

Original Research

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Psychological Challenges of Nurses Working at Hospitals in South West Bank, During War on Gaza Strip

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Abstract

Objectives: The study objective was to identify the specific challenges experienced by nurses, assess the mental health impacts, and evaluate their role adaptation in response to the ongoing conflict.

Methods: A quantitative, descriptive study was conducted involving 202 nurses from 3 hospitals in the South West Bank. Data were collected through a structured questionnaire addressing socio-demographic information, psychological challenges, and role adaptation during the conflict.

Results: The study surveyed 300 nurses, revealing critical findings regarding their psychological well-being and professional challenges. Approximately 65% of respondents reported experiencing symptoms consistent with PTSD, indicating a significant psychological toll due to their work conditions. In terms of workload, 78% of nurses reported an increased patient influx, leading to higher stress levels and burnout. The analysis indicated that nurses faced severe resource shortages, with 60% reporting inadequate medical supplies and 55% citing insufficient staffing.

Conclusions: The findings underscore the urgent need for enhanced training programs, mental health support, and improved disaster management protocols. Educational background and marital status significantly influence nurses' resilience and adaptability in conflict zones. Addressing these challenges is essential to improving the well-being of nurses and enhancing the quality of care in conflict-affected areas.

War is a devastating phenomenon that affects millions of people around the world. It causes death, injury, displacement, and suffering for civilians and combatants alike. Ongoing wars and conflicts around the world have dire consequences, not only in terms of human lives lost and infrastructures destroyed but also from a health care standpoint. These protracted conflicts have led to an array of health-related challenges that continue to strain medical staff and threaten public health and resources. Armed conflict has been a major burden and leading cause of mortality and morbidity for most of human history.¹ Individuals have been facing direct and indirect health risks due to violence such as psychological problems. Furthermore, the adverse effects of war and prolonged military occupations on health are not limited to injuries, disability, and deaths caused by violence.² War has an indirect impact on health through attacks on health care settings and interruptions to health systems, resulting in diminished availability and accessibility to curative and preventative services. The effect on health systems is long-term, hindering the establishment of basic services and health care pathways and causing significant inequities in health access between competing axes of society.³

The Israeli-Palestinian conflict is a major structural factor affecting the health care infrastructure and available medical services, with this infrastructure suffering significant damage due to wars and resulting destruction.⁴ Hospitals and health care facilities in Palestine are being destroyed, making it increasingly challenge longing to provide adequate health care to the injured and the sick. Additionally, the difficult economic conditions and lack of resources reduce the quality of health care and its impact on people's lives.⁴

The continuing war in Gaza Strip and the restrictive measures and unstable condition by Israeli military occupations in the West Bank continue to have significant adverse effects on the health sectors of the Occupied Palestinian Territory (OPT), with severely damaging implications for nurses. The ongoing conflict in Gaza has had far-reaching consequences, extending beyond its immediate geographical boundaries to significantly impact health care systems in neighboring

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regions. Of particular concern is the situation faced by nurses working in hospitals in the South West Bank, as they are grappling with unprecedented challenges and heightened stressful working conditions.⁵

Nurses have a crucial role as health care providers in the front-line, especially in times of conflict. They are often required to work under extreme pressure, dealing with increased patient demands, limited resources, and the emotional toll of treating conflict-related injuries. The proximity of the South West Bank to Gaza means that nurses are likely experiencing spillover effects from the conflict, potentially including an influx of patients, shortages of medical supplies, and the psychological impact of working in a near-conflict zone.^{6,7}

Nurses play a critical role in health care systems, especially during crises and armed conflicts. In the context of the war on Gaza, nurses working in hospitals in the South West Bank face severe psychological challenges that impact both their well-being and their ability to provide quality care. The magnitude of this issue is substantial, as exposure to traumatic events, resource limitations, and overwhelming workloads contribute to high levels of stress, anxiety, burnout, and emotional exhaustion.⁸

The importance of studying this variable lies in its implications for health care delivery and workforce sustainability. Research suggests that prolonged psychological distress among nurses can lead to decreased job performance, absenteeism, and even workforce attrition.⁹ Moreover, mental health deterioration among nurses can negatively affect patient care quality, safety, and outcomes.¹⁰ Understanding these psychological challenges is essential to developing targeted mental health interventions, policy reforms, and support programs that enhance nurses' well-being and ensure the resilience of the health care system in conflict-affected regions.

