

Risks and Safety of Women Healthcare Workers in Aizawl District, Mizoram, India

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ABSTRACT

Introduction: The women healthcare workers; besides their role in the promotion, prevention, and protection of health for their patients; are exposed to different types of occupational risks at the workplace. This study aimed to explore the types of occupational risks encountered by the women healthcare workers and assess the health and safety measures implemented for the women healthcare workers.

Methods: A cross-sectional study was conducted among one hundred women healthcare workers in Aizawl district, Mizoram, India. A self-structured questionnaire was used to collect data on the respondents' demographic profile, workplace risks, and safety measures. The Work Safety Scale was used to measure the safety measures and was reframed to suit the study's context.

Results: The results show that women healthcare workers experience a greater number of risks at the workplace such as physical (back pain, headache, eye problem, loss of appetite and needle syringe injuries) psychosocial (anxiety, insomnia, abuse by patients, low self-esteem and depression) and reproductive risks (irregular menstrual cycle, stillbirth, low birth weight and cervical cancer). The health and safety measures implemented for the healthcare workers are satisfied with an average mean score of 3.64. The study revealed that no clear regulations and recommendations on safety measures have been developed by healthcare settings.

Conclusion: The study concluded that better regulation is needed; required to protect and safeguard the physical, psychological, and reproductive risks that women healthcare professionals encounter at the workplace.

Key words: physical risks, psychosocial risks, reproductive risks, safety measures, women healthcare workers

INTRODUCTION

Women healthcare workers play a significant role in the promotion and prevention of health for the population, they provide services directly and indirectly as doctors, nurses and as nursing

assistance, laboratory technicians, physiotherapists, radiographers, community health workers, Accredited Social Health Activist (ASHA) workers and even medical waste handlers.^{1,2} Health setting is regarded as one of the most hazardous places and occurs in numbers of job-related injuries and infections among the workers. The International Labour Organization (ILO) reported that every 15seconds, 153 employees experience injuries related to work and premature mortality is increasing year by year as a result of occupational-related injuries.³

The health workers besides their role in the promotion and prevention in healthcare, are exposed to different types of occupational risks; occupational risks can be understood as risks, accidents and harms that individual experiences at the workplace.¹ Inappropriate

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safety precautions, unsafe and unhealthy environment and inappropriate disposal of bio-chemical waste are some of the factors responsible for workplace risks, absenteeism, lack of interest and unproductive job performances which are the negative impact of workplace risks.⁴ Health settings consist of various occupational risks such as, biological risks, chemical risks, physical risks, reproductive risks and psychosocial risks. Biological risks include infection from blood-borne viruses (HIV, Hepatitis), needle syringe injuries, cut and wounds, tuberculosis infections from tuberculosis-infected patients, etc.⁵ Prevention of biological risks includes safe handling of blood and equipment, safe disposal of biological equipment, proper use of personal protective equipment and immunization of the health workers.

Further, the chemical risks at the workplace are due to the exposure of anaesthetic gases, radiations and the disinfectant agents used for decontamination of equipment and these may affect the reproductive health of the women healthcare workers which develops the possibility of stillbirths, miscarriages, low birth weight, irregular periods, infertility and development disorder among the children. Physical risks are those which cause physical discomfort to the health workers such as bone fractures, muscles strains and accidental falls. Musculoskeletal problems are prevalent among health workers due to handling of patients, awkward positioning, relocating patients from beds, chairs, toilets for patient's diagnosis and therapy.⁶

Furthermore, the chance for the development of mental illness such as stress, anxiety and depression are higher among the health workers due to the result of their working conditions and work schedules.⁷ Therefore, the study tries to understand the risks and safety of women healthcare workers, who are working in the healthcare sectors of both private and public sectors.

METHODS

This is a descriptive study and the quantitative data was collected with the administration of self-structured questionnaires. The quantitative data was collected from the women healthcare worker both in public and private healthcare settings in Aizawl district, Mizoram, India. Mizoram is one of India's states and Aizawl as its capital. The study was conducted from June to November 2020.

