



FACTORS INFLUENCING NURSE RETENTION IN CONFLICT ZONES: A SYSTEMATIC REVIEW

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ABSTRACT

Nurse retention in conflict zones remains a critical global issue, significantly influencing the sustainability of healthcare services. Nurses in these areas face numerous challenges, including safety risks, emotional stress, and inadequate compensation, which impact their decision to continue working in such environments. This systematic review aims to identify and analyze factors influencing nurse retention in conflict zones and propose intervention strategies to address these challenges. A systematic review was conducted following PRISMA guidelines. Data were extracted from Scopus, PubMed, Web of Science, and CINAHL databases. Studies focusing on nurse retention in conflict zones were included, with data extraction guided by the PICOS framework. The quality of the included studies was assessed using Joanna Briggs Institute tools. A total of fifteen studies were reviewed, identifying key factors for nurse retention. These include improved working conditions, adequate safety measures, financial incentives (e.g., risk allowances), and emotional support systems. Job satisfaction, influenced by job security and a supportive work environment, was also a significant determinant of retention. Emotional and psychological support systems were found to reduce burnout, thereby fostering nurse retention. A multifaceted approach, incorporating improved working conditions, enhanced financial incentives, and robust emotional support, is essential for retaining nurses in conflict zones. Future research should focus on the long-term impact of these strategies and their adaptation to region-specific needs.

Keywords: conflict zones; emotional support; intervention strategies; job satisfaction; nurse retention

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INTRODUCTION

The retention of nurses in conflict zones remains a critical challenge that significantly impacts the global healthcare system. In conflict-affected regions, healthcare services are often disrupted due to shortages of skilled professionals, inadequate resources, and safety concerns. Nurses, who are at the forefront of patient care, face immense pressures while working under conditions of instability, violence, and limited infrastructure. These challenges often lead to high turnover rates, further exacerbating the healthcare crisis in these regions (Witter et al., 2017). One of the most prominent issues influencing nurse retention in conflict zones is the interplay between intrinsic and extrinsic factors. Intrinsic factors, such as personal motivation and a sense of duty, often compel nurses to remain in their roles despite adverse circumstances. For example, Elnakib et al. (2021) and Parray et al. (2021) reported that many nurses in Afghanistan and Yemen continued to serve in conflict zones due to their commitment to supporting their communities, even when faced with significant personal safety risks. On the other hand, extrinsic factors, such as job satisfaction, working conditions, and financial incentives, have been consistently highlighted as critical determinants of nurse retention. Studies have shown that improving working conditions and implementing effective reward systems can positively influence nurses' decisions to stay in challenging environments.

For instance, Lee & Lee (2022) found that job satisfaction and supportive workplace environments significantly contributed to nurse retention, even in high-pressure settings. Similarly, Kamsalem et al. (2022) emphasized the role of employee engagement and adequate compensation in retaining nurses, particularly in conflict-prone zones. These findings are echoed in research conducted in low- and middle-income countries, where systemic issues such as resource shortages and limited financial incentives have a significant impact on retention.

In Indonesia, Kurniati et al. (2024) highlighted that nurses working in remote and conflict-affected areas often face poor infrastructure, inadequate supplies, and low wages. These challenges are compounded by the lack of career development opportunities and limited access to professional training, leading to decreased morale and retention rates (Shiri et al., 2023). Similarly, studies in Zambia and Nigeria have revealed that both financial and non-financial incentives are essential for retaining healthcare workers in conflict zones, (Okoroafor et al., 2021; Prust et al., 2019). Beyond financial considerations, nurses in conflict zones also face psychological challenges that impact their retention. High levels of stress, burnout, and emotional exhaustion are common among healthcare workers in these settings. For example, Witter et al. (2017) found that nurses in countries like Uganda, Sierra Leone, and Cambodia often experience severe hardships due to the constant exposure to violence and instability. While many nurses rely on intrinsic motivators, such as resilience and a sense of purpose, the lack of mental health support and coping mechanisms further exacerbates their stress levels (Healy & McKay, 2000).

