The perceptions of occupational health nurses regarding needle stick injuries for health care workers in the eThekwini district health facilities.

by
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Declaration

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Abstract

The numbers of Health care workers that sustain needle stick injuries in the eThekwini District are increasing. The study was conducted to determine the perceptions of Occupational Health Nurses regarding needle stick injuries for health care workers in the eThekwini District Public Health Facilities.

The result indicated that the Professional Nurses of the eThekwini District Public Health Facilities are more exposed to needle stick injuries than other categories due to high workload. It also revealed that health care workers undergo lot of psychological trauma following needle stick injuries and there is an adequate space to implement the Occupational Health Program in Public Health Facilities.

Recommendations are made for the better treat nurses that suffer needle stick injuries.
Opsomming

Die aantal verpleegsters wat hulleself met naalde raaksteek en sodoende die risiko loop om geïnfekteer te word met die MIV-virus is besig om toe te neem in die eThekwini distrik.

Die doel van hierdie studie was om die persepsie van verpleegsters in die eThekwini distrik teenoor die risiko van naaldsteke te bepaal.

’n Spesiale vraelys is ontwikkel en onderhoude is met ‘n groot groep gesondheidswerkers gevoer. Die resultate van die ondersoek toon aan dat die gesondheidswerkers (en meer spesifiek die professionele verpleegsters) in die eThekwini distrik toenemend meer blootgestel word aan naaldsteke, hoofsaaklik as gevolg van die baie groot druk waaraan gesondheidswerkers blootgestel word.

Gesondheidswerkers ondervind hoë vlakke van trauma en stres indien hulle hierdie tipe beserings opdoen. Daar is egter ook bevind dat daar voldoende voorsiening gemaak is vir hierdie tipe beserings binne die distrik. Aanbevelings word nogtans gemaak oor wyse waarop nog beter aandag aan hierdie tipe besering by professionele verpleegster gegee kan word.
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Chapter 1. Introduction

According to Makary (2007) needle stick injuries among health care workers can result into psychological stress for health care providers and their loved ones since needle stick injuries causes a risk of HIV infection to health care providers. It is estimated that about 600 000 to 800 000 needle stick injuries and other percutaneous injuries are reported in US alone. These injuries further predispose health care workers to other diseases like Hepatitis B and C virus.

The World Health Organization estimates that the global burden of Occupational Exposure of the Hepatitis B and C is 40% and 2.5% of the HIV infection among Health Care Workers. Ninety percent of Occupational exposure occurs in the developing world.

South Africa faces an increasing rate of HIV infection and health care health care workers are among them, probably due to health care workers being exposed to HIV Occupational exposure resulted from needle stick injuries.

It is against this background that the study of the perception of Occupational Health Nurses regarding needle stick injuries for health care workers in the eThekwini District was conducted to identify the gaps in the implementation of the needle stick injury policy.

1.2. What are needle stick injuries?

There are many definitions of needle stick injuries. The Canadian Centre for Occupational Health and Safety define needle stick injuries as wounds caused by needles that accidentally puncture the skin. Needle stick injuries are hazard for people who work with hypodermic syringes and other needle equipment. The Canadian Centre further state that the injuries can occur at any time when people use or dispose needles.

1.2. Safer Practices

The World Health Organization urges countries to use safer practices to reduce needle stick injuries but this is not possible in all countries due to poverty, slow developing of policies and the general lack of funding to procure safer needles. There are universal precautions that are designed to protect health care workers from pathogens including blood borne viruses and these practices are standardized so that health care workers can follow them to prevent them from contracting communicable diseases. These practices include simple wearing of protective gloves when coming into contact with body fluid and mucous membrane.
1.3. Research Objectives and Aim

The research objective of this study was to determine the perceptions of Occupational Health Nurses within the eThekwini District Public Health Facilities. Such a study has never been conducted and there is very little knowledge on needle stick injuries in the District. This study will hopefully enable the District Management team to develop strategies to deal with needle stick injuries.

