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DIPLOMA PROGRAMMES

BEHAVIOUR AND ATTITUDE ON WORK-RELATED RISKS AND HAZARDS AMONG HEALTH PERSONNELS AT HOLY FAMILY HOSPIAL, BEREKUM

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DECLARATION

We hereby declare that this submission is our own work towards the Diploma in General Nursing/Midwifery and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

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ABSTRACT

The study focused on the behavior and attitude on work-related risks and hazards among health personnels at Holy Family Hospital, Berekum. A cross sectional descriptive study was used to collect in-depth information for the study. The sample population was obtained using a convenience sampling technique. A total of 50 nurses were sampled for the study. The data for the study was collected by administering the questionnaire to the participants.

The study found that 88% (44) of the respondents have not received training on occupational hazards practices in the health care facility. All the respondents (100%) mentioned biological hazards and physical hazards. 90% of the respondents mentioned chemical hazards and 86% of respondents mentioned ergonomic hazard. 72% of the respondents mentioned safety hazards as a category of occupational hazard. A whopping 80% of the respondents mentioned trips and falls. 74% of the respondents mentioned long working hours. 56% of the respondents mentioned lack of equipment's. 40% of the respondents mentioned time pressure and stress as causes of occupational hazards. Most of the respondents perceived high susceptibility to 62% needle prick injuries and 60% direct contact with patients' fluid, 52% (26) of the respondents had low perception about assaults from patients.

The study recommended that management of the must train healthcare workers on Occupational Health and Safety practices. Matron and ward in charges must also make sure that each shift is covered by enough nurses to prevent excessive fatigue among nurses and midwives. The study concluded that respondents have adequate knowledge on occupational hazards though respondents had no training after their previous education on occupational hazards. The overall perception of respondents on work-related risks and hazards was good.

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ABBREVIATION

PPE	Personal Protective Equipment
HCWs	Healthcare Workers
ILO	International Labour Organization
OHS	Occupational Health and Safety
WHO	World Health Organization
STF	Slips, Trips and Falls

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CHAPTER ONE

INTRODUCTION

1.0 Background of the study

According to Yesilgul et al. (2018), there are 270 million work-related accidents and 160 million occupational disorders per year. Having healthcare personnel who have received the proper training is crucial to ensuring their safety at work. Health professionals are put under pressure in many nations, particularly developing nations, due to workplace safety violations (Hanvold, Kines, Nykänen, Thomée, Holte, Vuori, Waersted & Veiersted, 2019). According to Clari, Garzaro, Di Maso, Donato, Godono, Paleologo, Dimonte, and Pira (2019), the main goal of occupational health and safety is to promote and maintain the best physical, mental, and social well-being of workers in all occupations and appropriate work adaptation for everyone and each in their workplace.

Healthcare administrators and policymakers are of the opinion that there are no illnesses or injuries that induce healthcare personnel to overlook or disobey general safety requirements. This belief makes healthcare professionals less likely to look for, use, and abide by all safeguards. Risk is the likelihood that a hazard will harm "life, health, and/or environment," whereas hazard is an intrinsic quality of a material, agent, energy source, or circumstance that can result in unintended consequences (Aluko, Adebayo, Adebisi, Ewegbemi, Abidoye and Popoola, 2019). In this context, an injury to the body, an injury to any portion of the body, an illness, or death from an external source, such as an accident at work, are all considered to be workplace accidents. Therefore, occupational accidents are different from occupational diseases, ie occupational diseases. diseases acquired by exposure for a certain period of time to occupational risk factors (Rai, El-Zaemey, Dorji, Rai and Fritschi, 2021).

Nursing can be an extremely dangerous profession, nurses and health care providers are always faced with various word dangers and are very helpless in the face of occupational health hazards. career in the workplace (Rai, El-Zaemey, Dorji, Rai and Fritschi, 2021). In the field of nursing, the types of risks encountered are diverse. Some have been around since the birth of nursing, but it can be said that they have been recognized recently (He, Wang, Zhang, Luo, Chen, Luo, & Ren, 2022). Other risks are new, mainly due to the rapid advancement in health care in recent times. Nurses providing healthcare to patients in the workplace are considered one of the riskiest environments (Shamkh, Mohammed, & Al-Abedi, 2022).

There are many risk factors for occupational accidents such as blood pathogens from the patient's body fluids, needle punctures, sharp cuts, slips, trips, violence by patients and their loved ones at the hospital. These hazards or injuries are classified as biohazards (contact with the patient's bodily fluids). These risks make healthcare workers vulnerable to infectious diseases such as tuberculosis, hepatitis, HIV/AIDS, SARS, Ebola. Chemical hazards such as glutaral dehyde, ethylene oxide. Physical hazards such as noise, slips, trips, falls. Ergonomic hazards such as heavy lifting. Psychosocial risks such as shift work, stress. Finally, there is the risk of fire. The use of oxygen, alcohol and disinfectant gels (Bello, Adu, Ndaa, Odole, Iyor and Boakye, 2021).

Injuries from needles and sharp objects are the most common injuries among healthcare workers. mostly in different studies both nationally and internationally (Denge & Rakhudu, 2022). Hepatitis B, C, and HIV are the most common blood-borne infections among healthcare workers (Amare, Al-Otaibi, & Herzallah, 2021) acquired by healthcare workers through needles and sharp wounds. WHO statistics indicate that the global burden of disease due to sharp object injuries among healthcare workers is 37%. Hepatitis B in healthcare workers is the result of occupational exposure, while less than 10% of HIV infections among

healthcare workers are due to occupational exposure. occupational exposures, needlestick injuries, the cause of 95% of occupational HIV seroconversion cases, are preventable through practical and inexpensive procedures (World Health Organization, 2018).

