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FACULTY OF HEALTH SCIENCES AND TECHNOLOGY
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ENUGU CAMPUS

TOPIC

OCCUPATIONAL HAZARDS IN NURSING: THE WAY OUT

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BY

UDENWEZE ONYEJI .S.
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SUPERVISOR: MRS. OKOLIE, U.

CO-ORDINATOR: MS EZENDUKA, P.O.

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OCCUPATIONAL HAZARDS IN NURSING:
THE WAY OUT
Dedication

Dedicated to Almighty God who strengthened me in this work.
Acknowledgement

I thank God almighty who enable me to understand what I put down on this paper.

I am indebted to Pastor and Mrs. Kennedy Oti for their moral and financial support. I am grateful to Mrs. C. Iwuagwu for her motherly care. Also to my late parents Mr. and Mrs. Mgbeudo Udenweze.

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UDENWEZE, O.S
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Abstract

The health environment contains many potential hazards, fall, flies and poisoning occur due to problems with equipment procedural errors. Nurses must also be aware of the risk to their own safety in health care environment, common risk to their exposure to blood born pathogens from needlestick injuries, as a result of heavy lifting. Threat of violence and assaults from clients and visitors have also emerged in recent years as a serious hazard for healthcare workers. The nurse should strive to assure safe and healthful working conditions such as hazard prevention, control and training on correct use of new devices.

This paper discusses various occupational hazards the nurse can encounter in her workplace and how to prevent the nurse from them. Recommendations were also made.
INTRODUCTION

Occupational health has gone through many developments and has been variously defined. It was only in (1992) that a joint world health organisation/international labour organisation committee offered a definition of the aim of occupational health which was accepted by the world community: According to Ashford, (1997), Occupational health is defined as the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations, the prevention among workers of departures from health caused by their working conditions.

He further stressed that the protection of workers in their employment from risk resulting from factors adverse to health. The placing and maintenance of the worker in an occupational environment adapted to his physical, psychological equipment and to summarize, the adaptation of work to man and each man to his jobs.

Clerc, (1997), stressed that occupational hazard/disease are classification according to their causal related factors: A worker may be exposed to the following types of hazards, depending upon his/her
occupation, such as physical, chemical, biological, mechanical, psychological, and ergonomics hazards.

Having all these in focus, we study these hazards as it affects the nursing profession, the way out and the way to prevent and control it.

OBJECTIVES OF THE PAPER

All the end of this seminar presentation, the audience should be able to:

1) explain the concept of occupational hazards nurses are exposed to in their work place
2) explain means of protecting nurses to infectious material
3) discuss measures to adopt in management of sharps as a means of preventing occupational hazards
4) discuss safety measures
OCCUPATIONAL HAZARDS NURSES ARE EXPOSED TO IN THEIR WORK PLACE

Ashford, 1997 stated that in nursing profession, the nurses are exposed to several hazards. These include:

- Physical occupational hazards
- Chemical occupational hazards
- Biological occupational hazards
- Mechanical occupational hazards
- Psychosocial hazard
- Ergonomics hazards

THE NURSES EXPOSURE TO PHYSICAL OCCUPATIONAL HAZARDS

The nurses are exposed to blood or other potentially infectious materials through contaminated work environments.

- Exposure to wet floors, and possible slips, trips and falls. Physical hazards could be informed of heat and cold, that is exposure to burns and cold at work.
LIGHT – The workers may be exposed to the risk of poor illumination or excessive brightness.

NOISE – The effect and non-auditory effect which consist of permanent hearing loss and nervousness, fatigue which interfere with communication by speech.

VIBRATION – Exposure to vibration may also produce injuries of the joints, hands and elbow others are ultraviolet radiation and ionizing radiation.

The nurses are exposed to contaminated sharps and containers from lack of trailing improper procedure and poor handling practices. Improper handling or disposal of sharps containers to over fill.

Exposure to needle stick injuries due to unsafe needle devices improver handling and disposal of needles.

EXPOSURE TO CHEMICAL HAZARDS

Arrington, (1993), emphasized that exposure to chemical hazards are on the increase with the introduction of new chemicals, some of these
chemical can cause dermatitis, eczema and even cancer by primary irritant action also inhalation of dust, gases and metals.

- Exposures to latex allergy from wearing latex grove
- Exposure to blood borne pathogens due to improper labeling of potential hazards like disposal of contaminated intravenous tubing and substances into a biohazards waste container.
- Exposure to concentrated solutions like disinfectant on the skin which can result to skin excoriation.

