

CHAPTER ONE

INTRODUCTION AND BACKGROUND

Introduction

Work is part of the human being's livelihood. Some employees spend at least eight hours per day at work. This means that for these employees to continue being productive, their workplaces should be healthy and safe. According to Cole (1997; 139), "employees are individuals who, over a given time, invest a large proportion of their lives in their organisation. Thus much of their personal lives, as well as their role as employees, depend on the success or otherwise of the corporate strategy of the employer. In this situation one obvious role for personnel/human resource management (in organisations) is to ensure the fair treatment of employees, as important stakeholders in the organisation. To this extent human resource managers are assuming a protective role towards employees".

The study used the University Teaching Hospital as a case study. This chapter is divided as follows; the first part is a discussion on the Occupational Health and Safety (OHS) issue on the global, regional and local Zambian perspectives so as to give a background to the problem. This is followed by the statement of the problem, the objectives of the study, conceptual framework, literature review, rationale of the study and the methodology. The chapter also highlights the limitations of the study, as faced by the researcher during the course of the research.

Any business owner or employer has responsibilities regarding the health and safety of employees in the workplace. Even if one does not have any employees, one must ensure that one's business doesn't create health and safety problems for one's customers and the general public in the area of operation. The objective of occupational health and safety measures is to identify, prevent and eliminate work related sicknesses and injuries. Generally, Occupational Health and Safety procedures are important for three reasons: economic, legal and moral.

From an economic point of view OHS is very important in the sense that an organization that does not take OHS into consideration may pay highly if an accident occurred at the institution as a result of work stoppage, loss of lives, equipment damages, and loss of a good reputation. If the employees get sick the organisation suffers from increased absenteeism leading to loss of production time. In the event that accidents occur, the employing organization also incurs costs, such as loss of production time and decrease in the generation of profit, legal fees, penalties, compensatory damages, investigation time, and loss of good will from the public (poor health and safety may portray bad public relations). This may result in loss of clients and reduced employee motivation.

The employer has to consider the cost of accidents and work related illnesses and their impact on both the organisation and the employee. The cost of accidents to organisations is unnecessary and expensive but avoidable. Such avoidable payments are a cost because the resources used during accidents and illnesses could have been used in areas where it would have been worthwhile. Occupational Health and Safety help organizations and their members to avoid incurring huge financial losses in terms of medical bills, legal fees and compensation fees. Such cost can be avoided by putting proper Health and Safety measures.

Occupational Health and Safety administration at work places does not only ensure the employees are free from illnesses or accidents related to the workplaces but can also help the organisation to manage its financial resources effectively. Apart from compensation and legal fees, the organisation may have to incur huge maintenance or replacement costs in case of accidents that damage the equipment. For example when a boiler explosion at Ford's Rouge Power Plant in Germany killed six people and injured fourteen, Ford was slapped with a \$1.5 million fine and agreed to spend almost \$6million on instituting Health and Safety measure (Dessler: 2008). These expenses do not include the amount of compensation paid to the employees and relatives. Other indirect costs may include loss of morale by remaining workers who could have lost a close friend or colleague as a result of the accident, loss of production time due to absenteeism, maintenance time and time spent in court or with the authorities.

And from a legal perspective the OHS issue is an obligation. The OHS requirements are enshrined in civil laws in many countries. Health and Safety is an area where many states/governments intervene in the relationship between employers and employees (employee relations). Every employer should abide with the laws that the state/government has put in place to ensure the safety of the workers in their industries. Many governments have realized that poor occupational health and safety performance results in costs to both the state and organization for instance, through social security payments to the incapacitated, cost for medical treatment and loss of employability of the worker (citizen). Without the existence of laws on Health and Safety, putting in place OHS measures for some employers may be considered as an expense that merely increases the cost of production.

It is important to note that in reality it is almost impossible to eliminate the possibility of an accident occurring but it is still paramount that employers and employees make it their aim to ensure the health and safety at the workplace to enhance the prosperity of the organization.