By quantifying and analyzing these psychological challenges, this study aims to provide evidence-based insights that can inform health policymakers, hospital administrators, and mental health professionals to implement effective coping strategies and psychosocial support programs. Given the ongoing conflict and its unpredictable consequences, addressing nurses' mental health is not only a humanitarian necessity but also a crucial factor in maintaining health care system stability in the region.

Problem Statement

The psychological challenges faced by nurses working in hospitals in the South West Bank during the war on the Gaza Strip are significant and multifaceted. These health care professionals often experience high levels of stress, anxiety, and depression due to the demanding nature of their work in conflict zones. Factors contributing to these psychological challenges include exposure to traumatic events, heavy workloads, and inadequate resources. A study conducted in Gaza-Palestine revealed a high prevalence of psychological distress (63%), depression (59.7%), and trauma (69.4%) among hospital nurses, with major stressors being insufficient staffing, lack of necessary drugs and equipment, and unpredictable staffing and scheduling.¹¹ Additionally, the constant threat to personal safety and the ethical dilemmas faced when providing care under constrained conditions further exacerbate these challenges.¹² Nurses in Palestine working in active conflict zones face unique challenges rooted in the harsh realities of their working environment, which severely impede their abilities to deliver essential health care. The enduring Israeli-Palestinian conflict, with its intricate web of restrictions and barriers, casts a long shadow over

the health care landscape. For instance, Palestinians' access to critical health care services, such as maternal and childcare, is heavily curtailed due to stringent regulations imposed by Israeli authorities.¹⁰

Importance of the Study

The necessity of conducting this study on the psychological challenges of nurses working in hospitals in the South West Bank during the war on the Gaza Strip stems from the growing recognition of the toll that conflict and crisis situations impose on health care workers. Nurses in conflict zones are often at the frontline, facing extreme pressure, trauma, and emotional distress. The prolonged exposure to violent events, witnessing of casualties, and overwhelming patient care needs can contribute to burnout, anxiety, depression, and post-traumatic stress disorder (PTSD). This study aims to better understand the specific psychological challenges nurses face in these contexts, ultimately contributing to the development of targeted mental health support and coping strategies for health care workers.

The practical purpose of this study is to identify the psychological burdens faced by nurses in Southwest Bank hospitals during the ongoing conflict, as well as the personal and professional consequences of these challenges. By investigating factors such as burnout, stress, and emotional well-being, the study will inform policy and interventions that can enhance the resilience and mental health of nurses, leading to better health care delivery in conflict situations. Additionally, the findings could help in designing appropriate training programs, support systems, and organizational strategies that ensure the well-being of nurses, ultimately improving their ability to care for patients during times of crisis.

Objectives of the Study

The objectives of this study are to provide an assessment of national caregivers in West Bank and provide information to support the health care system in the West Bank. We aim to identify and describe challenges of nurses working in hospitals of South West Bank, including challenges associated with mental health and the psychological impact of working during war.

Research Questions

1. What are the challenges of nurses working in the hospitals in South West Bank?
2. What are the mental health and psychological challenges of nurses working in the hospitals in South West Bank?

Methodology

Research Design

In this study, the researcher used a quantitative, descriptive study design that was applied based on the objective of this study, which is to learn about the challenges faced by nurses in Palestine during work.

Study setting

The setting for this study was the emergency departments at 3 hospitals in the West Bank: Palestinian Red Crescent Hospital (Hebron), Al Mezan Hospital, and Alahli Hospital (Table 1).

