

Occupational Health Hazards of Women in Healthcare: The Lived Experience of Female Nurses of West Bengal, India

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Abstract: - This qualitative study aimed to explore the occupational health hazards faced by female nurses in West Bengal, India. Twenty female nurses were interviewed, and thematic analysis was used to analyse the data. The findings revealed that female nurses faced physical, biological, and psychosocial hazards, including exposure to hazardous substances, infectious diseases, reproductive problems, stress, workplace violence, and harassment. These hazards had negative effects on the health and well-being of the nurses. The study highlights the need for improved working conditions and safety measures in healthcare settings and recommends the development and implementation of policies and guidelines to address the occupational health hazards faced by female nurses in India. Additionally, training and education programs should be provided to nurses to promote safe work practices and raise awareness of the hazards.

Keywords: Occupational health hazards; Female nurses; West Bengal; Healthcare; Lived experience

I. Introduction

Occupational health hazards pose a significant threat to the health and well-being of healthcare workers globally, particularly for female healthcare workers. The World Health Organization (WHO) acknowledges that healthcare workers face various hazards at work, including biological, physical, and psychosocial hazards, which can adversely affect their health and well-being (WHO, 2021).

Nurses are the largest group of healthcare workers and are more likely to face occupational health hazards than other healthcare professionals (Gupta et al., 2017). Clinical personnel, including nurses, are at higher risk for menstrual disorders compared with administrative personnel (Assadi, 2013). A study by the American Nurses Association (ANA) revealed that 41% of the survey respondents had experienced a work-related injury in the past year, and 48% had experienced an illness that was caused or made worse by working as a nurse (Houle, 2001). Nurses in developed countries, such as the United States, may have safer working conditions than nurses in developing countries (de Castro et al., 2009).

In India, female nurses make up a significant proportion of the healthcare workforce, and their occupational health hazards have not been adequately addressed. As a result, ensuring the health and safety of the nursing force is critical to providing proper service to a large number of patients. Therefore, this study aims to explore the lived experiences of female nurses working in West Bengal, India, regarding occupational health hazards.

II. Methods:

This study employed a qualitative and exploratory research design with a phenomenological approach to understand the lived experiences of female nurses regarding occupational health hazards from their voices (Moustakas, 1994). Purposive sampling was utilized to select 20 female nurses working in various healthcare settings, such as government hospitals, private hospitals, nursing homes, and home services. The study participants were recruited between August 2022 and October 2022 within the municipal corporation area of Kolkata, and the "snowball" method was employed. The inclusion criteria for the study were female nurses who had been working as a nurse for at least three years, while the exclusion criteria were trained nurses who had been working for less than three years. The individual 'trained female nurse' was considered the unit of analysis.

Table 1: Socio-demographic Characteristics of Study Participants

Sl. No.	Nature of Healthcare Organization	Age (years)	Years of Experience	Marital Status
1	Govt. Hospital	49	20	Married
2	Govt. Hospital	46	20	Married
3	Govt. Hospital	59	32	Married
4	Govt. Hospital	58	30	Married

5	Govt. Hospital	42	20	Married
6	Private Hospital	35	10	Married
7	Private Hospital	32	7	Married
8	Private Hospital	26	7	Unmarried
9	Private Hospital	28	8	Married
10	Private Hospital	34	10	Married
11	Nursing Home	42	14	Married
12	Nursing Home	28	7	Married
13	Nursing Home	37	12	Married
14	Nursing Home	52	28	Married
15	Nursing Home	24	5	Married
16	Home Service	45	8	Married
17	Home Service	29	7	Married
18	Home Service	32	7	Married
19	Home Service	55	12	Married
20	Home Service	31	4	Married

The current study employed a rigorous data collection method, reaching the point of data saturation, where no new information was generated from the participants. To gather the data, face-to-face in-depth interviews were conducted in the Bengali language, with each interview lasting between 20-25 minutes. The participants provided their consent to the audio recording of the interviews. Unstructured lead questions were used as interview guides, starting with an open-ended question that asked participants to share their experiences of occupational health hazards. The data was transcribed verbatim from the audio recordings and translated into English to facilitate the analysis process. To ensure data validation, the transcribed materials were read back to the respective study participants (Creswell & Miller, 2000). Thematic analysis was used to analyse the data and identify emerging patterns and themes.