EXPOSURE TO BIOLOGICAL HAZARDS

Workers maybe exposed to infective and parasitic agents at the place of work.

- exposure to potentially fatal blood borne illnesses such as hepatitis B virus (HBV).

Hepatitis is much more transmissible than HIV and the risk of infection, as a result of the first joint WHO/ILO committee on occupational health in (1950). That 50% of the people with (HBV) infection are unaware that they have the virus. The case disease control
(CDC (1997) stated that HBV can survive for at least one week in dried blood or environmental surfaces or contaminated needles and instruments.

- Exposure to potentially fatal blood before illness such as HIV and the risk of HIV infection after needle stick is 1 in 3,000 or 0.3%. The CDC documented 55 cases and 136 possible cases of occupational HIV transmission to Nigeria Health care workers not exempting nurses, (1985 and 1999).

- Exposure to potentially blood illnesses such as hepatitis C Virus which is a major cause of chronic liver diseases.

This is the reason for liver transplants in the United state in (1997)

- Exposure to potentially illness like tuberculosis which occur as a result of improper disposal and inadequate immunization against airborne diseases.

EXPOSURE TO MECHANICAL OCCUPATIONAL HAZARDS

These are common in industry centre round machinery. The nurse can be exposed to electrical hazards including electric shock, electrocutions, fires
and explosions. Damaged electrical cords can lead to possible shock or
electrocutions. According to Clerc, (1997), a flexible electrical cords can
lead to possible damage by door or window edges, by staples and
fastening by equipment rolling over it, or simply by aging.

- Possible electrocution or electric shock or contact with electrical
  hazards from faulty electrical equipment/machinery wiring
- Exposure to blood and through other sharper like glass capillary
tubes that break when used may result in a penetrating wound and
  expose nurse to blood borne pathogenes.
- Disposable razors that could be contaminated with blood should be
  considered contaminated sharps’ and disposed properly in
  appropriate sharps containers.

EXPOSURE TO PSYCHOSOCIAL HAZARDS

This arises as a result of the workers failure to adapt to an alien
psychosocial environment.

- Exposure to unsafe workplace due to an effective safety and health
  program contaminated work surfaces.
EXPOSURE TO ERGONOMICS HAZARDS

Golrelzer, (1998), define Ergonomic hazard as the practice of designing equipment and work tasks to conforms to the capability of the worker. It provides a means for adjusting the work practices to prevent injuries before they occur. Many patients are totally depending on the Nurse to provide activities of daily living, such as dressing, bathing, feeding and toileting. Each of these activities involves multiple interactions with handling or transferring of patient and could result in employee injuries. Employee injuries lead to increased injury cost, increase sick injured days and staffing shortages. Also muscular skeletal disorder can result.

In addition, exposure of employee to community and nosocomial infections examples multi-resistant staphllococcus aureus (MRSA). Nosocomial infection are infection that occur from exposure to infectious organism found in facilities such as hospital instrument. The nurse can be exposed to these organism and can then become infected or carriers and spread the infection to other staff and patients.
WAYS TO HELP PROTECT NURSES FROM INFECTIONS MATERIALS.

Asogwa, (2000), expressed that the nurses should strive to assure safe and healthful working conditions through the use of an appropriate or approved disinfectant. The nurse should adhere with the following procedures:

- Washing of hands before and after work
- Before and after eating
- Before and after each patient contact
- Before and after putting on contact lenses.
- Before and after using the bathroom. Also wearing gloves, hand gloves plays an important role in reducing the risk of transmission of micro-organism.

GLOVES ARE WORN FOR 3 REASONS IN HOSPITAL:

- To provide a protective barrier and to prevent gross contamination of hands when touching blood, body fluid, and secretions etc.
- To reduce the likelihood that microorganism present on the hands of personnel will not be transmitted to patients during other
patients care procedures that involves touching patient mucous membranes and non intact skin

- The nurse should clean and prevent contact with blood borne pathogens standard, the nurse must determine and implement an appropriate written schedule for cleaning and methods of decontamination.

This written schedule must be based on the following

- Location within the facility
- Type of surface to be cleaned
- Type of soil present
- The tasks or procedure to be performed in the area

MEASURES IN MANAGEMENT OF SHARPS AS A MEANS OF PREVENTING OCCUPATIONAL HAZARDS

WHO, (2000), stated that nurse should comply with instructions by preventing, selecting and evaluating needle devices with safety features which include:

- Form a multidisciplinary term that includes workers to:
- Develop, implement and evaluate a plan to reduce needle sticks injuries and to evaluate needle devices with safety.