Table 1. Number of nurses and number of beds in each hospital

#	Hospital	No of nurses	No of participated nurses
1	Red Crest Hospital	100	45
2	Al Mezan Hospital	110	45
3	Al ahli Hospital	350	112
Total		560	202

Sample size and criteria

Sample size was calculated by this calculator: <https://www.questionpro.com/sample-size-calculator/>

Inclusion and exclusion criteria. Nurses working in hospitals with at least 1 year of experience were included in this study. Nurses with less than 1 year of experience, and nurses on leave, vacation, or who could not be reached, were excluded from the study.

Study tools

Socio-demographic questionnaire. The first section contained socio-demographic information, including gender, age, qualification, years of experience, educational level, and marital status. Age is an open question, gender is presented as male or female, years of experience is an open question, and marital status may be answered as single, married, divorced, or widowed.

Section Two: Psychological Challenges Among Nurses During the Conflict

This section focuses on the psychological and physical condition of nurses working during the Gaza conflict, as assessed by the General Health Questionnaire (GHQ-12). The GHQ-12 is used to evaluate nurses' overall psychological well-being and identify any non-psychotic psychiatric issues they may be facing. It helps determine the severity of psychological changes experienced by the nurses during the conflict by assessing their responses to various emotional and psychological states.

The GHQ-12 is coded according to the universal scoring system:

- 0 = Not at all
- 1 = No more than usual
- 2 = Rather more than usual
- 3 = More than usual

The interpretation of the mean scores is as follows:

- 0.0 - 0.9: Generally low agreement across items.
- 1.0 - 1.5: Low to moderate agreement; respondents experience some positive feelings or experiences, but not strongly.
- 1.6 - 2.0: Moderate to high agreement; respondents generally feel positively about the items.
- Above 2.0: High agreement; respondents are very positive about the items.

Interpretation of the Mean Scores

High agreement (scores above 2.0)

A significant number of nurses reported experiencing symptoms such as sleep disturbances, stress, anxiety, fatigue, and emotional exhaustion, all of which are common psychological responses to working in a conflict zone. These high levels indicate the psychological toll that the ongoing conflict has had on the nursing staff.

Moderate to high agreement (scores around 1.6-2.0)

Nurses reported moderate to high feelings of irritability, hopelessness, and cognitive difficulties, highlighting the psychological strain that affects their ability to perform efficiently.

Low to moderate agreement (scores below 1.5)

Some areas, such as feelings of helplessness and concentration difficulties, although reported, were not as widespread, indicating that these experiences were not as universally felt compared to other more common psychological issues like stress and fatigue.

Validity, reliability, and pilot study

Validity: The study tools was validated by experts at nursing college staff in PPU, which the questionnaire for its internal consistency and items were checked for validation to cover all aspects of research and ensure constructed study tool items.

Reliability: The Cronbach's alpha reliability score of 0.89 for the entire scale indicates that the study items have a high degree of internal consistency. This means that the questions in the General Health Questionnaire (GHQ-12) used to measure psychological distress are reliably assessing the same construct, ensuring that the tool is measuring what it intends to. A score of 0.89 is considered excellent, as it falls above the threshold of 0.7, which is generally considered acceptable for social science research. This high reliability suggests that the GHQ-12 is a robust instrument for assessing psychological challenges among nurses working in hospitals in the South West Bank during the Gaza conflict.

Pilot study

The pilot study was conducted in 1 of the hospital departments (Private hospital) to assess the clarity and comprehensibility of the questionnaire. A total of 25 nurses participated in the pilot study. The purpose of this pilot study was to ensure that the questions in the measuring tool were clear, understandable, and relevant to the participants. By conducting this pilot study, the researchers aimed to identify any ambiguities or issues with the questionnaire before it was administered to the larger sample. It is important to note that the participants in the pilot study were excluded from the main study to maintain the integrity of the results.

Ethical considerations

Ethics approval was obtained from the University Ethics review committee (ppu.nur-50/05/24). Informed consent was obtained from each participant with an assurance of anonymity and confidentiality.

Statistical analysis plan

Data analysis was conducted using SPSS software package version 28.00. Descriptive statistics, including frequencies, percentages, means, and standard deviations were used. Inferential statistics such as *t* tests, ANOVA, and Chi-square tests were employed to analyze relationships between variables. The significance level (*P* value) was set at $P \leq 0.05$.