In Sub-Saharan Africa, sharp object wounds in healthcare workers account for 30% of new HBV infections and 2.5% of HIV infections annually (World Health Organization, 2018). Contributing factors to occupational injuries and diseases in health facilities include lack of awareness among medical staff, lack of appropriate protective and supportive equipment, and inadequate staffing in different departments. facility, excessive workload, failure to follow basic safety and hygiene guidelines. and lack of knowledge to operate modern medical devices (Hanvold et al., 2019). A study conducted in Botswana to determine the incidence of occupational slips, trips and falls (STF) among healthcare workers in the Limpopo province of South Africa found that out of 686 cases of occupational injury In the years examined, there were 139 TSP-related cases, resulting in a prevalence rate of 20.3% (Manyele, Ngonyani, H. & Eliakimu, 2020) .

The consequences of occupational diseases and injuries include physical, economic and psychological harm to healthcare workers. In Nigeria, healthcare workers (doctors, nurses and paramedics) are not well prepared to manage occupational hazards and are therefore injured/illnessed in the performance of their duties (Aluko, Adebayo) , Adebisi, Ewegbemi, Abidoye and Popoola, 2019).

A study conducted at a tertiary hospital in Nigeria with medical staff to assess the prevalence and types of workplace violence found that:

88.1% of participants experienced violence in the workplace and more than half of 54.4% of violence occurred in the service industry. Verbal abuse (85.4%) was the most common, while sexual harassment was the least common at 4.5%. About a quarter (25.1%) of all participants had been physically assaulted in the previous year. Patients and their loved ones are the main

perpetrators of physical attacks and threats. The main bullies in the workplace are senior colleagues (Ogbonnaya, 2019).

The International Labor Organization (ILO) requires the implementation of Occupational Safety and Health (OHS) policies at both government and corporate levels ((Bonsu, Adei and Agyemang-Duah, Consistent with the guidelines) Globally, an OSH policy exists in Ghana through an Act of Parliament (Ghana Labor Act), Act 651 of 2003, to protect the health and safety of employees. common in many different work environments indicates a specific occupational assessment (Bonsu et al., 2020). However, adherence to core OSH guidelines has been shown to be effective in reducing occupational diseases, injuries and occupational hazards among healthcare workers (Amare, Tesfaye, Girmay, & Gebreagziabher, 2021). However, there are many potential barriers to effective OSH practices in organizations, including lack of knowledge, low motivation, poor attitudes and limited human resources (Bonsu, Adei & Agyemang). -Duah, 2020).

Poor knowledge, awareness and attitudes about occupational health are associated with a high frequency of work-related accidents, which contribute to reduced labor productivity, absenteeism, high economic losses and morbidity. highly infectious and non-infectious occupations. Therefore, this current study will seek to find out the behavior and attitude on work-related risks and hazards among health personnels at Holy Family Hospital, Berekum.

1.1 Problem statement

There are many occupational hazards in healthcare facilities that are considered unsafe and high-risk workplaces (Hanvold et al., 2019). Healthcare workers in health care facilities face many occupational hazards some of them are not aware of and are therefore susceptible to occupational accidents and occupational diseases (Obono, Adeosun, Olaiya and others). Adesina, 2019).

Occupational health and safety has been neglected for a very long time, especially in developing countries like Ghana. Many governments, organizations, policy makers, regulators and administrators have shown no commitment and lack of interest in investing in this area (Amare et al., 2021). The health sector is one of the organizations that must adhere to occupational health and safety principles and practices to promote safety in the workplace (Obono et al., 2019). Globally, there is a burden of communicable diseases that healthcare workers contribute to, increasing the proportion of risks from daily exposure to blood-borne pathogens through needlestick wounds, cuts, and objects. sharps and body fluids from the patient. This increases their vulnerability to infectious diseases such as hepatitis B and C, HIV and others (World Health Organization, 2018).

Transporting patients from room to room, lifting equipment, service positions, and postoperative patients are all risk factors for musculoskeletal disorders (Aluko, et al., 2019). Workplace accidents are underreported in many different professional fields, and the medical industry is no exception. In the healthcare sector, injury information or records are limited, making statistical analysis of injuries difficult. It is therefore important to find out the behavior and attitude on work-related risks and hazards among health personnels at Holy Family Hospital, Berekum.

1.2 General objective

To find out the behavior and attitude on work-related risks and hazards among health personnels at Holy Family Hospital, Berekum.

1.3 Specific objective

1. To determine the knowledge on work-related risks and hazards among health personnels.
2. To determine the perception of work-related risks and hazards among health personnels.

3. To determine the attitude of health personnels towards work-related risks and hazards.

1.4 Operational definition of terms

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.

Occupational Injury: means any injury, illness or death resulting from a workplace accident.

Occupational disease: is a disease acquired by prolonged exposure to occupational hazards.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter contains review of relevant literature related to the research topic. A well-structured literature review begins with broad or general information, then narrows the focus to those studies most closely related to the research problem. The literature review is in two parts: Theoretical review which involves a survey of theory underlying the research problem and Empirical review which involves the survey of actual but relevant work done in the problem area under investigation.

2.1 Knowledge on Work-Related Risks and Hazards

A cross-sectional study was performed among healthcare workers (HCWs) at Dammam Medical Complex in Saudi Arabia. The aim of the study was to test the ergonomic knowledge of healthcare workers at a large government healthcare facility. Participants were asked to complete a validated questionnaire consisting of four parts (demographic, knowledge, attitude, and factual information related to ergonomics). This questionnaire was recently developed by us based on a review of the literature and has been pilot tested after development. A total of 273 medical staff from the Dammam medical complex participated in this study. Their average ergonomics score was 2.6, or “fair to good.” This study shows that the majority of participants have quite good knowledge and good attitude about ergonomics in the workplace during practice. However, the practice of ergonomics in the workplace has not yet been implemented (ALHazim et al., 2022).