- To identify priorities based on assessment of how needle stick injuries are occurring pattern device use in the institution, and local and national data on injury and disease transmission trends.

- Conducts a product evaluation, making sure that the participants represent the scope of eventual product users. The following steps will contribute to a successful product evaluation:

  - To train health care workers in the use of new device
  
  - Conduct follow up to obtain informal feedback, identify problems and provide additional guidance.

SAFETY MEASURES

- Linda, (1995), stated that safer needle devices have built in a safety control devices, such as those that use self sheathing needle, to help prevent injuries before during and after use through safer deigns features.
- The CDC estimated in March, (2000), that 62 to 88 percent of sharp injuries in the hospital setting could be prevented by using medial devices

- Form a multidisciplinary term that include workers to develop, implement and evaluate a plan to reduce needle stick injuries and to evaluate needle devices with safety.

- To identify priorities based on assessment of how needle stick injuries are occurring patterns of device use in the institution, and local and national data on injury and disease transmission trends.

- To conduct a product evaluation making sure that the participants represents the scope of eventual product users.

The following steps will contribute to a successful product evaluation

- To train health care workers in the correct use of new devices.

- To conduct on site follow up to obtain informal feedback identify problems and provide additional guidance.
THE WAY OUT

This can be controlled through the following ways:

1. Control of hazards: ‘to identify and bring under control at the workplace all chemical, physical, mechanical, biological, and psychosocial agents that are known to be or suspected of being hazardous’.

2. Match suitable workers and jobs: ‘to ensure that the physical and mental demands imposed on people at work by their respective jobs are properly matched with their individual anatomical, physiological, and psychological capabilities, needs and limitations’.

3. Provide protection: ‘to provide effective measures to protect those who are especially vulnerable to adverse working conditions and also to raise their level of resistance’.

4. Improve the work environment: ‘to discover and improve work situations that may contribute to the overall ill health of workers in order to ensure that the burden of general illness in
different occupational groups is not increased over the community level’.

5. **Implementation of health policies:** ‘to educate management and workers to fulfill their responsibilities relevant to health protection and promotion’.

6. **Provision of occupational health:** ‘to carry out comprehensive in-plant health programmes dealing with man’s total health, which will assist public health authorities to raise the level of community health’.

In the above goals are in line with the ‘Health For All by the Year 2000’ which has been adopted by all countries of the World.

**RECOMMENDATION**

- A training programmes, designed and implemented by qualified personal should be in place to provide continual education and training about ergonomic hazards and controls to managers, supervisors, and all health care provides, including new employee orientation. Training should be updated and presented to employees as changes occur at the workplace.
- Written care plan that describes specific patient needs degrees of assistance required special treatment should be considered.

- Make available information concerning the correct installation and use of machinery and equipment and the correct use of substances, and information on hazard of machinery and equipment and dangerous properties of chemical substances and physical and biological agents or products, as well as instructions on how hazards are to be avoided.

- Issues approve regulations, codes of practices or other suitable provision on occupational safety and health and the working environment, account being taken of the links exciting between safety and health, on the one hand, and hours of work and rest breaks, on the other.

- Provide specific measures to prevent catastrophe, and to coordinate and make coherent the actions to be taken at different levels.
The enforcement of laws and regulations concerning occupational safety and health and the working environment shall be secured by an adequate and appropriate system of inspection.

**SUMMARY**

Occupational health has gone through many developments and has been variously defined. World health organisation (2001) accepted by the world community emphasized on the promotion and maintenance of the highest degree of physical mental and social well being of workers, in their working places. The nurse is exposed to several occupation hazards such as physical, chemical, biological, mechanical, psychosocial and ergonomic. Hence the nurse should prevent the exposure to risk factor by implementing on effective exposure control plan as required by the blood born pathogen standards. Also to develop information regarding the causes and preventing of occupational accidents and illness.
CONCLUSIONS

It cannot be stressed too strongly that the control of occupational hazards is a long term task, and that the closer it gets to the shop-floor level, the greater its effect will be. The further the distance from the safety and health conditions

Occupational risk control is more a matter of determination than of knowledge. The great majority of occupational accidents and a substantial proportion of occupational health injuries occurring today could have been avoided by the implementation of simple measures that have been common knowledge for many years.

These measures have long been occupational safety and health records, and these are also the undertaking that are well managed and have built up harmonious workers management relationship.
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Http://www.osha.gov/sltc/efools/nursing home

http://www.enforcement procedures for occupational exposure to blood borne pathogens standards osha.