Additionally, gender-specific challenges often arise in conflict zones, particularly in countries with entrenched cultural or societal barriers. In Afghanistan, female healthcare workers face unique challenges, such as restrictions on mobility and societal stigma, which further hinder their ability to work effectively in these regions (Barati et al., 2023). Addressing these gender-based barriers requires tailored interventions that provide targeted support and ensure equal opportunities for all healthcare workers (Stanford, 2020). Given the multifaceted challenges faced by nurses in conflict zones, comprehensive strategies are essential to improve retention. Evidence suggests that a combination of financial incentives, supportive workplace policies, and psychological support systems can significantly enhance retention rates, (Al-Qathmi & Zedan, 2021; Hallett et al., 2024). Moreover, resilience-building programs and targeted training initiatives can help nurses adapt to the unique demands of working in conflict-prone environments.

Systematic reviews, such as those conducted by Pressley & Garside (2023), have identified effective interventions that address both individual and systemic factors influencing nurse retention. These include policies that prioritize staff well-being, improve workplace safety, and provide career development opportunities (Halliday et al., 2024). By implementing these strategies, healthcare systems in conflict zones can ensure the sustainability of their workforce and enhance the quality of care delivered to vulnerable populations (Bogale et al., 2024). This systematic review aims to synthesize existing evidence on the factors influencing nurse retention in conflict zones. By identifying key themes and challenges, this study proposes evidence-based interventions for conflict-affected regions to help develop sustainable healthcare systems that withstand conflict and deliver effective care.

METHOD

This study employs a systematic review design. The articles included in this research were published between 2018 and 2024. The literature search was conducted following the

principles outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. The literature search for this systematic review was conducted in November 2024, focusing on identifying the most relevant and up-to-date evidence related to nurse retention in conflict zones. The search utilized four databases: Scopus, PubMed, Web of Science, and CINAHL. The strategy was developed using Medical Subject Headings (MeSH) and specific keywords, including: "Nurse Retention" OR "Retention of Nurses" OR "Nurse Workforce Retention" AND "Conflict Zones" OR "War Zones" OR "Conflict-Affected Areas" OR "Crisis Regions" AND "Motivation" OR "Intrinsic Motivation" OR "Extrinsic Motivation" AND "Work Environment" OR "Working Conditions" OR "Job Satisfaction" AND "Challenges" OR "Barriers" OR "Risks" OR "Incentives" OR "Interventions." Boolean operators (AND, OR) and wildcard characters were applied to refine the search and include variations in terminology. Articles were included based on their relevance to the research theme, their publication in English, and their focus on nurse retention in conflict zones. Only peer-reviewed articles published up to November 2024 were considered.

To select articles to be analyzed, the author used the PICOS framework (Figure 1). The PICOS framework (Population, Issue of Interest, Comparison, Outcome, Study Design) offers a systematic approach for performing literature searches aimed at identifying studies that explore factors influencing nurse retention in conflict zones. The population of the articles consists of nurses working in conflict zones, regardless of demographic factors such as age, gender, or years of experience. The issue of interest focuses on identifying factors influencing nurse retention, including both intrinsic factors (e.g., motivation, job satisfaction) and extrinsic factors (e.g., working conditions, financial incentives, and safety concerns). For comparison, studies that assessed nurse retention in conflict zones versus non-conflict zones or evaluated interventions aimed at improving retention were included. The outcome of interest was the retention rate or the identification of key factors influencing nurse retention. Eligible study designs include observational studies (e.g., cohort, cross-sectional, case-control) and qualitative research. Articles must be published in English, and only studies focusing on retention in conflict zones were eligible.

The exclusion criteria were as follows: articles that did not directly address nurse retention in conflict zones, those that focused on non-conflict zones, or those with incomplete or inaccessible data. Systematic reviews, commentaries, editorials, abstracts only, case reports, case series, meta-analyses, conference proceedings, and discussion papers were excluded from the review. The data collection process began with a literature search in several relevant databases (Scopus, Web of Science, ProQuest, PubMed, CINAHL). After the removal of duplicate records (n=17), the remaining 317 records were screened, and 160 records were reviewed for relevance. A total of 86 titles were selected for abstract screening, resulting in 41 abstracts eligible for full-text review. After assessing the full-text articles, 28 were excluded for reasons including non-original articles (n=10), irrelevant outcomes (n=7), or inaccessibility (n=9), not zone conflict (n=2). In total, 13 studies were included in the systematic review.