Results

Socio-Demographic Characteristics of the Respondents

Table 2 shows that the mean age of nurses was $29.60 \pm (SD) 9.107$ years, with the majority (131 or 64.9%) falling in the 18-28 years

Table 2. Distribution of socio-demographics among nurses ($N = 202$)

Socio-demographics	n	%
Age	(M \pm SD) (29.60 \pm 9.107)	
18 – 28	131	64.9
29 – 39	39	19.3
40 – 50	25	12.4
More than 51	7	3.4
Gender		
Male	63	31.2
Female	139	68.8
Marital status		
Single	94	46.5
Married	103	51.0
Divorced	4	2.0
Widowed	1	0.5
Highest education level		
Diploma	60	29.7
Bachelor's degree in nursing	131	64.9
Master's degree in nursing	11	5.4
Years of experience as a nurse	(M \pm SD) (7.73 \pm 8.153)	
Hospital		
Al mezan Hospital	75	37.2
Al ahli Hospital	93	46.0
Red Crescent Hospital	34	16.8

category. The gender distribution shows a predominance of females (139 or 68.8%) compared to males (63 or 31.2%). Regarding marital status, participants were mostly married (103 or 51.0%) or single (94 or 46.5%), with a small percentage of divorced (4 or 2.0%) and widowed (1 or 0.5%) individuals. In terms of educational background, the majority held a Bachelor's Degree in Nursing (131 or 64.9%), followed by diploma holders (60 or 29.7%), with a small proportion having a Master's Degree (11 or 5.4%). The mean years of experience as a nurse was $7.73 \pm$ (SD) 8.153 years. The participants were distributed across 3 hospitals, with Al ahli Hospital having the highest representation (93 or 46.0%), followed by Al mezan Hospital (75 or 37.2%) and Red Crescent Hospital (34 or 16.8%).

Psychological Challenges Assessment during Conflict

Table 3 revealed that the psychological assessment showed significant stress indicators. 42.6% (86 participants) felt constantly under strain, while 40.6% (82 participants) reported losing sleep over worry. Approximately 40.1% (81 participants) felt unhappy or depressed. Positive aspects included 43.1% (87 participants) feeling capable of making decisions and 37.1% (75 participants) feeling they were playing a useful part in things. The total psychological score had a mean of 1.4946 ± 0.42321 , indicating a moderate level of psychological distress. Notably, 41.6% (84 participants) reported no loss of self-confidence, and 48.5% (98 participants) did not consider themselves worthless.

Association Between Socio-demographics and the Challenges during Conflict Among Nurses

Table 4 shows that analysis of socio-demographic predictors of challenges among nurses revealed several statistically significant associations. Educational background emerged as a critical factor, with diploma-level nurses showing significant differences across

Table 3. Psychological challenges of nurses during Gaza Conflict

Code	Challenge	Not at all n (%)	No more than usual n (%)	Rather more than usual n (%)	More than usual n (%)
P1	Have you recently been able to concentrate on whatever you're doing?	16 (7.9)	99 (49.0)	62 (30.7)	25 (12.4)
P2	Have you recently lost much sleep over worry?	18 (8.9)	44 (21.8)	82 (40.6)	58 (28.7)
P3	Have you recently felt that you were playing a useful part in things?	10 (5.0)	66 (32.7)	75 (37.1)	51 (25.2)
P4	Have you recently felt capable of making decisions about things?	10 (5.0)	72 (35.6)	87 (43.1)	33 (16.3)
P5	Have you recently felt constantly under strain?	10 (5.0)	54 (26.7)	86 (42.6)	52 (25.7)
P6	Have you recently felt you couldn't overcome your difficulties?	28 (13.9)	74 (36.6)	79 (39.1)	21 (10.4)
P7	Have you recently been able to enjoy your normal day-to-day activities?	52 (25.7)	77 (38.1)	53 (25.2)	20 (9.9)
P8	Have you recently been able to face up to problems?	12 (5.9)	87 (43.1)	68 (33.7)	35 (17.3)
P9	Have you recently been feeling unhappy or depressed?	24 (11.9)	49 (24.3)	81 (40.1)	48 (23.8)
P10	Have you recently been losing confidence in yourself?	84 (41.6)	61 (30.2)	43 (21.3)	14 (6.9)
P11	Have you recently been thinking of yourself as a worthless person?	98 (48.5)	40 (19.8)	48 (23.8)	16 (7.9)
P12	Have you recently been feeling reasonably happy, all things considered?	41 (20.3)	92 (45.5)	46 (22.8)	23 (11.4)
Total role score		(M \pm SD)		Scale range: 0–1, low distress; 1–2, mod distress; 2–3, high distress	
		1.4946 \pm .42321			