An institutional cross-sectional study was performed at the University of Mekelle, Ethiopia. The study aimed to assess exposure to occupational health hazards among nursing and midwifery students during clinical practice. Simple random sampling method is used to select

the intended research subjects. A total of 151 students participated with a response rate of 100%. After data collection, responses were coded and entered into a computer using SPSS version 22 for data processing and analysis. The study found that most of the 87 respondents (57.6%) said they were aware that needle punctures, bleeding and cuts to the skin can lead to occupational hazards. The majority (80 (53%)) had mixed sources of information (mass media, nursing schools, magazines and books) on occupational hazards. Regarding occupational hazard knowledge in the general clinical field, 46 people (29.8%) had good knowledge and 57 people (37.7%) had poor knowledge. The study concluded that the majority of students had poor knowledge of occupational hazards. To train a qualified nurse and midwife, it is imperative to train all pre-clinical students in safe work practices and the correct use of personal protective equipment (Amare, Tesfaye, Girmay, & Gebreagziabher, 2021).

A descriptive cross-sectional design was used to conduct a study in Nigeria among healthcare workers on occupational hazard knowledge and safety measures. A stratified sampling technique was used to identify 290 respondents. The study found that 167 respondents (57.6%) had high knowledge while 123 people (42.4%) had low knowledge about occupational hazards and safety in the workplace. The results showed that most respondents (89%) were aware of the dangers in healthcare settings, identifying used needle collection as a risky behavior (70%). and acknowledges that effective hand washing before and after each procedure clinic allows for cross-contamination. preventable (100%). Most respondents (99.7%) are aware of occupational hazards and are aware of physical hazards (82%), chemical (81.7%), biological (72, 4%), mechanical (63.8%) and ergonomics (33.8%). In addition, most respondents (289.99.7%) are aware of safety precautions against occupational hazards. In addition, most (58%, 253) of respondents acquired knowledge of occupational hazards through vocational training, while only 6% of respondents obtained this knowledge

through vocational training. through pre-employment orientation on work ethics (Aluko et al., 2019).

A cross-sectional descriptive design and stratified sampling technique were used to conduct the study in Lagos, Nigeria. A structured questionnaire was used to collect data. The objective of this study was to assess healthcare workers' knowledge and perceptions of occupational hazards in their workplace and to identify their safety attitudes and practices to protect themselves. away from these dangers. The results of the study indicate that the perception of occupational risk among healthcare workers is generally high. 97.1% of respondents agree that there are physical hazards in their workplace. 88% acknowledged chemical risks, 82% biological risks and 80% psychological risks. Most of the respondents (97.9%) agree that they can contract infectious diseases such as tuberculosis, hepatitis B, tetanus, HIV/AIDS, Lassa fever, etc. while working at the hospital. About 90% of respondents agree that stress is one of the dangers that staff face in hospitals. Most healthcare workers (approximately 80%) agree that verbal and physical aggression are the dangers they face as employees in healthcare settings (Obono et al., 2019).

Regarding attitudes towards safety, the majority of healthcare workers (93.6%) admitted that they wash their hands before doing any work and after finishing work. 90% of respondents wear personal protective equipment (PPE) before performing their jobs. Approximately 78% of respondents agree that they will read the user manual of any medical device carefully before using it to minimize the risks that may arise when using the device. When asked if they find their working environment favorable, only respondents said yes. Most of them feel that the current unfavorable working environment may expose them to occupational risks. Most healthcare workers (98.6%) believe that contact with a patient's blood/body fluid sample is a potential source of occupational disease transmission. The results showed that most of the rooms and wards in the hospital were cleaned daily with disinfectants, confirmed

by 77.1% of the respondents. About 80% of the respondents disagreed that the employer or the hospital management periodically check the health of the workers and there is almost no measure to immediately treat the workers. injuries to ensure a healthy workforce (Obono, Adeosun, Olaiya & Adesina, 2019).

A cross-sectional survey was conducted among physiotherapists practicing in the southern region of Ghana. The aim of the study was to determine the knowledge, awareness, attitudes and practices of occupational safety and risk among physiotherapists. Participants were purposefully sampled across the centers. A total of 128 physiotherapists participated in the study. Data were analyzed using IBM-SPSS version 20. The study found that a high proportion of physiotherapists demonstrated adequate specific knowledge of physical risks (89, 3%) and ergonomic risks (91.3%). Forty-four participants (42.7%) reported that physical contact could be a source of occupational hazard, 36 (35.0%) reported airborne infection and 22 (31.4%) reported considers bloody fluids to be a hazard (Bello, et al., 2021).

2.2 Perception of Work-Related Risks and Hazards

A descriptive study was carried out in a large public hospital in Nicosia, Cyprus and its sample included 246 nurses. The study was conducted to determine the level of knowledge and awareness of hospital nurses about occupational hazards. The study found that 81.7% of nurses were trained in occupational hazards. Circulatory abnormalities due to prolonged standing (74.0%), Injury from sharp objects such as needles (70%), Spinal cord injury during patient care (67.1%), Exposure to radiation Radioisotope and X-ray radiation (57.7%) and Slips and falls on slippery floors (39.4%) were considered high risk by most respondents among the various occupational risks (Yesilgul et al., 2018).