The quantitative data was collected with the help of the Kobo Toolbox, an online open data kit website.⁸ The sample size was 100 individual women healthcare workers who were purposefully selected for the study and the sample selected for the study had a minimum of two years of work experience. The questionnaire was pre-tested to 10 respondents prior to the actual survey, a closed-ended question had been used and if required the respondents could select more than one response. The questionnaire consisted of the demographic profile of the respondents, hazards (physical, psychosocial and reproductive hazards) experienced by the respondents and the health safety measures in the workplace. Further, the data was analysed with the help of statistical package for social sciences version 26 and descriptive statistics were calculated such as percentage and mean.

To measure the health and safety of the women healthcare workers *Work Safety Scale (WSS)*, was utilized and a five-point rating scale was used for the WSS items (1= Strongly disagree, 2= Disagree, 3= Neither disagree nor agree, 4= Agree, 5= Strongly agree).⁹ There are five dimensions of WSS such as job safety, co-worker safety, supervisor safety, management safety practices and satisfaction with the safety practices and these dimensions are reframed to suit the context of the study which focused on job safety and management safety practices. The mean score of the two dimensions (job safety and management safety practices) was calculated in this study.

RESULTS

Out of the 100 women healthcare workers who participated in the study (figure 1), the majority of the respondents are medical workers (76%) followed by paramedical workers (24%) and private healthcare settings (62%) have contributed a greater number of respondents, followed by public healthcare settings (38%) and maximum respondents have work experience between 2-4 years (55%).

Figure 2 indicates the different hazards encountered by the women healthcare workers. Back pain (80%) has caused a maximum number of physical discomforts among the respondents, nearly half of the respondents had reported that anxiety (45%) has affected the psychosocial health and irregular menstrual cycle (40%) had caused a greater number of reproductive hazards among the respondents which were the result of constant physical activities at work and the

psychosocial hazards experienced at the workplace.

Table 1 represents health safety measures such as proper biomedical waste management, first aid in time of the accident, place of safety signage and warning signage at the workplace, training on safe handling of equipment, orientation on safety working in the job

training and use of Personal Protective Equipment (PPE). The management safety practices had a higher average mean score of 3.9 than the job safety 3.38, indicating that management safety practices have a greater impact. The average mean score of job safety and management safety practices is 3.64.

