a balance between professional responsibilities and personal life (Brooks et al., 2018). Poor HRQOL among nurses not only affects their personal health but also compromises patient care outcomes, job satisfaction, and organizational efficiency.

In the specific context of South Punjab, nurses frequently encounter challenging working conditions characterized by limited medical resources, inadequate staffing, extended working hours, and high patient volumes. Additionally, socio-cultural pressures, including gender norms, family expectations, and limited professional recognition, further exacerbate the challenges faced by nurses in this region. These factors collectively contribute to increased levels of psychological distress, including stress, anxiety, burnout, and emotional exhaustion (Khamisa et al., 2015; Labrague & De los Santos, 2020). Such mental health issues are critical determinants of HRQOL, as they directly influence nurses' physical health, emotional stability, and social functioning.

Among the various determinants of HRQOL, mental health aspects such as stress, emotional well-being, and work-life balance play a particularly significant role. Occupational stress in nursing arises from multiple sources, including heavy workloads, time pressure, exposure to suffering and death, and interpersonal conflicts within healthcare settings. Chronic exposure to these stressors can lead to burnout, reduced job performance, and diminished quality of life (Maslach & Leiter, 2016). Emotional well-being, on the other hand, refers to an individual's ability to manage emotions, maintain positive relationships, and cope effectively with challenges. Nurses with higher levels of emotional well-being

are better equipped to handle workplace demands and maintain a higher HRQOL (Diener et al., 2018).

Work-life balance is another crucial factor influencing HRQOL among nurses. The demanding nature of nursing often results in long and irregular working hours, making it difficult for nurses to fulfill personal and family responsibilities. Poor work-life balance can lead to increased stress, job dissatisfaction, and negative health outcomes, ultimately reducing overall quality of life (Greenhaus & Allen, 2011). In developing regions, where institutional support systems are often limited, achieving a healthy work-life balance becomes even more challenging. Given these considerations, it is essential to examine the interplay between mental health factors and HRQOL among nurses, particularly in under-resourced settings such as South Punjab. Understanding how stress, emotional well-being, and work-life balance influence nurses' quality of life can provide valuable insights for policymakers, healthcare administrators, and researchers. Such insights can inform the development of targeted interventions aimed at improving nurses' mental health, enhancing their quality of life, and ultimately strengthening healthcare delivery systems.

This study, therefore, focuses on the mental health dimension of HRQOL, specifically investigating the influence of stress, emotional well-being, and work-life balance on nurses' quality of life in South Punjab, Pakistan. By addressing these critical factors, the research aims to contribute to the existing body of knowledge and provide practical recommendations for improving the well-being of nurses in challenging healthcare environments.

2. Literature Review

HRQOL is a multidimensional construct encompassing physical health, psychological state, social relationships, and environmental context. It provides a comprehensive framework for assessing well-being in healthcare professionals (Ismail, 2011). Occupational stress is a major determinant of HRQOL among nurses. Studies indicate that high stress levels are associated with decreased

mental health scores and increased burnout (Scheffelaar et al., 2018).

Globally, nurses face stress due to:

- Heavy workloads
- Emotional demands of patient care
- Lack of organizational support

Stress negatively impacts both mental health and productivity, leading to reduced HRQOL.

Emotional well-being refers to an individual's ability to manage emotions, cope with stress, and maintain psychological stability. Poor emotional well-being is linked to anxiety, depression, and reduced job satisfaction. Research shows that improved emotional health reduces turnover intention and enhances quality of life (Perry et al., 2017). Work-life balance is crucial for maintaining mental health. Nurses often struggle to balance professional responsibilities with family commitments due to shift work and long hours. Supportive work environments and flexible scheduling significantly improve HRQOL (Laschinger, 2004; Flynn et al., 2018).

Mental health concerns among nurses in Pakistan remain an under-researched yet critically important area, particularly given the demanding nature of their profession. The limited body of available literature consistently highlights high levels of occupational stress among Pakistani nurses, primarily driven by excessive workloads, staff shortages, long duty hours, and exposure to critically ill patients. In many public-sector hospitals, especially in regions like South Punjab, the nurse-to-patient ratio is significantly imbalanced, increasing both physical and psychological strain. Studies have shown that such chronic workplace stress often leads to burnout, emotional exhaustion, and decreased job performance, ultimately affecting both the well-being of nurses and the quality of patient care (Khamisa et al., 2015; Malik et al., 2020). Furthermore, the hierarchical structure within healthcare settings in Pakistan may limit nurses' autonomy and decision-making power, adding to workplace stress and dissatisfaction.