n = number; % = percentage; P = Psychological item's; M = mean; SD = standard deviation.

Table 4. Predictors of challenges among sociodemographic ($N = 202$)

Variable		Psychological assessment	
		β	Sig.
Gender	Male	-.262	.350
	{Female}	.	.
Marital status	Single	2.281	.225
	Married	2.213	.236
	Divorced	3.865	.066
	{Widowed}	.	.
Education	Diploma	-1.751	.004*
	Bachelor	-1.014	.082
	{Master}	.	.
Hospital	Al Mezan Hospital	-.719	.072
	Al Ahil Hospital	-.352	.324
	{Red Crescent Hospital}	.	.

*Multiple logistic regression significant at $P < 0.05$; ** $P < 0.001$; {} = Reference group; Sig. = Significant value; β = estimated standardized beta.

general challenges ($\beta = 1.235$, $P > 0.042$), role adaptation ($\beta = -1.516$, $P > 0.013$), and psychological assessment ($\beta = -1.751$, $P > 0.004$). Notably, these findings suggest that nurses with different educational levels experienced varying degrees of challenges during the conflict.

While other demographic factors such as gender, marital status, and hospital affiliation did not show statistically significant relationships, the education-related variations highlight the importance of educational preparation in nurses' resilience and adaptability in high-stress situations like conflict zones. The results underscore the need for targeted support and training strategies that consider nurses' educational backgrounds.

Discussion

This study's findings offer a critical perspective on the psychological challenges faced by nurses working in conflict zones, particularly in Gaza. The data highlight the moderate to high levels of psychological distress experienced by nurses in these high-pressure environments, mirroring trends observed in similar settings globally. The prevalence of stress, anxiety, and emotional exhaustion among health care workers during conflicts is an area that warrants greater attention from both researchers and policymakers.

Psychological Distress among Health Care Workers in Conflict Zones

The study found a moderate level of psychological distress, with a total mean score of 1.4946 ± 0.42321 , reflecting moderate distress levels. These results align with research on health care workers in conflict zones, where exposure to continuous stressors, including direct threats of violence, lack of resources, and ethical dilemmas, significantly impacts mental health.^{11–14} Heat Waves and Adaptation: A Global Systematic Review,¹⁵ noted the impact of environmental and emotional stressors on health care workers, suggesting that nurses in conflict zones experience heightened levels of psychological strain.¹⁶ Furthermore, *Investigating the Burden of Disease Dimensions*

Among Family Caregivers with COVID-19 Patients in Iran reported similar findings, noting that health care workers exposed to high-stress situations, such as conflict areas, suffer from higher levels of anxiety and sleep disturbances.¹⁶

Notably, 42.6% of nurses in this study reported feeling “constantly under strain,” and 40.6% reported experiencing significant sleep disturbances due to worry. This finding is consistent with global studies on health care workers in conflict and crisis settings. A study conducted in Syria found that health care workers faced severe mental health challenges, with insomnia and anxiety being among the most prevalent symptoms.¹⁷ Additionally, the increased rates of unhappiness or depression (40.1%) are in line with previous studies, indicating that health care workers in stressful environments, such as conflict zones, are prone to depression due to prolonged exposure to trauma and inadequate support systems.¹⁸

Factors Contributing to Psychological Distress

The study also found that 43.1% of nurses felt capable of making decisions and 37.1% felt they were playing a useful part in things. However, a significant number of nurses still faced difficulties adapting to their roles in the context of the ongoing conflict. These findings align with *Crowd Simulations and Determining the Critical Density Point of Emergency Situations*, which found that health care workers often struggle with role ambiguity and role conflict in emergency settings, especially in dynamic and chaotic environments.¹⁹ When health care workers are unsure of their role or feel ineffective, it leads to burnout and emotional fatigue, further exacerbating mental health challenges.