Each article was independently reviewed by the researchers according to the inclusion and exclusion criteria. Disagreements were resolved through consultation with a third reviewer. The relevant data were extracted, focusing on the factors influencing nurse retention in conflict zones. The PICOS framework guided the organization of data into a table that categorized the population, outcomes, comparisons, and study design. Any discrepancies were discussed and resolved to ensure the accuracy and consistency of the data. The chosen articles were sourced from a review of the most recent literature available in academic databases such

as Scopus, Web of Science, ProQuest, PubMed, and CINAHL. Selection was based on the relevance of the topics, specifically focusing on factors influencing nurse retention in conflict zones, and the availability of full-text access. An initial screening process involved reviewing titles and abstracts to assess their appropriateness for the subject of nurse retention in conflict settings. Articles meeting the inclusion criteria were then thoroughly examined to verify their relevance, validity, and alignment with the study’s objectives before proceeding with further analysis. This process led to the inclusion of 13 studies, which were analyzed in detail for key factors influencing nurse retention in conflict zones.

The data extraction process followed a structured approach to ensure the selection of relevant studies. Articles were sourced from five major databases: Scopus, Web of Science, ProQuest, PubMed, and CINAHL. The initial search results underwent deduplication and screening to remove duplicate records, entries marked as ineligible by automated tools, and records excluded for other reasons. The screening process involved reviewing titles and abstracts to identify studies aligned with the inclusion criteria. Articles that did not focus on the population, intervention, or outcomes of interest were excluded during this phase. Eligible studies proceeded to full-text screening, where articles were further assessed for relevance and quality. Exclusions at this stage were due to reasons such as being review articles, lacking relevant outcomes, limited access, or not addressing conflict zone contexts. In the final stage, studies that met the criteria were included in the review. The entire selection process was systematically documented, as shown in Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram, to ensure transparency and rigor in the review methodology.