Chapter 2 of this document presents a literature review, chapter 3 deals with the research methodology followed and the target group. Chapter 4 presents the result of the study and chapter 5 presents final conclusions and recommendations.
Chapter 2. Literature Review

According to World Health Organization (2005) occupational exposure to blood can result from percutaneous injury (needle-stick or other sharp injury), mucocutaneous injury (slash of blood or other body fluids into the eyes, nose or mouth) or blood contact with non-intact skin. The most common form of occupational exposure to blood and the most likely to result in infection is the needle stick injury. The most common causes of the needle stick injury are from recapping and unsafe disposal of contaminated used sharps. Health workers in areas such as operating, delivery and emergency rooms and laboratories have a higher risk of exposure. Cleaners, waste collectors and others whose duties involve handling blood contamination items are also at risk.

2.1. A Health care worker

According to World Health Organization a health care worker is a person (e.g. nurse, physician, pharmacist, technician, mortician, dentist, student, contractor, attending clinician, and public safety worker, volunteer) whose activities involve contact with patients or other body fluids from patients.

2.2. Occupational Health Service

The Occupational Health Service Convention of 1985 (No. 161.) refers to health services at the workplace, which have an essentially preventive function. The OHS is responsible for advising the employer, as well as their workers and representatives, on how to establish and maintain a safe healthy working environment and on how to introduce work methods optimal to physical and mental health. OHS also provides advice on the adaption of work to the capabilities of workers in the light of their physical and mental health.

The ILO Occupational Safety and Health Convention No 155(13) and its recommendation provide for the adoption of a national Occupational Health and Safety Policy. It prescribed the actions needed at National and enterprise levels to promote a safe working environment.

2.3. Definition of an Occupational Health Nurse

According to World Health Organization (2006) an Occupational Health Nurse is a fully trained Registered Nurse. In addition to general Nursing education and training, the
Occupational Health nurse must have undertaken an additional period of formal study in occupational health leading to the recognized specialist qualification in occupational health nursing at a University.

2.4. Occupational Health and Safety Act 85 of 1993

The Occupational Health and Safety Act 85 of 1993 have set guidelines on hazardous Biological Agents to be followed under the following headings:

2.4.1. Information and Training

The employer must provide information and training to all staff that may be exposed to Hazardous Biological Agents. The Department of Health is partially complying with this standard as Occupational Health and Safety Training are continuously done within eThekwini District. There are however still some health facilities without safety officers to educate staff on correct handling of used sharps and disposing of used sharps and thus education of staff is still lacking.

2.4.2. Risk Assessments

The employer must conduct risk assessments to identify hazardous practices and processes in the work place so as to prevent workplace injuries. The eThekwini District Department of Health Facilities conducts risk assessments on a quarterly basis as laid down by the policy and hospitals have risk assessment teams and follow the universal standard in conducting risk assessments.

2.4.3. Incidence Investigations

Following an injury the employer must conduct incidence investigation to find the root cause of an accident and identify gaps in the existing controls so as to prevent future injuries.

The department of Labour had set a standard format on how incidence investigation should be carried out and the Department of Health adopted the standard format from the Department of Labour. The Department of Health has employed Safety Officers to carry out incidence investigations and take appropriate steps to mitigate hazards.
2.4.4. Reporting of Injuries at the work place.

The OHS Act requires employers to report all injuries that took place in the work place and, depending on the severity of the incidence. In the case of death, reporting is immediate and must be reporte telephonically to the Department of labour. Where there is no death, reporting is done using the relevant forms.

2.4.5. Protective Equipment

The Occupational Health and Safety Act no 85 of 1993 (Section 8) requires (under general duties of employers to their employees) the employer to provide protective working equipment to the employees. The latter is a challenge in that an employer may provide protective material but the workers may no use it correctly, for example you may find workers wearing N95 incorrectly and thus not protect themselves from communicable diseases.

2.5. The Role of Specialists Occupational Health Nurse in Public Hospitals

2.5.1. Prevention of Occupational injuries and diseases through pro-active occupational health and safety strategy.

The role of Occupational Health Nurse is the prevention of Occupational injuries and diseases through pro-active occupational health and safety strategies. Giving injections is an essential of providing medical care but it has a hazard to people who administer it and the occupational health nurse as a specialist in occupational health and safety must develop and implement programmes that ensure staff safety.