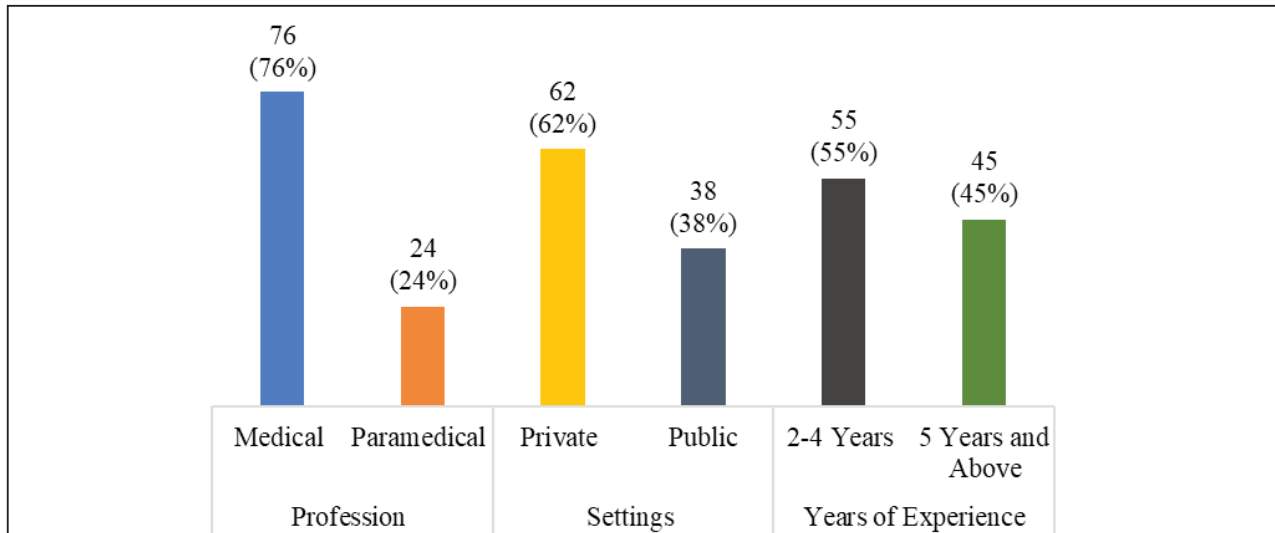


Figure 1: Profile of the respondents

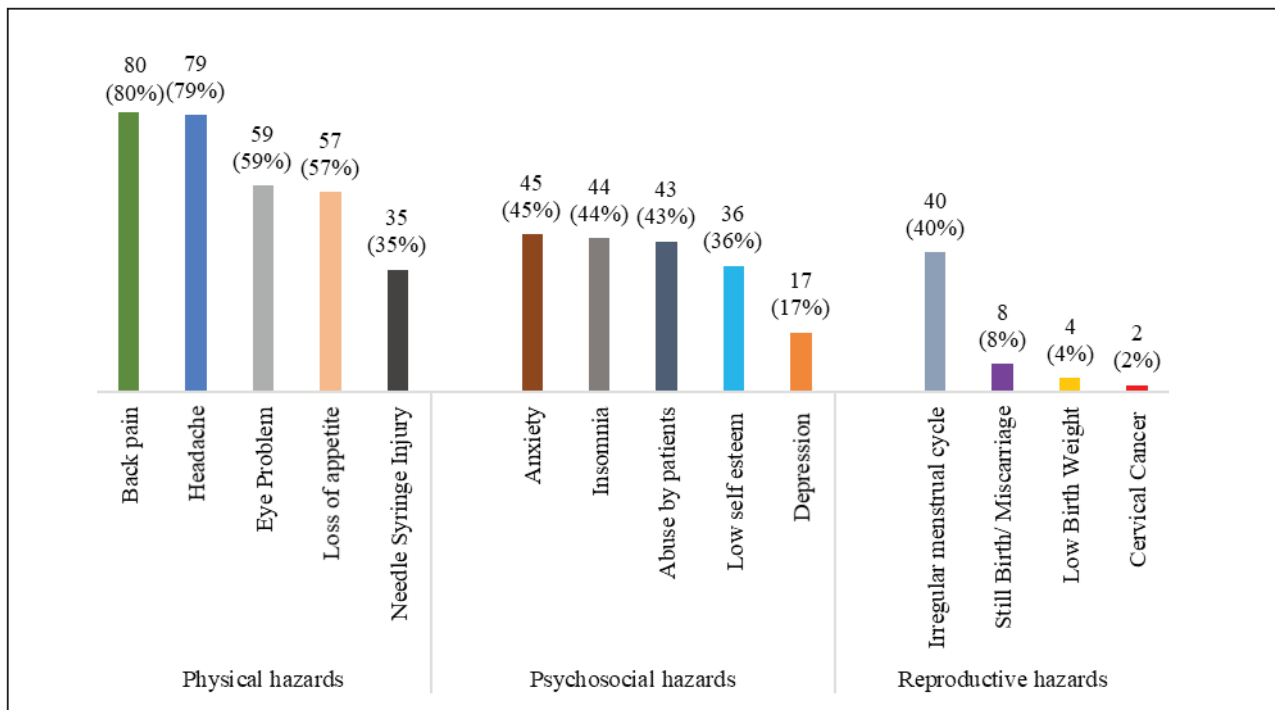


Figure 2: Hazards faced by Women Healthcare Workers

Table 1: Safety Measures

S.N.	Dimensions	Precautions	Mean
1	Job safety	First Aid in times of accident	4.4
		Use of Personal Protective Equipment (PPE)	3.6
		Health screening	3.1
		Frequent break to reduce work stress	3.0
		Vaccination against communicable diseases	2.8
			3.38
2	Management safety practices	Proper biomedical waste management	4.5
		Placed of safety signage & warning signage at workplace	3.9
		Training on safe handling of equipment's	3.8
		Orientation on safety working in the job training	3.8
		Psycho-social support to employees	3.5
			3.9
Average mean score of job safety and management safety practices			3.64