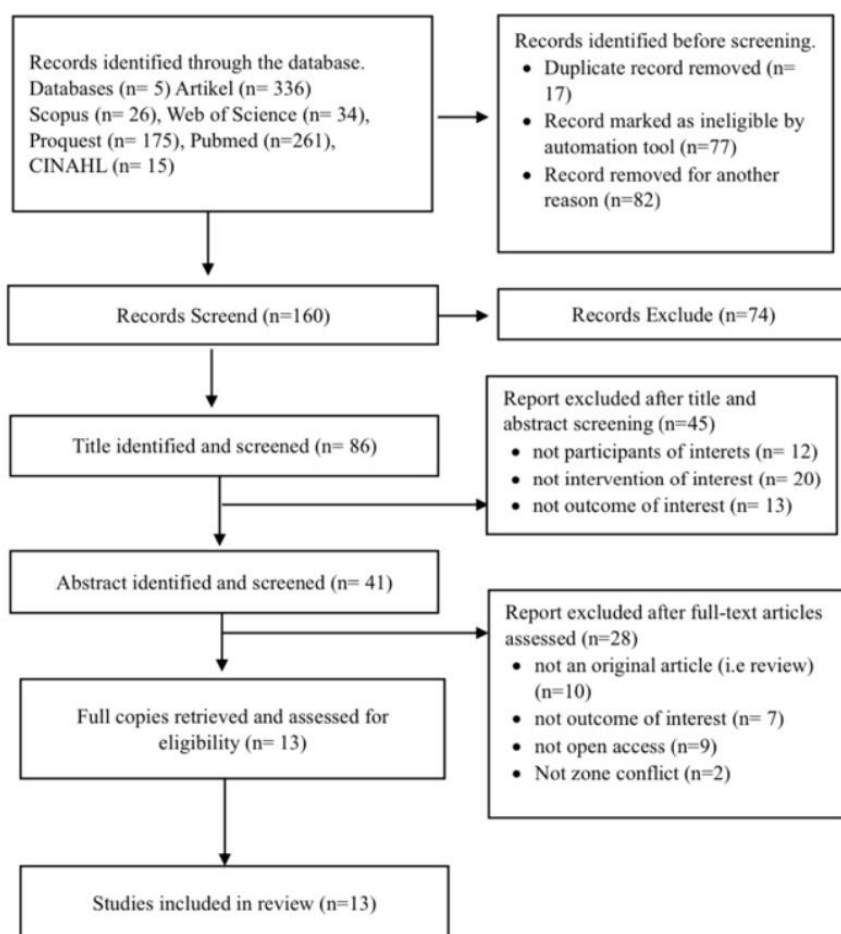


Fig. 1. Prisma flow diagram regarding study selection process.

The quality of all selected articles was assessed using tools provided by the Joanna Briggs Institute (JBI) to ensure methodological rigor and minimize the risk of bias. The assessment was conducted independently by researchers who evaluated each article based on its study design, outcome relevance, and adherence to inclusion criteria. The JBI checklists, tailored for both qualitative and quantitative research designs, were employed to evaluate specific methodological aspects. The quality of the articles was categorized based on their scores. Articles scoring above 75% were classified as High Quality, indicating strong methodological rigor and minimal bias. Articles scoring between 49% and 74% were classified as Moderate Quality, reflecting the presence of some methodological limitations but still providing valuable insights. Articles scoring below 49% were classified as Low Quality and excluded from the analysis. Only studies meeting the inclusion criteria, defined as having a quality score above 75%, were included in the systematic review. This approach ensured that the analysis was grounded in reliable and scientifically robust evidence, thereby strengthening the credibility and validity of the findings.

The data analysis for this review utilized a descriptive methodology to summarize and interpret the factors influencing nurse retention in conflict zones. Each article selected for the systematic review was carefully examined to identify key findings related to the factors that impact nurse retention. The analysis focused on categorizing and synthesizing these findings based on the intrinsic and extrinsic factors identified in the articles. These factors included motivation, job satisfaction, working conditions, financial incentives, and safety concerns. The data was organized and presented systematically to highlight the most common themes and trends across the studies. A summary of the findings was then provided, with an emphasis on identifying the factors that had the greatest influence on nurse retention in conflict zones. The analysis also included a discussion on the effectiveness of various interventions aimed at improving retention, based on the evidence from the selected studies. This approach allowed for a comprehensive understanding of the current state of nurse retention in conflict zones and provided recommendations for future interventions and research.

RESULTS

Thirteen articles met the inclusion criteria after being evaluated for quality using the JBI Critical Appraisal Tool. These articles were carefully reviewed and analyzed to identify factors influencing healthcare worker retention, particularly in rural and conflict-affected settings. The studies included both qualitative and quantitative research designs, offering diverse perspectives on the issue. The results of the literature search, following analysis and review, are as follows.

Tabel 2.
Literatur Search Results

Author/Year & Country	Study Design, Methodology, and Sample Characteristics	Type of conflict	Findings, Themes, and Recommendations
(Arage et al., 2023), Ethiopia	Quantitative (Interviews, FGDs), 100 participants, mean age 36 years	Quantitative (Interviews, FGDs), 100 participants, mean age 36 years	Findings: Severe impacts on population health, shortages of medical supplies, and system breakdowns. Themes: Health system strain, resource scarcity, coping mechanisms. Recommendations: Rehabilitation interventions for infrastructure, support for health workers. Further research needed on long-term impacts
(Mani et al., 2024), Saudi Arabia- Yemen	Quantitative (Semi-structured interviews), 23 participant	Quantitative (Semi-structured interviews), 23	Findings: Emergency nurse roles and preparedness needs identified; triage and mass casualty management are critical areas.