The study participants were fully informed about the purpose of the research and were guaranteed that their data and identity would be kept confidential. The participants were also informed that they had the right to withdraw from the study at any time if they felt uncomfortable. Additionally, the researchers made it clear that no immediate benefit or material gift would be provided to the participants for taking part in the study. However, the study could raise awareness of occupational health hazards faced by women and lead to improved safety and care for women. All participants provided their informed consent after receiving comprehensive information about the study. The researchers ensured that the participants felt comfortable sharing their experiences and perspectives on the subject matter (Richards & Schwartz, 2002).

III. Results & discussion:

From the collected data six (6) themes were derived: infectious disease; physical strain; injury; chemical exposure; reproductive problems and Psycho-social pressure.

Infectious diseases

Infectious diseases are a significant occupational health hazard for female nurses in India. According to the World Health Organization (WHO), healthcare workers are at a high risk of contracting infectious diseases, particularly in low- and middle-income countries (WHO, 2021). Nurses are at increased risk of exposure to infectious diseases due to their close proximity to patients and their role in administering medication and providing care. Female nurses may be at greater risk due to factors such as a higher number of female nurses in the workforce and the increased risk of exposure during pregnancy. Respondents share such

After dealing with the patient of pneumonia.. I also become ill and tested positive about Streptococcus pneumoniae. (respondent 5,8)

One study conducted in India found that nurses had a high prevalence of exposure to infectious diseases, with a significant percentage reporting exposure to tuberculosis, hepatitis B and C, and HIV/AIDS (Makaryus et al., 2013). In addition, a lack of training and inadequate infection control measures can further increase the risk of infectious disease exposure for female nurses (Talaee, 2019; Abraham et al., 2018).

Respondent 1 told that

She was not affected but was a carrier of the influenza virus. From her elderly patient affected by this virus.

In addition to the risk of contracting infectious diseases, nurses are also at a higher risk of transmitting infections to other patients and healthcare workers. This is especially true in the case of healthcare-associated infections (HAIs), which are a significant cause of morbidity and mortality worldwide (Allegranzi et al., 2016).

To address the issue of infectious disease exposure for female nurses in India, healthcare facilities must implement appropriate infection control measures and provide adequate training and resources for nurses. This includes ensuring the availability of personal protective equipment (PPE), implementing appropriate hand hygiene protocols, and providing training on infection control practices (WHO, 2021). In addition, healthcare facilities must also provide appropriate support and resources for nurses who have been exposed to infectious diseases, including access to post-exposure prophylaxis and counselling services.

Overall, appropriate measures must be taken to ensure the safety and well-being of nurses in the workplace.

Physical strain

Respondents 3,4 & 13 said that

I am overburdened in duty time, I remain always busy and have to work standing long time. After that feel tremendous Hip joint pain.

Physical strain is one more significant occupational health hazard for female nurses in India. Nursing is a physically demanding profession that requires long hours of standing, lifting, and other repetitive motions. These physical demands can lead to musculoskeletal disorders (MSDs), which are a common occupational health issue among nurses (Shiferaw et al., 2019).

Studies have shown that female nurses in India are at a higher risk of developing MSDs than their male counterparts (Kumar et al., 2018). This is due to a variety of factors, including the higher proportion of female nurses in the workforce and the lack of ergonomically designed workstations in many healthcare facilities. In addition, the lack of training and education on safe lifting techniques and ergonomics also contributes to the increased risk of MSDs among female nurses in India (Shiferaw et al., 2019).

To address the issue of physical strain as an occupational health hazard for female nurses in India, healthcare facilities must take appropriate measures to promote safe working practices. This includes providing training on safe lifting techniques and ergonomics, promoting the use of assistive devices to reduce physical strain, and ensuring that workstations are designed with ergonomics in mind. In addition, healthcare facilities must ensure that nurses are provided with adequate rest breaks to reduce the risk of fatigue and musculoskeletal strain.