DISCUSSION

Our study shows that back pain (80%) is the common physical hazard suffered by women healthcare workers. Previous studies have found that one of the most common reasons that lead to the loss of a large number of workers is due to back pain, back discomfort is a common concern among healthcare employees, and it hinders their ability to execute their duties or work.^{10,11} Back discomfort is linked to musculoskeletal problems in female healthcare professionals. Incorrect posture, bending, and heavy lifting of equipment at work have all been linked to musculoskeletal problems. Female healthcare professionals are also susceptible to headaches and migraines; our study has reported that 79% of female healthcare workers have experienced headaches as a result of their profession, whereas the previous study found that 70% of female healthcare professionals suffer from headaches at least once a week as a result of their work, which is slightly similar to our study.¹² Our study's prevalence rate of needle syringe injuries (NSIs) is (35%) which is lower than one of the studies, which found a rate of 52.6% among women healthcare workers.¹³ The one-year incidence of needle syringe injuries in Africa's Sub-Saharan region ranges from 31% to 91% and 57.42% of women healthcare workers in Iran between the years 2000 and 2005.^{14,15} Nurses' most common occupational injury is needle syringe injuries commonly occurs during needle recapping; most nurses fail to use/wear gloves when giving patients injections, and a large percentage of nurses indicated that they have not completed the sharp management training course.¹⁶

Psychosocial risks has affected a large number of women healthcare workers, in our study, 45% and 44% of women healthcare workers experience anxiety and insomnia, respectively, whereas in the recent study conducted in China it was found that women healthcare workers in China experience less anxiety (24.15%) and insomnia (39.83%) as a result of improved psychosocial support and work management.¹⁷ Abuse is common among female healthcare workers; and female healthcare workers are frequently subjected to abuse at work from patients, the recent study found that 30% of women healthcare professionals have faced abuse from their patients, which is lower as compared to our study (43%), and women healthcare workers in the Republic of Korea experienced abuse (64%) from their patients, which is significantly more than our study.¹⁸

Irregular menstrual cycle is a common symptom of reproductive hazards among women healthcare workers in our study and 40% of the respondents reported having an irregular menstrual cycle, and the previous study reported that more than 30% of women healthcare workers in Japan have experienced irregular menstrual cycle due to night shift duty, which is nearly similar to our study.¹⁹ The vaccination rate against communicable diseases was found unsatisfactory in our study, and similarly in other studies the rate of vaccination among male and female healthcare workers is found to be low and it was concluded that hesitation to take vaccination results in a lower vaccination rate among healthcare workers.^{20,21} This study has explored the risks as well as assessed the health safety measures of the women healthcare workers in Aizawl

district, Mizoram, India. However, this research has some limitations. First, the study focuses only on the Aizawl district of Mizoram, India so it cannot be generalized. Second, the expected numbers of respondents did not take part in the study due to the spike in the rate of Covid-19 cases in the state and healthcare workers were not approachable and many were not convenient to respond to the questionnaire sent on their email. Lastly, the study focused only on women healthcare workers and the findings are not relevant to the male healthcare workers. Therefore, the findings of the study revealed that women healthcare

professionals are exposed to a variety of risks at work, with a high proportion of reported physical risks among them. The psychosocial and reproductive hazards have significantly affected the psychological well-being of the women healthcare workers. It is necessary to investigate the job safety of women healthcare workers to improve workplace safety. To reduce the number of occupational hazards and risks for women healthcare workers, the health care authority can play a crucial role in improving the health and safety controls for female healthcare workers to minimize the occupational hazards and risks in the workplace.

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