Author/Year & Country	Study Design, Methodology, and Sample Characteristics	Type of conflict	Findings, Themes, and Recommendations
		participant	Themes: Training, adaptability. Recommendations: Develop tailored training programs. Evaluate training effectiveness in real-time conflict scenarios.
(Segev, 2023), Israel	Qualitative (In-depth interviews), 22 participants, mean age 69 years	Qualitative (In-depth interviews), 22 participants, mean age 69 years	Findings: Long-term emotional, psychological, and organizational impacts; prevalence of PTSD and need for professional recognition. Themes: Coping strategies, need for recognition. Recommendations: Provide mental health support, enhance training, and retention rates. Explore post-deployment impacts.
(Legesse et al., 2024), Northern Ethiopia	Qualitative Phenomenological Study, In-depth interviews with 20 healthcare providers (5 groups: senior practitioners, residents, interns, nurses, midwives)	Tigray war (siege, armed conflict)	Findings: Severe resource shortages (food, medication, supplies), staff attrition, psychological impacts, and hazardous improvisations. Themes: Effects of siege on service delivery, survival threats, physical/mental well-being, and motivation. Recommendations: Implement humanitarian support, address psychological and social needs, and restore basic infrastructure and healthcare resources during and after the conflict.
(Lee & Lee, 2022), South Korea	Quantitative (Survey), 150 participants, ages 30–40	Social conflict: Workplace bullying, lack of support	Findings: Job satisfaction and working conditions identified as critical for retention. Themes: Job satisfaction, working conditions. Recommendations: Improve working conditions and organizational support systems. More qualitative insights needed.
(Kamselem et al., 2022), Malaysia	Mixed-method (Surveys and interviews), 120 participants, ages 27–50	Social conflict: Conflicts in reward systems and job conditions.	Findings: Reward systems and job conditions significantly influence retention. Themes: Reward systems, job conditions. Recommendations: Enhance reward systems and improve job conditions. More data needed on engagement-retention relationships.
(Witter et al., 2017), Uganda, Sierra Leone, Zimbabwe	Qualitative (Focus groups), 200 participants, ages 28–45	Armed conflict: Impact of conflict on fragile healthcare systems	Findings: Health workers cope through resilience and adaptation strategies. Themes: Resilience, coping strategies. Recommendations: Provide resilience training and support for health workers. Further exploration needed on coping mechanisms.
(Parray et al., 2021), Afghanistan	Qualitative (Interviews), 50 participants, ages 25–40	Armed conflict: War-related challenges and safety issues	Findings: Female community health workers face unique challenges in conflict zones. Themes: Gender-specific challenges. Recommendations: Support gender-specific programs for health workers. Research the impact of gender on retention.
(Elnakib et al., 2021), Yemen	Qualitative (Interviews), 70 participants, ages 30–55	Armed conflict: Effects of Yemen war on health workers	Findings: High stress and burnout among health workers due to conflict impacts. Themes: Stress, burnout. Recommendations: Implement mental health initiatives. Investigate long-term conflict effects on retention.
(Han et al., 2024), Shanghai	Qualitative (Interviews), 80 participants, ages 25–30	Social conflict: Stressful emergency department	Findings: Challenges faced by newly graduated nurses in emergency training. Themes: Training challenges. Recommendations: Enhance training programs for new nurses.

Author/Year & Country	Study Design, Methodology, and Sample Characteristics	Type of conflict	Findings, Themes, and Recommendations
		environment	Explore retention trends for newly graduated nurses.
(Altare et al., 2021), Democratic Republic of the Congo	Mixed-method (Surveys and interviews), participants, ages 28–50	Armed and social conflict: Insecurity and violence	Findings: System response strategies are crucial for health service delivery. Themes: System response strategies. Recommendations: Strengthen health system responses in conflict zones. Investigate system response effectiveness.
(Campbell et al., 2020), Canada	Qualitative (Interviews), participants, ages 24–42	Social conflict: Recruitment and retention challenges	Findings: Recruitment and retention issues are prevalent in community health settings. Themes: Recruitment, retention. Recommendations: Address recruitment and retention challenges. Research innovative recruitment strategies.