As a moral obligation, it is expected that the employer will take care of the employee regardless of status or type of job. Issues of morality are relative and may imply different things to different people but the bottom line is that whatever the case may be, employers will be held responsible by society for the safety and health of the employees, the environment and the people that come to the premise of that organisation. Ethically, every employer has a moral obligation to ensure that the employees should not have to risk injury at the place of work, nor should others associated with the environment such as clients and business associates. Employers should provide protective clothing such as gloves, gumboots, masks, goggles, overcoats etc. They should also provide the necessary equipment required to do the job so that the worker does not have to improvise in order to avoid unnecessary accidents and also ensure that there is enough lighting for easy operation and good judgment.

In order to enhance Occupational Health and Safety in work places, among many other measures, the Zambian government put in place the Public Health and Factories Acts. These Acts contain regulations pertaining to sanitary facilities, solid waste disposal, damages, overcrowding, lighting, protective clothing, manual handling of heavy loads and ventilation at the work premises, among other things. The government also established the National Occupational Health and Safety Care Advisory Council and the Occupational Health and Safety Board of Zambia to advise and foster inter-sectional collaboration to promote workers education on matters concerning Occupational Health and Safety to reduce accidents at work and work related illnesses.

It is widely accepted that without extra encouragement from potential regulatory actions or litigations (i.e. government laws), many organizations would not act upon the implicated moral obligation to an Occupational Health and Safety environment. It is important to note that any measures taken can only minimize the occurrence of accidents and diseases. It is unlikely that risks and accidents can be eliminated 100%. This does not mean that nothing should be done to improve the health and safety in the work environment.

The issues of Occupational Health and Safety should not only be important to employers and the government. Employees also have an obligation to support their employers by abiding by, proposing or even demanding that regulations are put in place to ensure their safety and the safety of others. Employees should take reasonable care of their own health and safety at work and for that of others that are affected by their acts (Furnham, D: 1986). The employee has an obligation to ensure that they do not engage in dangerous activities, and to follow regulations on health and safety. He/she should also report anomalies in their work that could lead to accidents or illnesses and allow their employers to fulfill their obligation. This in turn will enable managers to know exactly what hazards and risks employees are exposed to in their line of duty and make well informed decisions.

Background

Globally, there has been an increasing number of work related accidents and illnesses over the past decade. According to Fedotov (1998), the International Labour Organisation (ILO) has estimated that 250 million occupational accidents and illnesses occur every year world wide and 335,000 of these accidents are fatal (i.e. result in death). Since many countries do not have a good and up to date data base, nor do they have effective reporting systems, it is likely that the actual statistics may even be higher”.

These incidences have taken toll in both developed and developing countries. In the early 2000s, over 2million workers in the United States of America (USA) have died annually and 4.7million fatal injuries and illnesses occurred resulting from accidents and poor working conditions in work places. These statistics may actually under estimate the real number of occupational illnesses and accidents due to unreported cases (Dessler: 2005). This problem is not a USA problem alone but a universal one. Information from the ILO shows that the number of fatal incidences is much higher in developing countries than developed ones due to poor or lack of health and safety programmes in the former. (ILO: 1995).

In Zambia, over 45 workers died in an explosion at BGRIMM Explosive Company in Chambeshi town on the Copper-belt on the 5th of May, 2005 (Chazinga M: 2005). On Saturday 24th December 2005, Zambia’s principal power station was affected by a mudslide following a heavy downpour. The mudslide was caused by torrential rains in the Namalundu area and they besieged the power station leading to its shut down. As a result of the mudslide, the generator flow and the pumping station were flooded with water and mud. The slurry pump could not pump as it was chocked by roots and muddy water (Energy Regulation Board: 2005). Even though there was no loss of lives, the equipment at the plant was damaged and the company lost a lot of production and operation time. These are just some of the incidences showing that workers have been in danger in their line of duty. Safety in the workplace is critical to the success of one’s business, no matter what size it is.

