

Developing and verifying Guidelines for Controlling of Occupational Hazards Facing Staff Nurses

Thesis

*Submitted in partial fulfillment of the requirements
of Doctorate Degree in Nursing Sciences (Nursing
Administration)*

By

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

سبحانك لا علم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدق الله العظيم

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List of Abbreviations

ALARA	: As Low As reasonably Achievable
ANA	: American Nurse Associations
CDC	: Centers for Disease Control and Prevention
HCFs	: Health Care Facilities
HCWs	: Health Care Workers
HIV	: Human Immunodeficiency Virus
ICU	: Intensive care unit
ILO	: International Labor Organization.
JCI	: Joint commission international
KAP	: Knowledge, attitudes, and practices.
LEV	: Local Exhaust Ventilation
MCH	: Maternal and Child Health
MTB	: Mycobacterium Tuberculosis
NHS	: National Health Service
NIOSH	: National institute of occupational safety and health
NLR	: Natural Latex Rubber
NO	: Nitrous oxide
NSI	: Needle Stick Injuries
OPIM	: Other potentially infectious material
OSHA	: Occupation safety and health administration
SDS	: Safety Data Sheets
SPs	: Standard precisions
SWP	: Safe Work Procedures
USEPA	: United States Environmental Protection Agency
WHO	: World Health Organization
WSH	Work Place Safety &health

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Abstract

Background: Many forces have converged to spotlight the issue of occupational hazards today. Moreover, staff nurses primary commitment is to the hospitals, well-being, and safety measures of the nurses staff across the life span and in all settings. **Aim :** The aim of the study was to develop and verify guidelines for controlling occupational hazards facing staff nurses. **Design :** A methodological design used to carry out this study. **Subjects:** Total numbers of staff nurses was 50. **Setting :** The study was conducted at El Harm hospital ,which included three ICUs. **Tools of data collection :** Need assessment questionnaire sheet , Work-related hazards exposures, observation check list , environmental assessment tool, and–Opinionnaire sheet. **Result:** there was significant differences between mean scores of the staff nurses regarding occupational hazards knowledge throughout the guidelines and there was a statistical significant difference between mean scores of staff nurses regarding their performance. **conclusion :** There was improvement of staff nurses knowledge and performance related to occupational hazards after implementing of guidelines. **Recommendation :** An orientation program about safety measures of occupational hazards for preparation of newly appointed staff nurses is highly recommended.

Key words: guidelines – intensive care unit - occupational hazards – staff nurses.

Introduction

Every day at the workplace, workers confront with occupational hazards such as accidents, dust, chemicals, noise, violence or stress (*Jingke, 2014*). Hospitals are large, run by organizationally-complex system, institutions employing large numbers of workers from different professional streams. They are also potentially - hazardous workplaces and expose their workers to a wide range of hazards physical, thus occupational health and safety issues related to the personal safety and protection of their workers is a very important environmental health concern for hospitals (*Aluko, et al., 2016*).

Healthcare workers provide a large array of services with multiple exposures that can result in serious short and long – term health consequences and hazard exposures. These hazards are classified into five categories; biological hazards such as immunodeficiency virus (HIV), viral hepatitis and tuberculosis., chemical hazards as cytotoxic drugs and anesthetic agents. physical hazards which related to radiation and noise. psychosocial hazards in the form of stress and shift work. Ergonomic hazards. These exposures have been linked with outcomes such as cancer, injuries and acquiring infectious diseases (*Hosoglu et al 2015; Skudlike et al., 2014*).

Occupational hazards that any injures such fractures, cuts, sprain or amputation that result in the work

environment from the incident are accidentals. Occupational hazards defined as an occupational illness as any abnormal condition or disorder resulting from occupational injury caused by exposure to environmental factors (*OSHA, 2016; Kelvin, 2015*).

Occupational Hazards are working conditions that can lead to illness or death. The term ‘occupational hazard’ is defined in Webster's New World Law Dictionary as: “at risk peculiar to the specific occupation or place of employment and that arises during normal work at such a job or workplace. Often, people in jobs which pose a high level of risk are paid more than similar but less risky jobs to compensate for the danger involved. Business Dictionary defines “occupational hazard as dangerous to health, limb, or life that is inherent in, or is associated with, a particular occupation, industry, or work environment. These include risks of accidents and of contracting occupational diseases (*Dsouza, 2013*). Occupational hazards include the likelihood of accidental injuries and diseases.

Occupational hazards are defined as risks to people usually arising out of their employment. The source of these hazards is the work environment which can include physical, chemical, biological, mechanical and social aspects. Hazard control and prevention strategies to assure every working man and woman are safe. Healthful workplace conditions regard training as an axiomatic part of all such efforts. To reinforce this point, requirements for

worker safety and health training are found in more than 100 occupational safety and health standards promulgated by the Occupational Safety and Health Administration. (*Dsouza, 2013; OSHA, 2017*).

Occupational health and safety is an important issue because of high rates of associated morbidity and mortality of exposed workers. An estimated 100, 000 people die from occupational illnesses, while about 400, 000 new cases of occupational diseases are diagnosed every year (*Amosu et al., 2011*). This affects workers in various occupations as a result of their exposure to different types and varying degrees of hazards in the workplace. Workers in the farming, general contracting, steel, automobile, truck driving and nursing sectors have the highest risk of exposure to work hazards (*Skudlike et al., 2014*).

Guidelines are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. Developing practice guidelines is a challenging task that requires diverse skills ranging from analysis of scientific evidence to management of group decision making to presentation of complex information in understandable forms. To arrange for the development of guidelines by expert panels and contractors, the forum must be able to state its expectations for the process and then assess the soundness of the resulting products. (*National Clinical Guideline Center, 2014*).

Significance of the study

The researcher observed that large number of nurses is exposed to many types of hazards as back pain, strain, varicose vein and they asked to go to the medical consultants and obtain sick leaves, which affect quality of care rendered to the patient and their decision about changing their career or turnover.

Moreover, study conducted by *Hussein, (2015)* found that 94, 1% of nurses were exposed to lower back, neck, and shoulder pain, ankle sprain and fracture, 92, 6% of them were exposed to biological hazards, 86, 7% of them were exposed to psychological stress . 83% of them were exposed to varicose veins . 20, 7% of them were exposed to gas leak, and 12, 6% of them were exposed to sexual violence. Additionally, this study recommended developing guidelines about safety measures to prevent hazards.

So this study was an attempt to developing guidelines for controlling of occupational hazards facing staff nurses working in ICU.

Aim of the Study

This study aims to develop and verify guidelines for controlling occupational hazards facing staff nurses through:

- 1). Design guidelines for controlling occupational hazards facing staff nurses.
- 2). Test the validity and reliability of the proposed guidelines.
- 3). Implementing the developed guidelines.

Research question:

Are the developing guidelines applicable in the ICUs?.