

# **Occupational Health Hazards among Health Team Workers in Intensive Care Units**

Thesis

Submitted for fulfillment of the requirements of Master  
Degree in Community Health Nursing

By

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## **List of Abbreviations**

<i>Abbrev.</i>	<i>Full term</i>
<b>CDC</b>	: Centers for Disease Control and Prevention.
<b>HBV</b>	: Hepatitis B virus
<b>HCV</b>	: Hepatitis C virus
<b>HCWs</b>	: Health-Care Workers
<b>HIV</b>	: Human Immunodeficiency Virus
<b>ICU</b>	: Intensive Care Unit
<b>NIOSH</b>	: National Institute for Occupational Safety and Health
<b>SPSS</b>	: Statistical Package for Social Science
<b>WMSDs</b>	: Work-related Musculoskeletal Disorders
<b>WPV</b>	: Workplace Violence
<b>OSHA</b>	: Occupational Safety and Health Administration
<b>WHO</b>	: World Health Organization
<b>SGH</b>	: Shoubra General Hospital
<b>SHIH</b>	: Shoubra Health Insurance Hospital
<b>ILO</b>	: International Labour Organization

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## **Occupational Health Hazards among Health Team Workers in Intensive care units**

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### **Abstract**

**Introduction:** Health team workers are more susceptible to occupational health hazards. The study aimed to assess occupational health hazards among health team workers in intensive care units. **Design:** descriptive analytical research design. **Setting:** the study was conducted at Shubra General Hospital and Shubra Health Assurance. **Sample:** Purposive sample. **Tools of data collection:** Two tools for data collection. 1<sup>ST</sup> Tool: Questionnaire sheet that developed by the investigator. It constricted of 4 parts, part 1 concerned with demographic characteristic, part 2 concerned with health care workers' knowledge regarding occupational health hazards, part 3 includes occupational health hazards exposure at workplace, and part 4 covered health care workers' practice toward health measures in workplace. Second tool observational checklist for observing occupational health hazards at work place and include physical examination sheet. **Results:** Health team workers' knowledge regarding occupational hazards revealed total satisfactory knowledge of 74.0%, health care workers' knowledge regarding methods of safety measures showed a total satisfactory knowledge of 84.4%, physical hazard total exposure 86.6%, psychological hazards' total exposure 77.3 %. Chemical hazards total exposure 63.6%. Social hazards total exposed 68.8% and accidental hazards total exposure 72.7%. Biological hazards total exposure 63.6%, 46.7% of health care workers exposed to sharp tools more than 10once, 11% from health care workers exposed to hepatitis c (HCV), 1.9% exposed to hepatitis B virus (HBV). **Conclusion:** The study concluded that more than half of health team workers have the knowledge regarding occupational health hazards in intensive care units and less than half of the health team workers knew the meaning of occupational health. There were highly statistically significant relation between total knowledge and health worker practice. **Recommendation:** Regular health program should be conducted regarding the use of personal protective equipment and periodic physical examination.

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**Key word:** Occupation health hazards, health team workers

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# Introduction

Health care workers define to be all people engaged in **H**actions whose primary intent is to enhance health. They make significant contributions and are critical to the functioning of most health systems (**Perry, 2016**).

An occupational hazard is defined as the “potential risk to the health of a person emerging from an unhealthy environment,” which is a significant public health issue. It can be referred to as any activity, materials, processes, or situation that is likely to cause an accident or disease at the workplace. Although improvement in occupational health has been seen in many developed countries, however, the protection of workers from work-related disorders is not a priority in many developing countries, partly because several other health issues have competed with occupational health (**OSHA, 2015**).

Health care workers in intensive care units face a wide range of hazards on the job, including needle stick injuries, back injuries, latex allergy, violence, and stress. Health care workers (HCWs) need protection from these workplace hazards just as much as do mining or construction workers. Nevertheless, since their role is to care for the sick and wounded, HCWs are often deemed "resistant" to injury or

disease. Their patients come first. They are often expected to sacrifice their well-being for the sake of their patients. Indeed, the health protection of health care workers has the added benefit of contributing to quality patient care and health system strengthening (**Faber et al., 2016**).

Exposure to hazardous healthcare waste in intensive care units can result in disease or injury. Occupational infections and injuries lead to economic, physical, and psychological damage to the healthcare worker and family (**OSHA, 2015**).

The WHO Global Plan of Action on workers' health calls on all member states to develop national programs for health worker occupational health and to develop national campaigns for immunizing health workers against hepatitis B. WHO global burden of disease from sharps injuries among health workers, showed that 37% of the hepatitis B among health workers was the result of occupational exposure. Infection with the hepatitis B virus is 95% preventable with immunization, but less than 20% of health workers in some regions of the world have received all three doses needed for immunity.

Besides, less than 10% of the immunodeficiency virus (HIV) among health workers occurs as a result of exposure at

work. Needle stick injuries, the cause of 95% of the HIV occupational seroconversions, are preventable with practical, low-cost measures and have the co-benefit of preventing exposure to other blood-borne viruses and bacteria (**World Health Organization, 2017**).

A National Institute for Occupational Safety and Health (NIOSH) report indicated that an estimated 600,000 to 800,000 percutaneous injuries occur annually to HCWs. The Association of Per Operative Registered Nurses (AORN) says in its position statement on workplace safety, “Nurses practicing in the perioperative environment are at distinct risk for percutaneous injury due to prolonged exposure to open surgical sites, frequent handling of sharp instruments, and the presence of large quantities of blood and other potentially infectious body fluids” (**Trinkoff, 2016**).

The safe workplace includes maintaining safe equipment, providing adequate nurse staffing levels, and fostering safe work practices. An unsafe workplace contributes to work-related injuries and diseases that often result in physical, emotional, and financial difficulties for perioperative nurses. Occupational injuries are resulting from an unsafe workplace impact the healthcare organization by increased costs and a reduced ability to provide services. Occupational hazards in the workplace have been identified

as a significant contributor to nurses leaving the profession, contributing to the growing nursing shortage (**Arezes et al., 2019**).

Professional nursing is required collaborative and comprehensive practice to build on a broad knowledge base of nursing and health sciences. Also applies infection control measures and clinical skill based on the nursing process (**Blackmon, 2016**). As well as use evidence-based information across a variety of department and outpatient units to achieve and ensure patient safety and high quality of care to improve patient outcomes (**Clarke, 2016**).

The occupational health nurses play an important role in maintaining the health and safety of employees by assessing the work site for hazards and potential hazards and reducing risk that could lead to disaster situation (**Gyawali et al., 2015**). More effort could be directed at integrating health promotion with health protection activities to provide an environment more conducive to the general worker's health specially, so that the work site offers an excellent setting to focus on both health protection and health promotion (**Tang et al., 2016**).