Every work place has its own hazards. UTH is not an exception. “Most hospitals are large, organizationally complex, system driven institutions employing large numbers of workers from different professional streams. They are also potentially hazardous workplaces and expose their workers to a wide range of physical, chemical, biological, ergonomical and psychological hazards. Thus Occupational Health and Safety issues relating to the personal safety and protection of its workers is a very important environmental health concern for hospitals. Hospitals also play an integral role in community protection through wider Public Health issues, including injury and illness prevention, health surveillance and disease notification, and disaster management” (Sadleir: 2009).

Health workers are exposed to many hazards and risks that could cause or bring harm to their health and safety. In Zambia it has been observed that the health workers are subjected to inhuman working conditions. For instance, the World health Organisation (WHO) recommended patient health worker ratio is 1:15 per shift but in most Zambia health institutions, one nurse may attend to more than 80 patients in a day (Bbaala: 2007). This health worker patient ratio is hazardous to ones’ health and is a very good agent of work related stress and opportunistic illnesses such as depression, backaches, and heart problems and so on. This is caused by the serious human resource shortages in the health sector. The Ministry of health has a 47% shortage of health workers (Ministry of Health: 2011). Health workers have not been spared from violence at the work place. Recently, there have also been a lot of reports on violence against health workers. Health workers have been threatening to down tools if the working environment in clinics, especially in Lusaka, does not improve. (Mweetwa, S and M Chazinga: 2005).

In hospitals many of the accidents and illnesses related to the work place usually go unreported. This is because of the mentality that health workers tend to have self-treatment. Some of these accidents and injuries have become acceptable and part of the job. This makes it very difficult to identify major causes of accidents. The health and safety issues have gained a lot of recognition in many ILO member countries. And this

has seen the job profile of those responsible for the health and safety of employees' increase.

Statement of the Problem

The Occupational Health and Safety issue has come a long way. It has an impact on every worker, every workplace, and those responsible for the health and safety of employees, have seen a change in their job profiles. With the enactment of the ILO regulations and the WHO Act on OHS, Factories Cap 441 and Public Health Acts Cap 295 of the Laws of Zambia and the establishment of the Occupational Health and Safety Board even in places like UTH, it was expected that, the working environment in organizations would be safe and healthy. Despite the existence of the Factories and Public Health Acts, bodies and occupational health programs being put in places, (such as protective clothing, washing of hands, isolation, and many others not mentioned) there are many occupational unhealthy and unsafe incidents occurring in health institutions in general and at the University Teaching Hospital in particular.

It is necessary to find out why there has been continuity in accident occurrence, as well as contraction of work related illnesses in health institutions. Hence the need to examine the effectiveness of the measures put in place at UTH in reducing the levels of occupational health and safety cases?

Objectives of Study

Main Objectives

To assess the effectiveness of OHS measures at UTH in improving the Health and Safety situation at the institution.

Specific Objectives of the study

1. To identify the OHS measures put in place at UTH.
2. To examine how OHS measures have been implemented
3. To assess the effectiveness of the health and safety measures in dealing with occupational infections and accidents

Research questions

1. What OHS measures have been put in place at UTH?
2. How effective is the implementation of OHS programme at UTH
3. How effective are the OHS measures in reducing infection and accidents

Conceptual framework

Occupational Health and Safety means “freedom” from illnesses or injuries attributed to occupational causes. Occupational medicine is the prevention, diagnosis and treatment of illnesses or adverse effects associated with the type of work. In an environment like the hospital, it is almost difficult to attain an environment that is 100% free from illness or accidents but it is possible to reduce their occurrence among employees and those closely related to the organization.

The two words ‘health’ and ‘safety’ mean different things to different people. In this study, “Safety” will be defined to be the control of recognized hazards to achieve an acceptable level of risk” (Oakes, C. G: 2009). “Health” is defined as: “a state of complete physical, social and mental well-being and not merely the absence of disease or infirmity” (Constitution of the World Health Organization: 1946). The maintenance and promotion of health is achieved through different combination of physical, mental, and social well-being, together sometimes referred to as the “health triangle.”