A descriptive cross-sectional design was used to conduct a study in Nigeria among healthcare workers on attitudes to occupational hazards and safety practices. A stratified sampling

technique was used to identify 290 respondents. The study found that 279 (96.2%) respondents said that they are at risk of exposure to occupational hazards in the hospital and about two thirds (174 respondents) consider the exposure risk to be high. , while 31.7% and 8.6% said they were at risk. exposure is high. The risks are medium and low, respectively. Staff consider needle injury (94.5%), direct contact with patient fluids (92.4%) and patient aggression (77.2%) as risks. risk, while routine night shifts (59.3%) and physical contact with HIV-positive patients (52.1) %) were considered the least dangerous. In addition, more than two-thirds of respondents (67.2%) perceive their vulnerability to occupational risks to be high, while 95 (32.8%) believe that their way of working they do not affect their health enough ((Aluko, Adebayo, Adebisi, Ewegbemi, Abidoye and Popoola, 2019).

A cross-sectional survey was conducted among physiotherapists practicing in the southern region of Ghana. The aim of the study was to determine the knowledge, perceptions, attitudes and practices of occupational hazards and safety among physiotherapists. Participants were purposefully sampled across the centers. A total of 128 physiotherapists participated in the study. Data were analyzed using IBM-SPSS version 20. The study found that 96 (93.2%) felt at risk for occupational hazards, of which 75 (72.8%) physiotherapists assessed it. Their perceived price is moderate. Slip and fall incidents in 92 cases (89.3%); overall performance is 80 (77.7%); poor lighting, 83 (80.6%); physical contact with 82 (79.6%) patients with retroviral infections identified as part of an alleged occupational hazard in their practice setting (Bello, Adebayo, Adebisi, Ewegbemi, Abidoye , & Popoola, 2021).

An exploratory, descriptive and qualitative study design was used to conduct the study in the public hospitals in Distobotla. The study aimed to explore and describe nurses' perceptions of occupational health risks and safety measures. A total of 15 nurses from different categories participated in the study, forming four focus groups. Research shows that nurses face occupational diseases, which develop as a result of exposure to biological hazards such as

bacterial infections that cause tetanus, tuberculosis, gonorrhea and viruses (hepatitis, HIV) , COVID-19), physical and mechanical risks. such as sharp object injuries, falls, cuts, abrasions, muscle and bone disorders (MSD) and psychosocial factors present in the work environment or encountered during work. The study concluded that nurses are aware of various occupational risks that affect their normal duties and responsibilities in the workplace (Denge & Rakhudu, 2022). The participants showed the right attitude towards the application of OSH in their practice. While 102 (99.0%) believe that preventing occupational hazards is a shared responsibility of hospital management and staff, only 12 (11.7%) believe that special attention to occupational hazards that would constitute an unnecessary burden on them. In addition, 101 (98.1%) agreed that exposure and control policies should be regularly reviewed by hospital management, and 78 (75.8%) agreed that punitive measures should be taken. penalties for violators of security measures. In addition, very few participants (1.9%) disagreed that all healthcare workers should avoid standing for long periods of time (Bello et al., 2021).

2.3 Attitude Towards Work-Related Risks and Hazards

A descriptive cross-sectional design was used to conduct a study in Nigeria among healthcare workers on attitudes to occupational hazards and safe practices. A stratified sampling technique was used to identify 290 respondents. In the study, 288 (99.4%) respondents believed that occupational hazards should be prioritized and addressed promptly as part of employee-friendly arrangements in healthcare facilities. health and 285 (98.3%) believe that risk prevention and control in healthcare settings should be an important measure. common interest. responsibility between hospital management and staff. In addition, 287 (99%) consider staff training and provision of protective equipment mandatory to reduce the risk of exposure to occupational hazards, while 287 (99%) strongly require the The competent authority reports and records all occupational hazard exposures. In addition, 234 (81%) of the respondents thought that severe sanctions should be imposed on employees who violate safety measures at

medical facilities to deter others. Regarding the composite attitude index, our research shows that 232 respondents, or 80%, have a positive attitude, compared with 20% have a negative attitude towards occupational hazards and practices. preventive safety practices (Aluko et al., 2019).

A cross-sectional descriptive design and stratified sampling technique were used to conduct the study in Lagos, Nigeria. A structured questionnaire was used to collect data. The objective of this study was to assess healthcare workers' knowledge and perceptions of occupational hazards in their workplace and to identify their safety attitudes and practices to protect themselves. away from these dangers. Regarding attitudes towards safety, the majority of healthcare workers (93.6%) admitted that they wash their hands before doing any work and after finishing work. 90% of respondents wear personal protective equipment (PPE) before performing their jobs. Approximately 78% of respondents agree that they will read the user manual of any medical device carefully before using it to minimize the risks that may arise when using the device. When asked if they find their working environment favorable, only respondents said yes. Most of them feel that the current unfavorable working environment may expose them to occupational risks. Most healthcare workers (98.6%) believe that contact with a patient's blood/body fluid sample is a potential source of occupational disease transmission. The results showed that most of the rooms and wards in the hospital were cleaned daily with disinfectants, confirmed by 77.1% of the respondents. About 80% of the respondents disagreed that the employer or the hospital management periodically check the health of the workers and there is almost no measure to immediately treat the workers. injuries to ensure a healthy workforce (Obono et al., 2019).

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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the research design and methodology. This includes the study area, study population, sample and sampling technique, data collection, analysis and ethical considerations.