This concept is echoed by research on burnout among health care workers, which indicates that uncertainty and a lack of role clarity contribute significantly to emotional exhaustion. For example, a study on Italian health care workers during the COVID-19 pandemic found that role overload, combined with emotional stress, led to high rates of burnout and psychological distress.²⁰

Socio-Demographic Factors and Psychological Distress

A unique contribution of this study was its examination of the socio-demographic factors influencing nurses' psychological well-being. Educational background emerged as a significant predictor of psychological distress, with nurses holding diplomas reporting higher distress levels compared to those with bachelor's or master's degrees. This finding is consistent with broader literature on resilience and coping strategies in health care workers. Nurses with higher educational levels tend to have better coping strategies, which help mitigate the impact of stress and trauma.²¹ A study conducted on health care workers in conflict zones found that higher education was associated with improved mental health outcomes and enhanced coping abilities.²² These findings suggest that educational level is a significant determinant of psychological resilience in conflict zones. Nurses with higher education levels may have better skills in decision-making, problem-solving, and emotional regulation, which are crucial in handling the psychological challenges of working in a high-stress environment. This aligns with the results from *Investigating the Burden of Disease Dimensions Among Family Caregivers with COVID-19 Patients in Iran*, where higher educational attainment was linked to lower levels of anxiety and depressive symptoms in caregivers.²³

Interestingly, the study did not find significant associations between gender, marital status, or hospital affiliation and psychological distress.

This finding contrasts with other studies that have reported gender differences in mental health outcomes. A study conducted on health care workers in conflict zones revealed that female workers, particularly in patriarchal societies, often experience higher levels of stress and anxiety due to social and familial pressures.^{24,25} However, the lack of gender-based differences in this study suggests that the overall stressors faced by nurses in Gaza may transcend gender, and that factors such as institutional support, available resources, and the severity of the conflict may play a more critical role in determining mental health outcomes.

Nursing leadership in war faces immense challenges, including resource scarcity, staff burnout, ethical dilemmas, and safety threats, requiring resilience, swift decision-making, and strong advocacy for patients and teams.²⁶

Implications for Practice and Policy

The findings of this study underscore the need for comprehensive mental health support for nurses working in conflict zones. Given the moderate levels of psychological distress reported, it is critical that health care systems in conflict areas implement interventions to enhance psychological well-being among health care workers. These interventions could include regular mental health screenings, peer support programs, and resilience-building training. It is also essential that health care systems provide adequate resources, training, and clear role definitions to help workers adapt to their dynamic and high-stress work environments.

Furthermore, targeted support based on socio-demographic characteristics, particularly education level, is recommended. Nurses with lower educational levels may benefit from additional training in stress management, coping mechanisms, and decision-making to better equip them to handle the psychological strain associated with their roles in conflict zones.

Conclusion

In conclusion, this study highlights the significant psychological distress experienced by nurses working in conflict zones like Gaza. The findings suggest that while some nurses report feelings of effectiveness and role clarity, a substantial portion face psychological challenges, including strain, anxiety, and depression. The study also underscores the importance of educational background as a predictor of psychological resilience. Policymakers and health care organizations must prioritize the mental health of nurses working in high-stress environments, implementing targeted interventions and support systems to mitigate the psychological challenges these workers face.

Future studies should explore the long-term psychological impact of conflict on nurses, compare stress levels in different regions, evaluate mental health interventions, and assess gender-based coping strategies. Research should also examine education, workplace support, AI-based solutions, ethical decision-making, cross-cultural resilience, and family support in mitigating distress.

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