Occupational health is the prevention of ill health arising from working conditions while Occupational Safety is the prevention of accidents and minimizing the resulting loss and damage to persons and property.

As a compound phrase Occupational health and safety can be defined as the promotion 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; the protection of workers in employment from risks resulting from the factors adverse to health; the placing and maintenance of the work in occupational environment adapt to his or her physiological and psychological condition (ILO: 2005).

Health and safety issues are of critical importance from their individual point of view. The employee has the right to expect a healthy and safe working environment that is free from unnecessary hazards and risks, while the employer has the right to expect the employee to maintain a safe workplace by adhering to the health and safety regulations. A “hazard” is anything that can pose danger or harm if not controlled, while a “risk” is a combination of the probability that a particular outcome will occur and the severity of the harm involved (caused by the hazard). This has to be done to ensure the achievement of the organizations objectives, or purpose without unnecessary interruptions. To achieve this, it is inevitable that both parties in the organisation (employers and employees) work together to promote Health and Safety in workplaces.

Occupational health programmes refer to measures or processes put in place to protect workers from work related illnesses. “Occupational health should aim at: the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological capabilities; and, to summarize, the adaptation of work to man and of each man to his job" (Ladon,J:2006).

The author agrees with Armstrong (2010) when he states that, the risks and hazards that are found in work places can be categorized in a number of ways. There are; physical hazards, physical agents, chemical agents, biological agents and psychological issues.

- i. Physical hazards are those hazards that include slips, trips, and falls from heights, dangerous machinery, electricity and fire.
- ii. Physical agents may include noise, vibration and ionizing radiation.
- iii. Chemical hazards include solvents such as detergents acids and so on. These hazards are apparent at the hospital.

- iv. Psychological issues include work related stress whose causal factors are excessive work-loads, overwork, from violence from outside and within the organization, bullying, verbal and sexual harassment.
- v. Biological hazards include bacterial infections, work environment conditions, for instance room temperature, humidity, lighting, ventilation etc. Medical health workers are at risk of biological infections such as skin and eye infections on single exposure. In the study these referred to the various chemicals used by employees and exposed to other people who are in contact with the organization.

In order to have consistency and proper direction or guidance, organisations need to put in place Health and Safety policies at places of work. Health and Safety policies and programmes should be concerned with protecting employees and other people affected by what an organisation produces and what it does, against the hazards arising from their employment or their links with the organisation. These policies should address key issues relating to safety affecting or likely to affect the employees of that organisation, clients and other business partners of the organisation such as suppliers. Occupational health programmes deal with the prevention and treatment of ill health arising from working conditions. Safety programmes deal with the prevention of accidents and with minimizing the resulting loss and damage to persons and property.

Occupational health should not only be beneficial to the workers and organization but also beneficial to the public and communities in which the organizations operate. OHS is, therefore, a cross-sectional disciplinary area concerned with the safety and welfare of all people directly engaged in the work, as well as clients, visitors and suppliers. Hospitals have many stakeholders who need to be protected from the diseases and accidents within the hospital environment. In this study the focus area is on employees, their families and clients of a health care organisation.

Organizations should strive to attain an occupational healthy working environment for all. Organizations have a responsibility to ensure that their employees are working in an environment that is healthy and safe. It enables the organization to build loyalty and

enthusiasm among employees towards the achievement of organisational goals. A healthy and safe work place has a number of benefits to the organization. It helps the organization maintain a healthy workforce and is viewed to be a good corporate citizen by the government. Most of all a healthy workforce means a reduction in lost man-hours.

The above understanding of Occupational Health and Safety, hazards and risks classifications, will guide in the identification and assessment of the measures put in the University Teaching Hospital and how they have functioned to achieve intended objectives.