3.1 Study area

The study will be conducted at Holy Family Hospital, Berekum. The Holy Family Hospital Berekum is situated in the Bono Region of Ghana. Holy Family Hospital (HFH), Berekum is a Catholic Diocesan Hospital which serves as the Municipal Hospital that serve the people of Berekum. It was established in 1948 by the Medical Mission Sisters (MMS) and became a Diocesan Hospital in 1978. Holy Family Hospital (HFH), Berekum, since 1969 has been networked with the Ministry of Health (MoH). The major catchment area of the facility is Berekum Municipality. The hospital provides the following services; The Hospital provides a 24hour specialist and general services on both out-patient and in-patient basis. The hospital has a total of 11 units/wards. The Hospital offers the following health care services Out Patient, In patient, Pharmacy, Laboratory, Dental, Eye Care, ENT, Adolescent Reproductive, Child welfare, HPT/DM clinic, Antenatal, Post Natal, Ultrasound among others.

3.2 The study population

The study population will consist of health personnels working at Holy Family Hospital, Berekum.

3.3 Study design

The study will adopt a cross sectional descriptive study. The study used this design because there was the need to gather data on the situation over the period of conducting the study.

3.4 Sampling technique and size

A convenience sampling technique will be used to select participants for the study. A total of 50 health personnels will be sampled for the study.

3.5 Data collection methods and instruments

The research team will develop a questionnaire which will be used for the data collection on the behavior and attitude on work-related risks and hazards.

3.6 Data analysis technique

Data will be entered and analyzed using the Microsoft excel version 2016 and results will be presented in the form of frequencies and percentages.

3.7 Ethical consideration

An introductory letter will be issued from the school to the hospital administration seeking for permission to conduct the study at Holy Family Hospital, Berekum. The research team believed that maintaining the confidentiality and anonymity of the participants is crucial to this study. Informed consent was obtained after comprehensive explanation of the purpose and procedure of the study to the participants. Participants were informed about their right to withdraw or refuse to be part of the study at any point in the course of the interview and were assured of confidentiality of all information that was obtained. Furthermore, the identities of the participants were not disclosed, and only aggregate data was reported. Moreover, participants were fairly selected, no form of harm and discomfort was done. The research team ensured no form of research misconduct transpired throughout the period of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Data Presentation and Analysis

This section deals with analysis of data collected from the field of study and the results obtained from the analysis. Information gathered was put into tables and graphs.

4.1 Demographic Characteristics

In trying to find out about the gender of respondents, majority 62% (31) of the respondents were females whiles 28% (14) were males. In trying to find about the age distribution of respondent 54% (27) of the respondents were aged between 25 to 29 years and 34% (17) of them were above the ages of 30 years, the remaining respondent were 12%(6) were within the ages of 20 to 24. Data marital status showed that 64% (32) of respondents were single and 36% (18) were married. Again, in accessing the professional qualification 44% (22) of the respondents were staff nurses, 36% (18) of the respondent were staff midwives, 10% (5), of the respondent were laboratory technician, 4% (2), of the respondent were dentist 2% (1) of the respondent were dietician, physician assistant and pharmacist who had equal percentage each had 2%. In trying to know about the years of practice by respondents, Majority of the respondents 54% (27) had practiced for 1 to 3 years and 34% (17) of the respondent had practiced for 4 to 6 years while 12% (6) of the respondent had practiced for seven to nine years as indicated in table 1 below.

Table 1: Respondent Demographic Variables

Variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	14	28
	Female	31	62
Age	20-24	6	12
	25-29	27	54
	30 and above	17	34
Marital status	Married	18	36
	Single	32	64
Professional qualification	Staff midwife	18	36
	Staff nurse	22	44
	Lab technician	5	10
	Dietician	1	2
	Dentist	2	4
	Pharmacist	1	2
	Physician assistant	1	2
Years worked	1-3	27	54
	4-6	17	34
	7-9	6	12

4.2 Knowledge on Work-Related Risks and Hazards

Training on occupational hazards and safety practices. In trying to find whether respondent have ever received training on occupational hazards 88% (44) of the respondents have not received training on occupational hazards practices in the health care facility while 12% (6) of the respondent have received training on Occupational hazards as indicated in Figure 1 below

