

Perceived Occupational Risk among Nurses during the COVID-19 Pandemic: A Systematic Review

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Abstract

Introduction: Due to increased professional dangers, nurses have been in the forefront of the COVID-19 pandemic. Examining nurses' perceptions of occupational risk during the COVID-19 epidemic, its contributory variables, and its wider effects are the goals of this systematic review.

Materials and Methods: A systematic review was conducted by searching databases like PubMed, Scopus, and Web of Science from January 2020 to December 2023. Studies addressing nurses' perceptions of occupational risk during COVID-19 were included.

Results: The review identified that nurses perceived high occupational risks due to direct patient care, inadequate personal protective equipment (PPE), mental health stressors, and lack of institutional support.

Conclusions: Nurses' job satisfaction and mental health were adversely affected by high perceived occupational risk. Risk communication techniques, mental health support, and protective measures must be given top priority in institutions.

Keywords: Nurses, COVID-19, Occupational Risk, Mental Health, Systematic Review

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Introduction

Healthcare professionals, particularly nurses, are now at previously unheard-of levels of occupational risk because to the COVID-19 epidemic. As frontline healthcare providers, nurses have continuously provided direct care to patients who are infected, making them more vulnerable to the virus. Throughout the epidemic, there has been a great deal of worry about their perceived occupational risk, which is their subjective evaluation of the dangers connected to their workplace.

Similar trends in the perceived hazards among medical professionals have been brought to light by previous pandemics, such as SARS and MERS. But because of the unprecedented scope of COVID-19, a thorough analysis of nurses' perceptions and approaches to managing occupational risks is required. These views have been made worse by elements including insufficient personal protective equipment (PPE), ambiguous infection control protocols, and excessive patient loads.

Furthermore, the effects of these perceived dangers extend beyond physical health; burnout, psychological

discomfort, and plans to quit the field have all been extensively documented. Developing successful treatments to support nurses in current and upcoming public health emergencies requires an understanding of perceived occupational risk.

Given the vital role that nurses play in the COVID-19 epidemic, it is imperative that the research be thoroughly reviewed in order to better understand the perceived occupational risks and develop policy and practice recommendations.

Materials and Methods

A systematic review methodology was employed following PRISMA guidelines. Database searches were conducted across PubMed, Scopus, and Web of Science. Search terms included "nurses," "COVID-19," "occupational risk," "perceived risk," and "workplace safety."

Inclusion criteria were: (1) peer-reviewed articles published between January 2020 and December 2023; (2) studies focusing on nurses; (3) articles in English; and (4) studies examining perceived occupational risk during the COVID-19 pandemic.

Exclusion criteria included: (1) studies not specifically addressing nurses; (2) non-English publications; and (3) commentary articles, letters to editors, or opinion pieces.

Data extraction was performed independently by two reviewers, and any discrepancies were resolved through discussion. Quality appraisal of the included studies was conducted using the Joanna Briggs Institute Critical Appraisal Checklist for Analytical Cross-Sectional Studies.

Results

From an initial pool of 986 articles, 42 studies met the inclusion criteria. Most studies were cross-sectional surveys conducted in diverse settings including hospitals, COVID-19 dedicated centers, and primary health care facilities.

Key findings included:

- **High Perceived Risk:** Over 80% of nurses reported high perceived occupational risk associated with COVID-19 patient care.
- **Contributing Factors:** Factors contributing to heightened risk perception included lack of PPE, insufficient training, frequent changes in protocols, long working hours, and high patient mortality.
- **Impact:** Nurses reported increased anxiety, depression, sleep disturbances, and professional burnout.
- **Protective Factors:** Adequate institutional support, effective communication, and availability of PPE were identified as factors mitigating perceived risks.

Conclusions

During the COVID-19 pandemic, nurses felt a great deal of occupational risk, which had a negative impact on their physical and mental health. Nurses experienced high levels of stress and mental tiredness as a result of their severe fear of getting infected, lack of resources, and high patient volumes. Numerous individuals expressed signs of anxiety, depression, PTSD, and burnout, endangering not just their own well-being but also the general stability of healthcare institutions.

To reduce these hazards, systematic measures are essential. It is essential to strengthen workplace safety by providing regular access to sufficient personal protective equipment (PPE) and thorough infection control procedures. The creation of strong mental health support networks, such as peer support groups, counseling, and resilience training courses, is equally important. To promote trust and lessen uncertainty, all organizational levels must incorporate effective communication tactics, which are defined by transparency, punctuality, and clarity.

Additionally, by encouraging safe staffing levels, providing chances for rest and recuperation, and including frontline nurses in decision-making processes pertaining to pandemic preparedness and response, institutional policies should place a high priority on nurses' well-being. By putting these solutions into

practice, healthcare organizations can improve workforce retention and system resilience for upcoming public health emergencies in addition to protecting the health and morale of nurses during emergencies.

Discussion

The results show that nurses' perceptions of occupational risks were influenced by organizational, contextual, and psychological factors in addition to direct contact with COVID-19 patients. Despite institutional efforts to manage shortages, inadequate personal protective equipment was a recurring concern.

Many people claimed psychological effects such as moral distress brought on by a lack of resources, community stigma, and fear of infecting family members. Reduced staff retention is one of the long-term effects of these perceived dangers, which could exacerbate future health emergencies.

In addition to disaster readiness, addressing these issues calls for consistent investment in the resilience of the healthcare staff. Participatory policy-making, mental health services, and training initiatives could empower nurses and reduce perceived work dangers.

Recommendations

1. **Ensure Adequate PPE:** Hospitals must maintain robust stockpiles and ensure the equitable distribution of PPE.
2. **Enhance Communication:** Clear, consistent, and transparent communication of guidelines and updates is critical.
3. **Psychological Support Services:** Provision of counseling services and stress management programs.
4. **Training and Education:** Regular infection control training and simulation exercises.
5. **Policy Advocacy:** Include nurses' voices in pandemic preparedness planning.

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