Literature Review

This section of the dissertation endeavours to review, and where necessary, compare published literature on health and safety relevant to this study.

According to Brenner (2004), the ability of employees within the organization to share knowledge throughout the system depends on the conditions of their environment. The survey revealed that corporate executives do not fully leverage their physical work environment to enable an increased collaboration, innovation and improved work effectiveness of the environment. He also acknowledges that employees tend to be more productive in well facilitated work environment and more so the quality of comfort derived from the work environment determines the level of satisfaction and productivity. Improved working environment enhances high productivity levels which are a major determinant of the organization's survival and growth.

However, this may not always translate into a healthy or safe workplace. Manager should not only concentrate on increasing production but should also focus on how safe the methods of production are for employees and clients to avoid accidents and illnesses. With regards to the cost of work related accidents and illnesses, NIOSH (2007) shows that in 2006 work related injuries and illnesses cost employers nearly \$87.6 billion on compensation. This is only the cost borne by the employer. The study also shows that in

2007 a total of 5488 US workers died from occupational injuries, while 4900 annual deaths were attributed to work related diseases. The families' losses cannot be quantified, as some of these losses were psychological, while the nation loses in the sense that the workability of an individual citizen is affected.

This literature showed how costly accidents and illnesses can be to both the organisation and the individual when health and safety are taken for granted. It provides an economic perspective to health and safety. The author of the report shows that accident and illness can be very expensive and that organisations (including hospitals) should take the issue seriously. The research, however, only brings out the economic effect of lack or poor Health and safety management but does not provide a comprehensive approach to avoiding or managing the cost.

In the case of the structure of health and safety and employee participation and training Kanawaty G (1992), states that these services need to be formalized. The essential feature should be a proper allocation of responsibilities within a structure which can ensure sustained action and a joint effort by employers and workers to maintain a safe and healthy working environment. The responsibility for safety and health in an enterprise cannot be isolated from day to day functions of management such as production and maintenance. This responsibility should be an integral aspect of the workplace and follow management structure from the senior executive to line managers.

The study also shows that encouraging unity among members of the organisation is the only way to ensure the cooperation among members of the organisation in the quest to achieve health and safety in the work place. The study was necessary for this study, as it brings out features of a successful OHS programme.

Kanawaty further alludes to the fact that education and training on employee safety and health matters should always be an integral part of training activities at any organisation regardless of size. These should be carried out in a way that the safety and health needs of the enterprise are constantly addressed at all levels, leading to positive action that will

tend to emphasizing solutions rather than merely the recognition of hazards. These activities are most significant and effective if they are in line with other management goals of the enterprise.

Another to a report by Winston G. et al (2002), focusing on participatory approaches (Health and Safety At Work: Trade union Perspective), shows that participatory approaches in occupational health and safety programmes in many work places around the world have clearly demonstrated how work place management can be strengthened through joint assessment, target setting, implementation and verification.

Like Kanawaty (1992), Winston et al (2002) perceived occupational health and safety to be the responsibility for both management and employee. It may be very difficult for the unions to achieve it alone because they do not own the work place. It is true that unions should be concerned but management has the prerogative to give orders and create conducive work environment. Trade unions can be a watch dog over health and safety and keep management on track. Therefore, occupational health and safety precautions should be a responsibility of both employers and employees.

According to findings of a research conducted by the Australian Nursing Foundation (ANF) (2007) it is very important to involve employees in decision making concerning matters that have to do with their health and safety. Consultation with employees and their representatives is a cornerstone of the Occupational Health and Safety, and is required to occur at both the broader policy level, as well as in the workplace. The key objective of the findings was the need to provide for the involvement of employees, employers, & their representative organisations in the formulation & implementation of health, safety & welfare standards. “Employers and employees should exchange information and ideas about risks to health and safety and measures that can be taken to eliminate or reduce those risks”. Employees are entitled, and should be encouraged, to be represented in relation to health and safety issues. Participatory workplace arrangements lead to improved OHS management practices that, in turn, can be linked to improved OHS outcomes.