Figure 1: Training on occupational hazards and safety practices

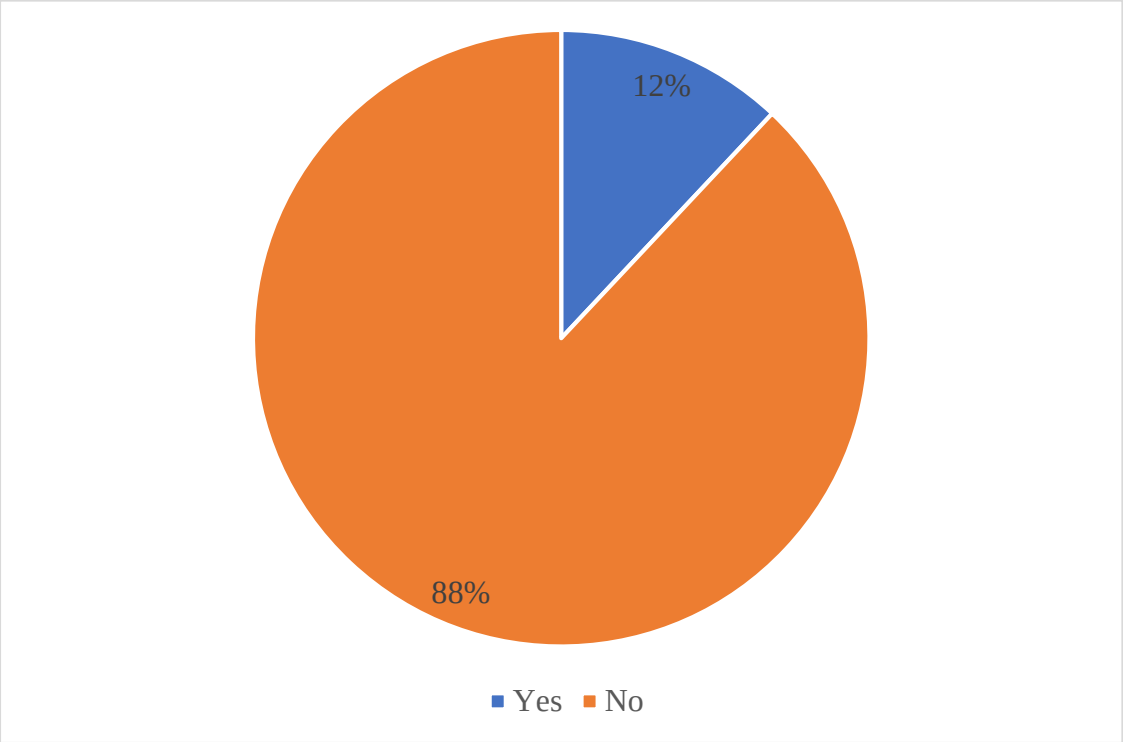

Table 2: Categories of occupational hazards.

In trying to assess the categories of respondents on occupational hazards, respondents were asked to mention the categories of occupational hazards, where multiple options were allowed, All the respondents (100%) mentioned biological hazards and physical hazards. 90% of the respondents mentioned chemical hazards and 86% of respondents mentioned ergonomic hazard. 72% of the respondents mentioned safety hazards as a category of occupational hazard.

Table 3: Causes of occupational hazards.

In trying to gain the insight into the knowledge of respondents, respondents were asked to mention the causes of occupational hazards, where multiple options were allowed a whopping 80% of the respondents mentioned trips and falls. 74% of the respondents mentioned long working hours. 56% of the respondents mentioned lack of equipment's. 40% of the respondents mentioned time pressure and stress as causes of occupational hazards. 38% mentioned radiation, 36% mentioned ignorance/lack of training, 28% mentioned exposure to body fluids, 26% mentioned exposure to hazardous substance, 20% mentioned noise, and other things mentioned were (poor workplace design, inadequate safety measures, lack of supervision, poor lighting and lack of guidelines).

4.3 Perception of Work-Related Risks and Hazards

Table 4: Respondents perception of work-related risks and hazards

In trying to find out the easiness of obtaining perception on work related risks and hazards, using High, Moderate and Low as follows. Most of the respondents perceived high susceptibility to 62% needle prick injuries and 60% direct contact with patients' fluid, 52% (26) of the respondents had low perception about assaults from patients. 50% of the respondents perceived high susceptibility to slipping and falling on slippery floors. 42% had high and 40% had moderate perception regarding susceptibility to circulatory abnormalities due to standing for long periods of time. 38% had high and 42% had moderate perception regarding susceptibility to exposure to radiation due to radioisotopes and x-rays as indicated in table 4.

Variable		High	Moderate	Low
Circulatory abnormalities due to standing for long periods of time	n	21	20	9
	%	42	40	18
Exposure to radiation due to radioisotopes and x-rays	n	19	21	10
	%	38	42	20
Slipping and falling on slippery floors	n	25	12	12
	%	50	24	24
Needle prick injuries	n	31	4	15
	%	62	8	30
Direct contact with patients' fluid	n	30	12	8
	%	60	24	16
Assaults from patients	n	17	8	26
	%	34	16	50

4.4 Attitude Towards Work-Related Risks and Hazards

Table 5: Attitude Towards Work-Related Risks and Hazards

In trying to access the attitude of respondents towards work-related risks and hazards. Respondents were assessed on ways of reducing risk of exposure to occupational hazard, 96% (48) of the respondents indicated that staff training and wearing protective equipment's is a way of reducing risk of exposure to occupational hazard. 4% (2) of the respondents indicated that avoid having constant interaction with patient's and relatives and reporting to work on time are ways of reducing risk of exposure to occupational hazard.

Respondents were assessed on situations which should warrant the wearing of gloves. A whopping 92% (46) of the respondents indicated that all invasive procedures such as injections, drawing blood, and setting IV infusions should warrant the wearing of gloves.

Only 8% (4) of the respondents cited that gloves should be worn when coming into contact with patient body fluids.

Respondents attitude towards when to perform hand washing was assessed. 94% (47) of the respondents indicated that handwashing should be performed before and after performing procedure and only 6% (3) of the respondents cited that, handwashing should be done only before performing procedure.

Variable	**Categories**	**Frequency (n)**	**Percentage (%)**
Ways of reducing risk of exposure to occupational hazard	Training and protective equipment's	48	96
	Avoid having constant interaction	1	2
	Reporting to work on time	1	2
Which situations should warrant the wearing of gloves?	procedures such as drawing blood	46	92
	contact with patient body fluids	4	8
	Laying of patient's bed	0	0
When to perform handwashing?	Only before performing procedure	3	6
	Before and after procedure	47	94

CHAPTER FIVE

DISCUSSION OF THE RESULTS

5.0 Introduction

In this chapter, the data analyzed in chapter four were interpreted based on scientific evidence. The findings are briefly discussed with references to support the study.

5.1 Discussions

5.1.1 Respondents Knowledge on Work-Related Risks and Hazards.

The respondents knowledge were assessed on the Work related hazard, it came out clearly that they have fair knowledge on the work related hazard as they were able to categorize as physical and biological, ergonomic and safety hazards (100%, 86% and 72% respectively) as well as the causes trips and falls, long working hours, and lack of equipment (80%, 70% and 56% respectively) just to mention but few, although they did not receive training. This might be as a result of their previous training or educational background. As their working experience they have worked for reasonable years, more than one year. In the same way, Bello et al. (2021) found that high proportions of the physiotherapists demonstrated adequate specific knowledge on physical hazards (89.3%) and ergonomic hazards (91.3%). Forty-Four participants (42.7%), cited the likely source of occupational hazards as body contact, 36(35.0%) reported air borne infection, and 22 (31.4%) alluded to bloody fluid as hazards. Aluko et al. (2019) found that Most respondents (99.7%) are aware of occupational hazards and are aware of physical hazards (82%), chemical (81.7%), biological (72, 4%), mechanical (63.8%) and ergonomics (33.8%).