2.5.2. Provision of primary health care and also treating of Occupational diseases.

The Occupational Health Nurse is a clinician and she must first be registered as a professional nurse and then as an Occupational Health Nurse. In Occupational Health setting she provides primary health care to staff so as to treat diseases at a primary stage to prevent further complications and absenstism.

2.5.3. Conduct different medical surveillances as per work place need.

The Occupational Health Nurse has to conduct different medical surveillances and in Public Hospitals there are different medical surveillances that are conducted. There are cleaner
medicals as cleaners come to contacts with biological products. There are also radiographic medicals because of radiology exposure in X Ray Department. Staffs at high risk wards are also screened for TB as part of medical surveillance programme to ensure that they are treated early if they have contracted TB in the workplace.

2.5.4. Immunization of staff against Hepatitis B

The World Health Organization had set guidelines for immunization of staff at Public Hospital against Hepatitis B and all health care workers at public Hospitals follow these guidelines via the Occupational Health Clinic. The role of the Occupational Nurse is to ensure that all health care workers at high risks of contracting Hepatitis B are immunized against it.

2.5.5. Hazard Identification and Risk Assessment

The Occupational Health Nurses is a specialist in Occupational Health and Safety and her role as Occupational Health Nurse is to identify risk and put mitigating strategies to minimize the occurrence of injuries. The Department of health had adopted the universal standard of conducting risk assessment through risk assessment teams.

2.5.6. Investigation of occupational injuries and diseases.

The Occupational Health Nurse has a role of conducting incidence investigation as stipulated in the OHS Act 83 of 1985 and the aim of incidence investigation is to find the root cause of the incidence and prevent the re-occurrences.

2.5.7. Liaise with internal external partners for Occupational Claims

According to schedule 3 of the Occupational Health Act 83 of 1983, tuberculosis is an occupational disease to which workers are exposed in the work place. Public hospital tuberculosis is the main dominant Occupational diseases. The role of the occupational health nurse is to ensure that all occupational injuries and diseases are reported to the Department of Labour.

2.5.8. Post exposure prophylaxis

The Occupational Health nurse must provide post exposure prophylaxis to staff that have sustained needle stick injury and the antiretroviral treatment must be initiated within 72 hours
following needle stick injury. Post exposure prophylaxis has severe side effects and it is sometime difficult for health care workers to complete the full treatment regime.

The methodology used for the current study into the perceptions of Health Care workers will be discussed in chapter 3.
Chapter 3. Research Method

The research paradigm in this study was the qualitative method. This method enables the researcher to get a deeper understanding of the subject matter and is suitable for the problem that needs investigation.

3.1. Research Problem

The research problem of this study was the perceptions of Occupational Health Nurses on barriers in dealing with needle stick injuries at Public Health Institutions in the eThekwini District. There is no current knowledge on the perceptions of Occupational Health Nurses in dealing with the problem of needle injuries in the eThekwini District Public Health Facilities.

3.2. The research question

The research question was the Occupational Health Nurses perceptions on barriers in dealing with needle stick injuries at Public Health Care Facilities in the eThekwini District?

3.3. Significance of the Study

This study will hopefully assist in developing strategies to deal with needle stick injuries and time loss by the employer as most employees get sick leave due to side effects of antiretroviral given as prophylactic treatment.

3.4. Research Methodology

A qualitative research method was used and a semi structured interview was developed to gather information. This method assisted in obtaining facts from the interviewees and the researcher was always present during interviews so as to get clarity and better understanding.

3.5. Target Group

The study was conducted mainly on Occupational Health Nurses of the eThekwini District Hospitals and 18 Health Facilities in the eThekwini Health District were included in the sample. Not all of them agreed to be part of the study. About two third accepted the invitation to participate in the study and that was deemed to be enough to represent the other Occupational Health Nurses. The number of Occupational Health Nurses that participated in the study was 12.
3.6. Ethical Consideration

The study was not design to hurt anyone therefore a meeting was convened prior to the study to explain the purpose of the study. All participants were very interested about the study and consent forms were distributed among the participants to read at their own time so as to make decisions if they will want to be part of the study or not.