The document is important because it brought out the fact that employee involvement is important in the effectiveness of health and safety management.

When attention is turned to the Regulation of Health and Safety, the importance of Laws cannot be over emphasized. Dessler (2002) states that despite the emphasis on occupational health and safety, apparently there are still many employers who take safety less seriously than they should. This prompted the United States Congress to pass a law to enforce and compel employers to practice occupational health and safety at the work place. The Occupational Health and Safety Act was enacted in 1970. It seeks to ensure that as far much as possible, every working man or woman in the nation (United States) has safe and healthy working conditions and preserve human resource. However, the Act does not include self employed persons. To ensure that the policy is fully enforced, the United States government set up the Occupational Health and Safety Act (OHSA) Office which inspects and receives complaints on OHSA violations. This illustrates that occupational health and safety are not only an issue that concern companies and organizations but also governments.

As far as Risk Assessment is concerned, a survey at Duport Company in Germany (Dessler, G: 2005) showed that there have been organizations that have benefited from taking occupational health safety precautions in their operations. For Duport Plant, to ensure that the workplace is safe, each morning the director of the company and his assistants meet first thing in the morning to review the past 24 hours. The first thing they discuss is not production but safety. Only after they have examined the report on accident and near misses and are satisfied that the corrections have been made, do they move on to look out-put. This has led to a reduction of accident rates at the chemical manufacturing industry.

The report shows how accidents can be avoided in a workplace if management's priorities include workers safety and health, rather than profits alone. However, it does

not state what type of measures was put in place so that other institutions can take a leaf from such actions as the one undertaken by Duport.

Dessler also talks about an assessment that was conducted on an international company called FedEx that has taken strict measures against occupational injuries. It follows the OSHA noise guidelines. As FedEx management frequently monitors noise levels, hearing level testing is also conducted. All employees are provided with earmuffs when dragging air freight containers through the fuselage of a plane. No employee is allowed to work without proper protective head gear. Management should take a leading role in ensuring safety at workplaces. This is so because in most cases employers remain liable for penalties for any accident or work related illness suffered by employees. Dessler also emphasized that employers should put in place conditions that forbid employees who do not follow safety regulations from carrying out any work. Employees who refuse to follow safety regulations should be severely dealt with. In other words, employees should sign an agreement that they will adhere to all safety regulations.

In an effort to assess the extent of employer efforts in planning adequate safety and health measures for healthcare workers, a group of unions conducted a pandemic flu preparedness survey Healthcare Workers in Peril: Preparing to Protect Worker Health and Safety during the Pandemic Influenza (2009) to assess the level of employer preparedness on a facility basis. The survey was conducted in the United States by union leaders across the country who represent healthcare workers in unionized facilities. One hundred and four (104) facility surveys were collected by six unions in fourteen (14) states.

The report indicates that health care facilities have made some progress in preparing for an influenza pandemic but much more needs to be done. More than one-third of the respondents believe their workplace is either not ready or only slightly ready to address the health and safety needs necessary to protect healthcare workers during a pandemic. Given this lack of readiness, 43 percent of respondents believed that most or some of their fellow workers will stay home. One-third of the facilities had yet to develop a

written plan for responding to pandemic flu and only 54 percent of the facilities have identified healthcare workers who will be at some risk of occupational exposure to the pandemic flu virus. Less than half the facilities surveyed (43 percent) have provided pandemic flu training to their workers, one of the fundamental elements of protecting workers from occupational hazards.

The research brings the importance of one's perception towards the measures that are put in improving the effectiveness of the programme and how it affects an individual's readiness to cooperate and perform their duties. This information is important in the management of health and safety at any institution. However, the research does not provide an answer to what a health and safety programme should contain in order for it to be effective.