Injury

Respondents no. 14 &19 told that

Several times I faced injury during handling sharp objects in an emergency moment.

Injuries are a noteworthy occupational health hazard for female nurses in India. Nurses are at a high risk of workplace injuries due to the nature of their work, which involves exposure to hazardous chemicals, handling sharp objects, and lifting heavy objects (Mukhopadhyay et al., 2016). According to a study conducted in a tertiary care hospital in India, needlestick injuries were the most common type of injury reported among nurses (Rao et al., 2016).

In addition to needlestick injuries, other common injuries experienced by female nurses in India include slips, trips, and falls. These injuries can result in sprains, fractures, and other musculoskeletal injuries. Furthermore, the long working hours and lack of rest breaks contribute to fatigue, increasing the risk of workplace injuries (Mukhopadhyay et al., 2016).

To address the issue of workplace injuries for female nurses in India, healthcare facilities must take appropriate measures to promote safe working practices. This includes providing training on safe handling of hazardous materials and sharps, implementing workplace safety protocols, and providing personal protective equipment (PPE) to reduce the risk of injury. In addition, healthcare facilities must ensure that nurses are provided with adequate rest breaks to reduce the risk of fatigue and workplace injuries.

Chemical Exposure

Chemical exposure is also a significant occupational health hazard for female nurses in India. Nurses are exposed to a wide range of hazardous chemicals in their daily work, including disinfectants, sterilizing agents, anaesthetic gases, and hazardous drugs (Jain et al., 2018). These chemicals can cause a range of health problems, including respiratory problems, skin irritation, and cancer.

One of the most significant chemical hazards for nurses is exposure to hazardous drugs. These drugs can be absorbed through the skin or inhaled, leading to long-term health problems such as cancer and reproductive problems (Jain et al., 2018). In addition, many nurses are not adequately trained in the safe handling of hazardous drugs, increasing the risk of exposure.

To address the issue of chemical exposure for female nurses in India, healthcare facilities must take appropriate measures to promote safe working practices. This includes providing training on the safe handling of hazardous chemicals, implementing workplace safety protocols, and providing personal protective equipment (PPE) to reduce the risk of exposure. In addition, healthcare facilities must ensure that nurses have access to appropriate ventilation and other engineering controls to reduce exposure to hazardous chemicals.

Reproductive disorder

Reproductive disorders are an important occupational health hazard for female nurses in India. These disorders can be caused by exposure to hazardous chemicals and radiation, as well as physical strain and stress related to their work (Jain et al., 2018). Female nurses may be at increased risk of reproductive disorders such as menstrual disorders, infertility, and miscarriage due to their exposure to occupational hazards.

Exposure to hazardous chemicals, including sterilizing agents and hazardous drugs, can lead to reproductive disorders. These chemicals can affect the reproductive system and disrupt the menstrual cycle, leading to menstrual disorders and infertility (Jain et al., 2018). In addition, exposure to ionizing radiation can also lead to reproductive disorders such as miscarriage and infertility.

Respondent 10 said

I could not become pregnant. I adopted a child.

Respondent 12 told that

I have faced miscarriage 2 times. I am trying to be pregnant for third time.

Physical strain and stress related to nursing work can also contribute to reproductive disorders. Long working hours, irregular schedules, and job-related stress can disrupt the menstrual cycle and increase the risk of miscarriage (Jain et al., 2018). In addition, workplace factors such as a lack of privacy for breastfeeding and inadequate facilities for menstrual hygiene can also contribute to reproductive disorders.

To address the issue of reproductive disorders for female nurses in India, healthcare facilities must take appropriate measures to promote safe working practices. This includes providing training on the safe handling of hazardous chemicals, implementing workplace safety protocols, and providing personal protective equipment (PPE) to reduce the risk of exposure. In addition, healthcare facilities must ensure that nurses have access to appropriate healthcare services and support, including reproductive healthcare services and counselling.