Population Characteristics

The included studies span a wide range of geographical locations, including Ethiopia, Saudi Arabia, Israel, South Korea, Malaysia, Uganda, Afghanistan, Yemen, the Democratic Republic of Congo, and Canada. The populations analyzed comprised healthcare workers, primarily nurses, with sample sizes ranging from 20 to 200 participants. The age range of participants varied from 24 to 69 years, reflecting diverse demographic and professional profiles. Studies such as those by Han et al. (2024) emphasized newly graduated nurses navigating early career challenges, while others, like Legesse et al. (2024), included experienced professionals such as senior practitioners, residents, and midwives. These variations highlight the broad spectrum of experiences faced by healthcare workers in both rural and conflict-affected areas.

Conflict Characteristics

The studies highlighted multiple types of conflict impacting healthcare systems and workers. Armed conflicts were the most frequently reported, as seen in Ethiopia (Legesse et al., 2024), Yemen (Elnakib et al., 2021), Afghanistan (Parray et al., 2021), and the Democratic Republic of Congo (Altare et al., 2021). These conflicts often resulted in systemic breakdowns, resource shortages, staff attrition, and heightened safety risks for healthcare workers. Social conflicts also emerged as significant in studies from South Korea, Malaysia, and Canada, focusing on issues such as workplace bullying, inadequate reward systems, and recruitment challenges (Campbell, van Borek, et al., 2020; Kamselem et al., 2022; Lee & Lee, 2022). Additionally, gender-based challenges, as identified in Afghanistan, highlighted the unique barriers faced by female healthcare workers in navigating cultural and safety-related obstacles (Parray et al., 2021). The studies illustrate the complex and multifaceted nature of conflicts, encompassing not only violence and instability but also organizational and social challenges.

Outcome Findings

The outcome findings across the studies reveal several key factors influencing healthcare worker retention in conflict-affected settings. Job satisfaction, adequate compensation, and favorable working conditions were consistently identified as critical for retention (Kamselem et al., 2022; Lee and Lee, 2022). The studies highlighted the need for effective reward systems and non-financial incentives to enhance retention in both conflict and non-conflict zones. Mental health challenges, including stress and burnout, were prominent issues among healthcare workers in conflict zones, as seen in Yemen and Ethiopia. These challenges were exacerbated by prolonged exposure to violence and resource shortages, leading to calls for

mental health support programs and resilience training (Elnakib et al., 2021; Legesse et al., 2024). Additionally, gender-specific barriers, particularly in Afghanistan, underscored the need for gender-sensitive policies to address the unique challenges faced by female healthcare workers (Parray et al., 2021). Systemic responses and leadership support were also emphasized as essential for addressing retention issues. Studies from Uganda and the Democratic Republic of Congo highlighted the importance of strengthening healthcare systems and providing robust support structures in fragile and conflict-affected regions (Witter et al., 2017; Altare et al., 2021, 2024). Moreover, training programs for newly graduated nurses, particularly in emergency departments, were identified as a key strategy for improving retention and professional adaptation (Han et al., 2024). Lastly, the findings emphasize the critical role of coping mechanisms and community solidarity in retaining healthcare workers under challenging circumstances. Resilience-building, psychological support, and structured mentorship programs were recommended to improve both retention rates and healthcare delivery outcomes (Campbell, van Borek, et al., 2020; Witter et al., 2017). These findings highlight the need for comprehensive, context-specific interventions that address both personal and systemic challenges faced by healthcare workers in conflict zones.

DISCUSSION

This systematic review investigates the factors influencing nurse retention in conflict-affected areas, revealing both shared and context-specific challenges across diverse geographical and socio-political settings. The findings highlight the complexity of the issue and the need for multifaceted approaches to address workforce stability in such critical environments. A prominent theme across the studies is the importance of job satisfaction in retaining nurses. Consistently, studies from South Korea and Malaysia demonstrated that workplace conditions, along with financial and non-financial incentives, play a crucial role in enhancing retention rates (Kamselem et al., 2022; Lee and Lee, 2022). Similarly, mental health challenges, particularly stress and burnout, were universally reported in conflict settings. For instance, healthcare workers in Yemen and Ethiopia faced severe psychological strain due to prolonged exposure to violence, resource shortages, and systemic instability (Elnakib et al., 2021; Legesse et al., 2024). These findings underscore the global relevance of addressing job satisfaction and mental health in improving nurse retention, regardless of the specific conflict context.