A survey was conducted by Maryland Occupational Safety and Health, in conjunction with the United States Department of Labor and Bureau Labor Statistics Department, on The Frequency of Injuries at the Work Place on an Annual Basis, (2006) the report shows that an average of 4200 accidents occurred each year in the agriculture, mining and construction industries. The study brings out the awareness that employees and employers should take extra precautions in order to avoid fatal accidents. The study shows that the effects of occupational accidents have greater cost on the work force and the companies involved.

A survey was conducted on workers health and safety in Britain by Hodgson et al (2005) Workplace Health and Safety Survey Programme: 2005 Worker Survey First report. It details findings of a survey conducted on 10,000 workers between August and December 2005. The report lays its emphasis on the number of employees exposed to different workplace hazards, on the concerns regarding training and on views about trends in the nature of risks.

The research categorizes the hazards according to the most widely spread hazards to the least. According to their findings, the most wide spread hazard is stress with 20% of the workforce expressing concern that stress could cause them harm. Stress accounted for

the largest portion of hazards that have a negative effect on the workers well being. Of all the causes of work related illness, stress accounted for 79%. The next most prevalent being lifting or carrying of heavy loads, slipping or tripping and dust or fume exposure, each representing 9% of the working population.

One out of every 14 workers (an estimated 7.1%) expressed concern about being physically attacked by members of the public while at work. This rate may have been reduced, as the question was only asked to respondents who had experienced threats or an attack during the past year before the survey was conducted.

The research also summarizes top level findings on health and safety representation, occupational health provision and self-reported work related injury and illness. It showed that many employees were aware of the measures that were put in place to ensure the safety and health of the workers in the work place.

The study shows the prevalence of workplace hazards and hence the need for health and safety management in workplaces in general. However, it is from a general perspective and not specific to health institutions.

According to a survey conducted by Dr D B Shire (1993) Health Hazard in Medical Institutions most large hospitals have services that can be compared to those of a small town; with administration, food services, housekeeping, power generation, garbage disposal and incineration mechanical and transportation services. All these services in the provision of health care have inherent occupational health hazards. These health concerns are either mechanical, traumatic or stress related. He identified many health hazards that are common to health professionals.

These were HIV, Hepatitis, influenza, childhood diseases (chicken pox, measles) low back pain, dermatitis, air quality, violence (common in emergency rooms, psychiatric wards, parking lots and dark corridors) and ethylene oxide (a sterilizer which is potentially an explosive gas). According to the study the most worrying hazards to the health professional is the acquired infections, particularly Aids and Hepatitis B although

they may not be the most frequent health hazard that health workers are exposed to. But as HIV positive patients increase so does the risk to health professionals.

The study brought out the many health hazards that are a concern in any health institution, including UTH and the information was important in understanding Occupational Health in hospitals. However, it does not show what measures can be put in place and if these measures are effective hence the need for the study.

According to a research conducted by NIOSH Occupational Hazards in Home Healthcare (2007), healthcare workers are frequently exposed to a variety of potentially serious or even life-threatening hazards. These dangers include overexertion; stress; guns and other weapons; illegal drugs; verbal abuse and other forms of violence in the home or community; blood borne pathogens; needle sticks; latex sensitivity; temperature extremes; unhygienic conditions, including lack of water, unclean or hostile animals, and animal waste. Commuting long distances from worksite to worksite also expose the home healthcare worker to transportation-related risks.

The study gives a general view of the health hazards that may affect healthcare providers in any environment but not specific to the Zambian situation but it does not provide solution to the problems relating to OHS.

Coming home, the Zambian situation is addressed by a number of writers. In the Human Resources for Health Strategic Plan (2006-2011), the Ministry of Health(2005) states that despite the numerous efforts since 1991 by the government of the Republic of Zambia to improve healthcare delivery, one of the major obstacles to the attainment of millennium development goals has been the shortages in health workers in public institutions, UTH inclusive.