The participants had a full explanation about the purpose of the study and even on the day of the interview an appointment was made with the participants to get permission to do the interview.
Chapter 4. Results

The main results of this study were as follows:

4.1. Category at more risk

The study revealed that the incidence of nurses sustaining needle stick injuries is higher than other categories in the medical profession. Seventy-eight percent of the participants believe that professional nurses are more at risk of sustaining needle stick injuries than other categories; Twelve percent of participants believe that doctors are more at risk of sustaining needle stick injuries than other categories and 10% believe that other categories of health care workers (other than nurses) are more at risk of sustaining needle stick injuries. The respondent explained that there are a higher number of patients that need nursing care than the number of nurses to provide that nursing care. Nurses in public hospital have to provide nursing care for far more patients in the wards than in a private hospital. The nurse had to insert drips for intravenous fluids and intravenous medication while other categories of health care workers are not responsible for inserting drips and for giving injections.

Other than the above, the professional nurse is also responsible for other administrative duties in the ward. She had to see to it if there are enough resources to ensure day to day functioning of the department and she had to comply with many legislative and departmental policies.

Other than nursing care and insertion of drips, she had to attend to patient’s relative’s queries and complains in her department. The Centre for Diseases Control (CDC) states that needle stick injury is a major Occupational health and safety issue and nurses have a highest number of needle stick injuries than other categories.

In the United Kingdom about 48 percent of nurses have reported needle stick injury (CDC 2001)

4.2. Trauma

All Occupational health nurses believe that needle stick injuries causes trauma to health care workers. The study revealed that in one way or another needle stick injury causes trauma among health care workers. According to study trauma does not affect them only at work; trauma goes beyond the work place to such an extent that they fear to tell their partners that they had needle stick injury and they are exposed to HIV infection.

Trauma is sometime caused by fear of contracting HIV/AIDS and other health care workers will have a second needle stick within a month. This means that the exposure to HIV is high.

The study revealed that trauma is sometimes caused by exposure to ARV drugs and health care workers explained that ARV’s are very stressful and that it is even difficult to swallow them. Explain to their families that they are taking antiretroviral drugs from needle stick is also causing additional trauma. Trauma also impacts on their families since they have to
abstain from sex till they know that they did not contract HIV/AIDS from a needle stick injury.

4.3. Fear

Most respondents believe that Health care workers have a great fear of contracting HIV from patients and the respondents explained that health care workers fear contracting HIV AIDS and Hepatitis because most of the patients treated at public hospitals are HIV positive.

Some explain that fear is attributed by stigma that goes along with the intake of antiretroviral drugs. They have fear of undergoing HIV test as part of the DOH protocol following a needle stick injury

They explain that some health care workers visit Occupational Health Clinics in tears to report HIV exposure. It takes anything from half a day to seven days to counsel a health care worker following occupational exposure to HIV/AIDS. They fear that they will die from HIV. They also sometimes complain about the clinical condition of a patient that they have needle stick while in their care.

4.4. Prophylaxis Defaulter Rate

The questioner revealed that prophylactic defaulter rate is low. This may be true since people fear to contract HIV infection and the defaulter rate is caused by treatment side effect . Very few respondent believe that health care workers default treatment from other reasons.

4.5. Low morale following needle stick injury.

The questioner revealed that health care workers have low moral following needle stick injuries and most health care workers become absent at work following needle stick injuries.

4.6. Staff to manage Needle sticks injuries

Most respondent revealed that staff at Occupational Health Clinics is not enough and other respondent revealed that staff at occupational health clinic is enough to manage needle stick injuries.

Most respondents explained that the staff establishment at Occupational Health Clinic is low as compared to the number of Health care workers that attends Occupational Health Clinics. Currently the staff establishments state that there must be One Occupational Health Nurse at the Clinic, one Enrol Nurse, a general orderly that does the errands and a sessional doctor that works for two to four hours a day.

The above staff is not enough since they have to service the entire Hospital staff and nearby clinics. Prince Mshiyeni Memorial has more than 4000 staff members and has approximately 2000 health care workers that attend Occupational Health Clinic as per District Information System First Quarter 2011.
4.7. Department of Labour Compensation Office

The respondents felt that there must be a department of labour component within the Public Health Facilities like it is happening with Home Affairs. When the child is born he/she is straight away registered with Home Affairs within the Department of Health premises. When an employee sustains an injury on duty the Department of Health must report to the Department of Labour within the health premises straight away as it is happening with Home Affairs. At present this is done externally and the Occupational Health Clinics reports to Human Resources who then forward the forms to Department of labour. According to respondents this causes a shortfall as these forms sometimes do not reach the Department of Labour as they get delayed at the Human Resources Department.