In addition to high stress levels, Pakistani nurses often face limited access to psychological support systems and work in suboptimal conditions, which

further exacerbate mental health challenges. Institutional mechanisms such as counseling services, mental health awareness programs, and stress management interventions are either insufficient or entirely absent in many healthcare facilities. Coupled with socio-cultural expectations and gender-related pressures, these limitations significantly hinder nurses' ability to cope with occupational stress effectively. Poor working conditions—including inadequate salaries, lack of professional recognition, and unsafe work environments—also contribute to decreased morale and job dissatisfaction. Collectively, these factors negatively impact nurses' Health-Related Quality of Life (HRQOL), leading to reduced emotional well-being, lower job satisfaction, and increased turnover intentions (Labrague et al., 2017; Shah et al., 2021). Addressing these challenges requires comprehensive policy interventions focusing on improving workplace conditions, enhancing psychological support systems, and promoting mental health awareness among healthcare professionals.

3. Methodology

3.1 Research Design

This study employed a quantitative, cross-sectional analytical research design to examine the influence of mental health factors—specifically stress, emotional well-being, and work-life balance—on the Health-Related Quality of Life (HRQOL) of nurses. A cross-sectional approach was considered appropriate as it allows for the collection and analysis of data from a defined population at a single point in time, enabling the identification of patterns, relationships, and associations among variables without requiring long-term follow-up (Setia, 2016). The analytical component of the design further facilitated the exploration of relationships between independent variables (mental health aspects) and dependent variables (HRQOL domains). This design is widely used in healthcare research due to its efficiency, cost-effectiveness, and ability to generate evidence for policy and intervention planning. However, it is important to note that while this design is useful

for identifying associations, it does not establish causality.

3.2 Study Setting and Data Collection

The study was conducted in secondary healthcare hospitals located in South Punjab, Pakistan, where healthcare services often operate under constrained resources and high patient loads. These settings were selected due to their critical role in providing essential healthcare services to a large population and the significant challenges faced by nursing staff in such environments. A total of 196 registered nurses participated in the study, selected through a convenience sampling technique based on their availability and willingness to participate. Data were collected using the standardized WHOQOL-BREF questionnaire, a widely validated instrument developed by the World Health Organization to assess quality of life across diverse cultural contexts (WHOQOL Group, 1995). The tool measures four key domains of HRQOL: physical health, psychological health, social relationships, and environmental conditions. The questionnaire was administered in a structured format, ensuring confidentiality and informed consent. Participants were briefed about the purpose of the study, and ethical considerations such as voluntary participation and anonymity were strictly

maintained throughout the data collection process.

3.3 Data Analysis

The collected data were systematically coded and analyzed using the Statistical Package for the Social Sciences (SPSS), which is commonly used in social and health sciences research for its robust analytical capabilities. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were employed to summarize the demographic characteristics of the participants and the distribution of HRQOL scores across different domains. Inferential statistical techniques were further applied to examine the relationships between mental health variables and HRQOL outcomes. Specifically, correlation tests (such as Pearson's correlation coefficient) were used to determine the strength and direction of associations between stress, emotional well-being, work-life balance, and HRQOL domains. These statistical analyses provided a comprehensive understanding of the patterns within the data and helped in drawing meaningful conclusions regarding the impact of mental health on nurses' quality of life. The level of statistical significance was set at $p < 0.05$ to ensure the reliability and validity of the findings.

4. Results

4.1 Demographic Profile

Variable	Category	Percentage (%)
Age	36–45 years	53.6
Marital Status	Married	64.8
Experience	>10 years	68.9

The demographic profile indicates that the majority of participants were within the age group of 36–45 years (53.6%), suggesting that most respondents were in their mid-career stage, where professional responsibilities are often at their peak. A significant proportion of the nurses were married (64.8%), which may imply additional family responsibilities alongside demanding professional duties. Furthermore, 68.9% of the

participants had more than 10 years of experience, reflecting a relatively experienced workforce. This level of experience may contribute to better clinical competence and coping strategies; however, it may also increase exposure to prolonged occupational stress. Overall, the demographic characteristics suggest a mature and experienced sample, which is relevant when

interpreting HRQOL outcomes in relation to mental health factors.