5.1.2 Perception of Work-Related Risks and Hazards.

The respondents were assessed on their perception on work related risk and hazard and most of the respondents perceived high susceptibility to needle prick injuries and direct contact with patients fluid and majority of them said assault from patients does not often happen. The respondent perceived high to slipping and falling on slippery floors (50% respectively), 42% had high and 40% had moderate perception regarding susceptibility to circulatory abnormalities due to standing for long periods of time. 38% had high and 42% had moderate perception regarding susceptibility to exposure to radiation due to radioisotopes and x-rays. Consistently, a study by Yesilgul et al. (2018) found that circulatory abnormalities due to standing for long periods of time (74.0%), Injury from sharp objects such as needles (70%), exposure to radiation due to radioisotopes and x-rays (57.7%) and Slipping and falling on slippery floors (39.4%) were perceived as high risk by most respondents among the various occupational risks.

Again, Aluko et al. (2019) reported that staff perceived susceptibility from needle prick injuries (94.5%), direct contact with patients' fluid (92.4%) and assaults from patients (77.2%) as major hazards, while routine night shifts (59.3%) and body contact with patients having HIV (52.1%) were least considered as hazards.

5.1.3 Attitude Towards Work-Related Risks and Hazard

The respondent were assessed on their attitude towards work related risks and hazard and most of the respondents (98% respectively) indicated that wearing protective equipment's is a way of reducing risk of exposure to occupational hazard.

A whopping 92% (46) of the respondents indicated that all invasive procedures such as injections, drawing blood, and setting IV infusions should warrant the wearing of gloves and 94% (47) of the respondents indicated that handwashing should be performed before and

after performing procedure Consistently, Aluko et al. (2019) reported that 287 (99%) perceived staff training and provision of protective equipment as mandatory to reduce their risk of exposure to occupational hazard.

A whopping 92% (46) of the respondents indicated that all invasive procedures such as injections, drawing blood, and setting IV infusions should warrant the wearing of gloves and 94% (47) of the respondents indicated that handwashing should be performed before and after performing procedure. In the same way, Obono et al. (12019) found that most Healthcare Workers (93.6%) admitted that they wash their hands before carrying out any job and after completing the job. 90% of respondents put on personal protective equipment (PPE) before carrying out their job.

5.2 Conclusions

The study concluded that respondents have adequate knowledge on occupational hazards though respondents had no training after their previous education on occupational hazards. The overall perception of respondents on work-related risks and hazards was good. Their perceived susceptibility to needle prick injuries and direct contact with patients' fluid were very high. The respondents had good attitude towards work-related risks and hazards.

5.3 Recommendations

Based on the findings of the study, the following recommendations are made.

1. Management of the must train healthcare workers on Occupational Health and Safety practices.
2. Matron and ward in charges must also make sure that each shift is covered by enough nurses to prevent excessive fatigue among nurses and midwives.
3. Further studies must be undertaken on the effects of high nursing workload on work-related hazards.

REFERENCE

ALHazim, S. S., Al-Otaibi, S. T., & Herzallah, N. H. (2022). Knowledge, Attitudes, and Practices Regarding Ergonomic Hazards Among Healthcare Workers in a Saudi Government Hospital. *Journal of Multidisciplinary Healthcare, Volume 15*, 1771–1778. https://doi.org/10.2147/JMDH.S371361

Aluko, O. O., Adebayo, A. E., Adebisi, T. F., Ewegbemi, M. K., Abidoye, A. T., & Popoola, B. F. (2019). Knowledge, attitudes and perceptions of occupational hazards and safety practices in Nigerian healthcare workers. *BMC Research Notes, 9*(1), 71. https://doi.org/10.1186/s13104-016-1880-2

Amare, T. G., Tesfaye, T. T., Girmay, B., & Gebreagziabher, T. T. (2021). Exposure to Occupational Health Hazards Among Nursing and Midwifery Students During Clinical Practice. *Risk Management and Healthcare Policy, Volume 14*, 2211–2220. https://doi.org/10.2147/RMHP.S280555

Bello, A. I., Adu, J. B., Ndaa, P. O., Odole, A. C., Iyor, F. T., & Boakye, H. (2021). *Appraising the Knowledge, Perception, Attitude and Practice of Occupational Health and Safety among Physiotherapists in an Under-Staffed Healthcare Settings*. *11*(8), 9.

Bonsu, W. S., Adei, D., & Agyemang-Duah, W. (2020). Exposure to occupational hazards among bakers and their coping mechanisms in Ghana. *Cogent Medicine, 7*(1), 1825172. https://doi.org/10.1080/2331205X.2020.1825172

Clari, M., Garzaro, G., Di Maso, M., Donato, F., Godono, A., Paleologo, M., Dimonte, V., & Pira, E. (2019). Upper Limb Work-Related Musculoskeletal Disorders in Operating Room Nurses: A Multicenter Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, *16*(16), 2844. https://doi.org/10.3390/ijerph16162844

Cui, Y. (2021). Associations of individual-related and job-related risk factors with nonfatal occupational injury in the coal workers of Shanxi Province. *PLoS ONE, 10*(7).