4.8. Working Space

Most respondents explained that there is not enough working space in hospitals and Occupational Health Clinics are not taken seriously by Senior Management as they are allocated in small rooms. It is thus often difficult to offer counselling to staff following Occupational exposure to HIV and the environments at Occupational Health Clinics are not user friendly. There is no adequate space for record keeping since the OHS Act requires that records at Occupational Health Clinic must be kept for thirty years.

4.9. Stationery

Participants were asked if they have adequate stationary to deal with needle stick injuries. Most respondents stated that clinics have enough stationery in dealing with needle stick injuries. Those who said they have a problem stated that photo copying machines are in a pool rooms and they are allowed to do limited copies.

4.10. Communication

There are no computers in Occupational Health Clinics and in the wards thus making it difficult to communicate via e-mails when a large number of health care workers are required for needles stick injuries related issues.

4.11. Circulars and Policies

Most respondents explained that they don’t get circulars and policies from National, Provincial Offices in time due to lack of computers.
4.12. Employee Assistant Programme

The study revealed most staff do not undergo employee assistant programme following needle stick injury as employees become too busy with other work.

4.13. Investigation of all needle stick injuries

The study revealed that it is impossible to do incidents investigation following each and every needle stick injury because staff at occupational health clinics is inadequate.
Chapter 5. Conclusions and recommendations

The main finding of this study is that the enforcement of the Occupational Health and Safety practices can somehow reduce needle stick injuries. In the United States there have been reports that needle stick injuries are declining and this can be the results of the fact that they adhere to safe practices. Developing countries are still unable to reduce the number of needle stick injuries due to budgets constrains.

The issue of Occupational Health Clinics are of concern to the Department of Health and there is always a problem of space at facilities. Some of the clinics don’t even have separate consultations rooms to examine staff and one room is used for consultation and for administrative duties. Each Hospital Executive Management should budget for the improvement of Occupational Health Clinics and The Executive Management must ensure that there are enough health care workers to render quality service.

The following specific recommendation is made as a result of this study:

5.1. Procurement of Safe Needles

The circular for procurement of safe needles was distributed to facilities and according to Occupational Health Nurses this circular is not being implemented. The Department of Health Senior Management at the eThekwini District must visit the procurement department at health facilities to do monitoring and evaluation.

5.2. Integration of Services

There must be a Compensation for Disease Office in each and every Health Facility to provide proper administration of all Occupational Exposure cases.

5.3. Reporting to Hospital Senior Management Committees

There is a need for Occupational Health Nurses to report needle stick injuries to Executive Management in public hospital. This will highlight the dangers of exposing other workers to HIV infection and other communicable diseases like Hepatitis B and C.
References


Occupational Health and Safety Act no 85 of 1983


Addenda.

Addendum A

Interview questions used in study

1. Which category is more at risk of sustaining needle stick injuries?
2. Why do you say this category is at more risks?
3. Do health care workers present themselves with trauma in Occupational Health Clinic following needle stick injury?
4. Do health care workers have fear of contracting HIV/AIDS following needle stick injury?
5. What causes fear following needle stick injury?
6. What is the prophylactic defaulter rate at public health facilities?
7. If there is any Defaulter rate what causes staff to default from treatment?
8. Do employees show low morale following needle stick injury?
9. How do you know that health care workers have low moral after a needle stick injury?
10. Do you have enough staff to manage Needle stick injury in your facility?
11. Do you think that it will be better if we can have Department of Labour COIDA Office on Hospital Premises?
12. Do you think that you have enough work space to manage needle stick injuries?
13. Do you have enough stationery in dealing with needle stick injury in your facility?
14. Is communication with stakeholders effective?
15. Do you usually get needle stick circulars and policies in time?
16. Do staff that had needle stick injury undergo Employee Assistant Programme?
17. Does your clinic investigate all needle stick injuries as laid down by the OHS Act?