Resilience and coping mechanisms also emerged as vital factors for nurses working in conflict zones. Studies from Ethiopia and the Democratic Republic of Congo highlighted the importance of community solidarity and adaptability in enabling healthcare workers to navigate resource-constrained environments (Witter et al., 2017; Legesse et al., 2024). These findings emphasize the need for resilience-building interventions and support systems tailored to the unique demands of conflict-affected settings. Despite these shared challenges, the review identified important contextual differences. In Afghanistan, gender-specific barriers emerged as a significant factor influencing nurse retention, particularly for female healthcare workers. Cultural restrictions, safety concerns, and a lack of gender-sensitive policies created unique challenges for women navigating the healthcare sector in conflict zones (Parray et al., 2021). This finding underscores the importance of understanding how sociocultural norms intersect with conflict-related challenges to shape workforce experiences.

In non-conflict settings, organizational dynamics such as workplace bullying, inadequate recruitment strategies, and a lack of effective reward systems were more prominent retention challenges. Studies from South Korea and Canada highlighted these issues, suggesting that even in stable environments, interpersonal and organizational factors can substantially impact

stability (Campbell, van Borek, et al., 2020; Lee & Lee, 2022). These findings contrast with those from fragile healthcare systems, such as in Ethiopia and the Democratic Republic of Congo, where systemic breakdowns and resource limitations were the dominant challenges (Altare et al., 2021; Legesse et al., 2024). Furthermore, differences in intervention focus were noted across regions. In conflict-affected low-income countries, strengthening healthcare systems and providing robust leadership support were emphasized as key strategies to address retention issues. Conversely, in high-income countries like Canada and South Korea, structured mentorship and training programs for newly graduated nurses were identified as critical to improving retention and professional development (Han et al., 2024). These differences reflect the varying priorities and challenges faced by healthcare systems depending on their level of development and stability.

The trends observed in this review can be attributed to the broader socio-political and economic contexts of the studied regions. In conflict zones, systemic breakdowns, safety risks, and resource shortages often exacerbate workforce attrition, as seen in Ethiopia and Yemen. In Afghanistan, the additional layer of cultural and gender-based restrictions further highlights the complexity of retention challenges for female healthcare workers. Conversely, in non-conflict settings, stable healthcare systems allow organizational and interpersonal factors, such as workplace satisfaction and career development, to take precedence. To address these challenges effectively, future research should focus on evaluating the long-term impact of interventions aimed at improving nurse retention in conflict-affected areas. Specifically, studies should investigate the effectiveness of mental health support programs, resilience-building initiatives, and the implementation of gender-sensitive policies tailored to local contexts. Comparative research examining the differences in retention strategies between conflict and non-conflict settings would also provide valuable insights into context-specific solutions.

This review highlights the complex and multifaceted challenges influencing nurse retention in conflict-affected areas. While universal factors, such as job satisfaction, mental health support, and resilience, are critical, localized solutions are necessary to address unique challenges such as gender-specific barriers and systemic deficiencies. A comprehensive approach that integrates financial, psychological, and organizational support is essential to enhance workforce stability in these critical settings. Collaborative efforts among policymakers, healthcare institutions, and researchers are vital to develop sustainable strategies for retaining healthcare workers in both conflict and non-conflict regions.

CONCLUSION

This systematic review highlights the critical factors influencing nurse retention in conflict zones, providing insights into the intrinsic and extrinsic determinants of workforce sustainability. Key factors identified include job satisfaction, adequate compensation, safety measures, emotional resilience, and supportive work environments. Gender-specific challenges and the impact of armed, political, and socioeconomic conflicts were also emphasized. The findings underline the need for tailored policies, robust mental health support systems, and strategic interventions to retain healthcare workers in these high-risk settings. Addressing these multifaceted challenges requires a comprehensive approach that combines organizational support, financial incentives, and emotional well-being strategies. Future research should focus on longitudinal studies to assess the long-term effectiveness of these interventions and explore their impact on healthcare delivery outcomes in conflict zones.

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