Denge, T., & Rakhudu, M. (2022). Perceptions of nurses on occupational health hazards and safety practices in Ditsobotla public hospitals in North West province. *Curationis*, *45*(1), 2220. https://doi.org/10.4102/curationis.v45i1.2220

Hanvold, T. N., Kines, P., Nykänen, M., Thomée, S., Holte, K. A., Vuori, J., Wærsted, M., & Veiersted, K. B. (2019). Occupational Safety and Health Among Young Workers in the Nordic Countries: A Systematic Literature Review. *Safety and Health at Work*, *10*(1), 3–20. https://doi.org/10.1016/j.shaw.2018.12.003

He, Q., Wang, G., He, J., Wang, Y., Zhang, J., Luo, B., Chen, P., Luo, X., & Ren, J. (2022). Knowledge, attitude and practice regarding occupational protection against COVID-19 among midwives in China: A nationwide cross-sectional study. *International Journal of Disaster Risk Reduction*, *79*, 103184. https://doi.org/10.1016/j.ijdrr.2022.103184

Manyele, S., Ngonyani, H., & Eliakimu. (2020). The status of occupational safety among health service providers in hospitals in Botswana. *Tanzania Journal of Health Research.*, *13*(1).

Obono, M., Adeosun, S. A., Olaiya, P. A., & Adesina, A. (2019). *Assessment of the Knowledge, Attitudes and Perception of Potential Occupational Hazards by Healthcare Workers in a Tertiary Healthcare Facility in Lagos, Nigeria*. 22.

Ogbonnaya, G. (2019). A study on workplace violence against health workers in a Nigerian tertiary hospital. Nigerian. *Journal of Medicine: Journal of the National Association of Resident Doctors of Nigeria*, *3*(1).

Rai, R., El-Zaemey, S., Dorji, N., Rai, B. D., & Fritschi, L. (2021). Exposure to Occupational Hazards among Health Care Workers in Low- and Middle-Income Countries: A

Scoping Review. *International Journal of Environmental Research and Public Health*, *18*(5), 2603. https://doi.org/10.3390/ijerph18052603

Shamkh, S. S., Mohammed, A. H., & Al-Abedi, G. A. (2022). Occupational Hazards among Nurses at Primary Health Care Centers in Al-Amara City/ Iraq. *Bahrain Medical Bulletin*, *44*(1), 5.

World Health Organization. (2018). *Occupational related injuries*.

Yesilgul, G., Cicek, H. S., Avci, M. Z., & Huseyniklioglu, B. (2018). *Nurses' Knowledge Levels and Perceptions Regarding Occupational Risks and Hazards*. *11*(2), 7.

APPENDICES

QUESTIONNAIRE

Dear Respondent,

This questionnaire is designed to collect data on the topic: ‘‘**behavior and attitude on work-related risks and hazards among health personnel’s at Holy Family Hospital, Berekum**’’.

You are kindly requested to answer the questions below by indicating a tick or writing the appropriate answer when needed. Confidentially will be observed therefore your name is not needed in this research. Please answer the questions and you may decide to opt out anytime you feel like.

SECTION A: DEMOGRAPHIC DATA

1. Indicate your gender: (a) Male [] (b) Female []
2. Indicate your age at your last birthday: …….
3. What is your marital status? (a) Married [] (b) Single [] (c) Divorced [] (d) Widow/Widower []
4. Indicate your professional qualification…….
5. How many years have you worked? ……

SECTION B: KNOWLEDGE ON WORK-RELATED RISKS AND HAZARDS

6. Indicate whether or not you have ever received training on occupational hazards?

   ……..

7. Indicate the categories of occupational hazards

   …….

   …….

   …….

   …….

   …….

8. Give five (5) causes of occupational hazards

   …….

   …….

   …….

   …….

   …….

SECTION C: PERCEPTION OF WORK-RELATED RISKS AND HAZARDS

9. Indicate the level of your perceived susceptibility to the following work-related risks and hazards (High, Moderate and Low)
   a. Circulatory abnormalities due to standing for long periods of time

      …….

   b. Exposure to radiation due to radioisotopes and x-rays

      …….

   c. Slipping and falling on slippery floors

      ……

   d. Needle prick injuries

…….

e. Direct contact with patients' fluid

…….

f. Assaults from patients

…….

SECTION D: ATTITUDE TOWARDS WORK-RELATED RISKS AND HAZARDS.

10. Ways of reducing risk of exposure to occupational hazard

    a. Staff training and wearing protective equipment's []
    b. Avoid having constant interaction with patient's and relatives []
    c. Reporting to work on time []

11. Which situations should warrant the wearing of gloves?

    a. All invasive procedures such as injections, drawing blood, and setting IV infusions []
    b. When coming into contact with patient body fluids []
    c. Laying of patient's bed []

12. When to perform handwashing?

    a. Only before performing procedure []
    b. Before and after performing procedure []

NATIONAL CATHOLIC HEALTH SERVICE (DIOCESE OF SUNYANI)
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Our Ref. HFNMTC/GC/011/091923

Your Ref. .....

September 19, 2023

Date .....

The Nursing Administrator
Holy Family Hospital
P.O. Box 21
Berekum
Bono Region

Dear Nursing Administrator

PERMISSION TO CONDUCT RESEARCH

I wish to introduce to you the under listed names of final year students of the College:

1. Amooah Emmanuella Pokuaa
2. Twumwaa Lawrencia
3. Agyei Evelyn Kopri

As part of the pre-requisite for the award of Diploma in Nursing they are to conduct a research study, on the topic 'Behaviour and attitude on work related risks and hazards among health personnel's at Holy Family Hospital

I would be grateful if you could assist them with any material or help they may need to accomplish this task.

Thank you.

Yours sincerely

Ms. Martha Kyeremaa
Supervisor

For: Principal