4.2 Overall HRQOL Assessment

HRQOL Indicator	Percentage (%)
Good/Very Good Quality of Life	90.9
Good/Very Good Health	86.3

The overall HRQOL assessment reveals that a high percentage of nurses reported good or very good quality of life (90.9%) and good or very good health status (86.3%). These findings suggest that despite working in challenging healthcare environments, most nurses perceive their overall well-being positively. This may be attributed to

resilience, professional commitment, and adaptive coping mechanisms developed over time. However, the relatively high self-reported HRQOL should be interpreted cautiously, as it may mask underlying mental health issues such as stress and emotional fatigue that are not always immediately reflected in general self-assessments.

4.3 Mental Health Factors Affecting HRQOL

Variable	Observation
Stress	High levels due to workload
Emotional Well-being	Moderate to low
Work-Life Balance	Poor in majority cases

The mental health indicators highlight critical challenges affecting nurses' HRQOL. High levels of stress, primarily due to workload and workplace demands, indicate a significant psychological burden on nurses. Emotional well-being being reported as moderate to low suggests that many nurses may struggle with managing emotions and maintaining psychological stability. Additionally,

the finding that work-life balance is poor in the majority of cases reflects the difficulty nurses face in balancing professional and personal responsibilities. Together, these factors demonstrate that mental health issues are prevalent and play a crucial role in shaping the overall quality of life of nurses.

4.4 Stress and HRQOL

Stress Level	Impact on HRQOL
High Stress	Reduced psychological well-being
Moderate Stress	Moderate HRQOL
Low Stress	Higher HRQOL

The relationship between stress levels and HRQOL clearly demonstrates a negative association. Nurses experiencing high stress levels tend to have reduced psychological well-being, which adversely affects their overall HRQOL.

Those with moderate stress levels exhibit moderate HRQOL, indicating a proportional relationship between stress and quality of life. In contrast, nurses with low stress levels report higher HRQOL, suggesting that effective stress

management can significantly improve well-being. This pattern confirms that stress is a key determinant of HRQOL and highlights the need

for interventions aimed at reducing workplace stress among nurses. Studies confirm that stress significantly lowers HRQOL among nurses.

4.5 Work-Life Balance

Work-Life Balance	HRQOL Outcome
Balanced	High HRQOL
Imbalanced	Low HRQOL

The findings related to work-life balance show a strong positive association with HRQOL. Nurses who maintain a balanced work-life dynamic tend to report higher HRQOL, indicating better physical, emotional, and social well-being. On the other hand, those experiencing work-life

imbalance report lower HRQOL, which may be due to fatigue, burnout, and reduced time for personal and family life. This suggests that organizational policies promoting flexible work schedules and adequate staffing can play a significant role in improving nurses' quality of life.

4.6 Emotional Well-being

Emotional State	Effect on HRQOL
Stable	Positive HRQOL
Distressed	Negative HRQOL

Emotional well-being is shown to have a direct impact on HRQOL. Nurses with a stable emotional state tend to experience positive HRQOL, reflecting better psychological health, job satisfaction, and interpersonal relationships. Conversely, those who are emotionally distressed report negative HRQOL outcomes, which may include anxiety, burnout, and reduced work performance. This highlights the importance of emotional health as a protective factor and underscores the need for psychological support systems within healthcare institutions to enhance nurses' overall well-being.

5. Key Statistical Findings and Discussion

The statistical analysis of the study revealed a significant association between mental health variables—namely stress, emotional well-being, and work-life balance—and the Health-Related Quality of Life (HRQOL) of nurses. The results indicated that the p-value for the relationship between these variables was less than 0.05, confirming statistical significance and suggesting that mental health factors play a crucial role in determining nurses'

overall quality of life. Among all variables, stress emerged as the most dominant predictor, showing a strong negative correlation with HRQOL domains, particularly psychological and physical health. These findings underscore the importance of addressing workplace stress in healthcare settings, as it directly influences nurses' well-being and their ability to deliver effective patient care.