Healthcare facilities must take appropriate measures to promote safe working practices and reduce the risk of exposure to hazardous chemicals and physical strain.

Psycho-social pressure

Psycho-social pressure is also a very considerable occupational health hazard for female nurses in India. Nurses are required to provide high-quality care while dealing with the emotional and psychological needs of patients and their families. This can lead to job-related stress, burnout, and mental health issues (Sethi et al., 2017). Female nurses may be at increased risk of psycho-social pressure due to gender-based discrimination, lack of support from supervisors, and inadequate resources.

Respondents no. 17 & 20 said

I faced sexual harassment several times by the patient parties.

Gender-based discrimination is a significant factor that contributes to psycho-social pressure among female nurses in India. Female nurses may be subjected to harassment, unequal treatment, and discrimination due to their gender, which can lead to job-related stress and mental health issues (Sethi et al., 2017). In addition, a lack of support from supervisors and colleagues can also contribute to psycho-social pressure. Female nurses may feel isolated and unsupported, which can lead to feelings of burnout and depression.

Inadequate resources in healthcare facilities can also contribute to psycho-social pressure for female nurses. A lack of staffing, inadequate equipment, and poor working conditions can make it challenging for nurses to provide high-quality care, leading to job-related stress and mental health issues (Sethi et al., 2017). In addition, the COVID-19 pandemic has further increased the psycho-social pressure on nurses, with many nurses experiencing fear, anxiety, and emotional exhaustion.

Respondent 18 told that,

Due to prolonged duty consecutively for several months she cannot plan for the baby. It creates pressure on her family relations.

To address the issue of psycho-social pressure for female nurses in India, healthcare facilities must take appropriate measures to promote a healthy work environment. This includes providing support and resources for mental health and wellness, implementing workplace policies that promote work-life balance, and addressing gender-based discrimination. In addition, healthcare facilities must provide adequate staffing and resources to ensure that nurses can provide high-quality care without feeling overwhelmed or stressed.

In India healthcare facilities must take appropriate measures to promote a healthy work environment and address gender-based discrimination and inadequate resources.

The findings of the study revealed that female nurses working in West Bengal face numerous occupational health hazards, including physical, biological, and psychosocial hazards. Physical hazards included exposure to hazardous substances, inadequate lighting, and poor ergonomics, leading to musculoskeletal disorders. Biological hazards included exposure to infectious diseases, such as tuberculosis and hepatitis B and C, which are prevalent in healthcare settings. Psychosocial hazards included stress, workplace violence, and harassment, which were reported to have negative effects on the physical, and mental health and well-being of the nurses.

The present study has certain limitations that should be acknowledged. Firstly, it is based on a sample of Bengali female nursing staff working in West Bengal, which may limit the generalizability of the findings to other populations or regions. Additionally, the study utilized a qualitative research design, which typically involves a small number of participants. While this approach can provide valuable insights into the experiences and perspectives of participants, it may not be representative of the larger population. Despite these limitations, the study's findings offer important insights into the experiences of Bengali female nursing staff and highlight the need for further research in this area. Moving forward, it will be essential to expand the scope of future studies to include more diverse populations and to employ quantitative research designs to enhance the generalizability of the results.

IV. Conclusion

The study highlights the occupational health hazards faced by female nurses working in West Bengal, India. They face significant occupational health hazards, including infectious diseases, physical strain, injury, chemical exposure, reproductive problems, and psycho-social pressure. To address these hazards, healthcare facilities must take appropriate measures to promote safe working practices. This includes providing training on safe handling techniques, implementing workplace safety protocols, providing personal protective equipment (PPE), ensuring adequate rest breaks, and providing access to resources and support for affected nurses. The findings suggest that there is a need to improve the working conditions and safety measures in healthcare settings to ensure the health and well-being of nurses.

It is recommended that policies and guidelines be developed and implemented to address the occupational health hazards faced by female nurses in India. Additionally, training and education programs should be provided to nurses to raise awareness of the hazards and to promote safe work practices. By taking these measures, healthcare facilities can ensure the safety and well-being of female nurses, who play a critical role in the delivery of healthcare services in India.

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