The discussion of these findings highlights that mental health is a central determinant of HRQOL among nurses working in secondary healthcare hospitals in South Punjab. Despite the high levels of stress reported, a notable proportion of nurses (approximately 80–90%) indicated a relatively good quality of life. This paradox may be explained by the presence of resilience, adaptive coping strategies, and strong social or cultural support systems that enable nurses to manage occupational challenges effectively. Such resilience is often developed through professional experience, peer support, and personal coping mechanisms, allowing nurses to maintain functional well-being even in demanding environments. However, this should not

undermine the long-term risks associated with chronic stress exposure, which may eventually lead to burnout and deteriorating health outcomes if not addressed.

Stress, as identified in this study, significantly impacts multiple aspects of nurses' professional and personal lives. High stress levels were found to adversely affect emotional stability, reduce job performance, and compromise the quality of patient care. Nurses experiencing elevated stress are more likely to suffer from burnout, fatigue, and decreased motivation, which in turn lowers their HRQOL. Conversely, emotional well-being was observed to function as a protective factor. Nurses with higher levels of emotional well-being reported greater job satisfaction, improved interpersonal relationships, and lower levels of burnout. This suggests that promoting emotional health through counseling services, mental health programs, and supportive work environments can enhance nurses' overall quality of life and productivity.

Work-life balance also emerged as a critical factor influencing HRQOL. The demanding nature of nursing, characterized by long and irregular shifts, coupled with family and social responsibilities, often leads to an imbalance between professional and personal life. This imbalance contributes to increased stress and reduced well-being. Improving work-life balance through flexible scheduling, adequate staffing, and organizational support can significantly enhance HRQOL among nurses. Furthermore, the findings of this study are consistent with international research, including studies conducted in Australia (Perry et al., 2017), as well as in Greece and India, all of which report strong associations between mental health factors and quality of life among nurses. This consistency across different cultural and healthcare contexts reinforces the global relevance of mental health in shaping HRQOL and highlights the need for comprehensive interventions to support nursing professionals.

6. Conclusion

The findings of this study clearly demonstrate that emotional well-being plays a pivotal role in

determining the Health-Related Quality of Life (HRQOL) among nurses. Nurses who maintain emotional stability are more likely to experience positive psychological health, higher job satisfaction, and stronger interpersonal relationships, all of which contribute to an improved quality of life. In contrast, emotional distress—manifested through anxiety, burnout, and reduced work efficiency—negatively affects both personal well-being and professional performance. Given the demanding nature of nursing, particularly in resource-constrained settings like South Punjab, emotional health emerges as a critical protective factor that enables nurses to cope with occupational stressors. Overall, the study highlights that mental health components, especially emotional well-being, are integral to sustaining a healthy, productive, and resilient nursing workforce, ultimately influencing the quality of patient care and healthcare outcomes.

7. Recommendations

Based on the study findings, several recommendations can be proposed to enhance the emotional well-being and HRQOL of nurses. First, healthcare institutions should establish structured psychological support systems, including counseling services, stress management programs, and mental health awareness initiatives, to help nurses cope with emotional challenges. Second, hospital administrations should focus on improving working conditions by ensuring adequate staffing, reducing excessive workloads, and promoting a supportive work environment. Third, policies aimed at enhancing work-life balance—such as flexible duty schedules, regulated working hours, and provision of leave—should be implemented to reduce burnout and improve overall well-being. Additionally, training programs focusing on emotional intelligence, resilience building, and coping strategies should be incorporated into professional development initiatives for nurses. Finally, policymakers should recognize the importance of nurses' mental health and allocate resources to strengthen healthcare

systems in a way that prioritizes the well-being of frontline workers.

8. Limitations of the Study

Despite its significant contributions, this study has several limitations that should be acknowledged. Firstly, the use of a cross-sectional research design restricts the ability to establish causal relationships between mental health factors and HRQOL, as data were collected at a single point in time. Secondly, the study employed a convenience sampling technique, which may limit the generalizability of the findings to all nurses in Pakistan or other regions. Thirdly, the reliance on self-reported data through questionnaires may introduce response bias, as participants might overestimate or underestimate their actual experiences. Additionally, the study was confined to secondary healthcare hospitals in South Punjab, which may not fully represent conditions in primary or tertiary healthcare settings. Future research should consider longitudinal designs, larger and more diverse samples, and mixed-method approaches to gain a more comprehensive understanding of the relationship between mental health and HRQOL among nurses.

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