According to the report the problem of staff shortages goes beyond numbers and the overall head count as there are severe staffing imbalances in terms of numbers, skills, skill-mix and geographical distribution. Distributional imbalances are caused by rural urban disparity, weak posting procedures, personal preferences and socio economic

considerations. Even the statistics given about health workers may not be correct, as some of these health professionals may be in managerial and administrative positions, rather than providing the actual health care activities, they are performing support services. This means that the number of doctors and nurses that are really serving the clients in these health institutions is reduced. Such shortages are likely to lead to stress as the current employees doing the core activities in the hospital are over loaded. Stress is a big factor that leads to accidents and ill health among workers.

According to the Ministry of Health 2011 action Plan (2011), the health sector has a human resource problem. The plan stipulates that the main constraint affecting human resource includes lack of a comprehensive strategy or policy and coordination framework specifying mechanisms for community health workers, high staff attrition rates, poor distribution, low training output, inadequate funding for recruitment and retention and long bureaucratic employment process.

The reports show that shortages of workers constitute a very important bottleneck to service delivery. Less than 50% of frontline health workers (i.e. nurses, midwives, clinical officers and environmental health technologist) are available in relation to the need to provide primary health services. The literature shows some of the challenges that exist in the Zambian health sector that have an impact on the workers chances of becoming stressed. The reports identify one of the major health hazards-stress. This is as a result of work overload, one of the challenges faced by most public health institutions in Zambia. However it does not bring out what measure are needed to improve the situation in health institutions.

Another study conducted by Bbaala (2007), shows that shortages in the number of health professionals are a problem to reckon with in the delivery of healthcare in Zambia. The study shows that 98.5% of Health professionals interviewed felt that they were overloaded with work due to staff shortages. They revealed that they were attending to more patients than they needed in order for them to remain efficient. Bbaala further pointed out that, in order to improve the human resource situation at the hospital, the

management had opted to increase the number of part-time staff. He also found out that the major composition of the part-time staff constituted health professionals who were already working on fulltime elsewhere and in their spare time rendered their services to UTH to get additional remuneration.

The research provides information on one of the causes of poor health and safety and service delivery. It also provides information that management at UTH has put in measures to improve the problem of shortages. However, it does not show whether these measures instituted have been successful. This is what prompted the researcher to consider looking into the effectiveness of the OHS measures at the institution.

A report done by the Centre for Health, Science and Social Research (CHESSORE Human Resource Management in the Ministry of Health: 2007) shows that Human Resource Management in the ministry was lacking in the area of Occupational Health and Safety. The report points out that, the ministry has put in place measures to create a safe working environment such as, wearing of gloves and masks in laboratories and theatres. Nurses are expected to wear flat shoes to avoid slips and a drug is prescribed in case of accidental pricks. The report also points out some of the hazards associated with the health industry, for instance, violence due to poor security systems, ventilation, lack of equipment, and stress from long and excessive work-loads. The study was conducted to review Human Resource Management. However, the study does not evaluate the measures that have been put in place to see whether these steps are effective or not. It does not refer to any institution in particular, hence cannot provide insight on what kind of measures should be put in place for which type of health institution.

The Pneumonias Department under Occupational Health and Safety Management Board (2006) conducted a survey on the copper belt. It was focused on occupational health and safety at BGRIMM Explosive Company after the fateful accident that left over 50 employees dead. It assessed the damage that the explosive caused on the work force and the operation of neighboring industries. The main point brought out by the study is that there is need for employees to wear protective clothing whenever they operate in

dangerous work places. According to the death record, none of the dead victims was in management. This brings out the fact that though managers can also be affected by hazardous work environment, it is the ordinary workers that are mostly exposed to them (hazards).

Siziya et al (2010) conducted a study on Compensation Patterns Following Occupational Injuries in Zambia. The study was conducted to estimate the prevalence rates of occupational injuries and compensation; and to determine factors associated with occupational injuries and compensation. The research concluded that workers who have control over the arrangement of their workplaces are less likely to be affected by injury or illnesses related to their work. The research also reveals that although 60.5% of all injured participants reported staying away from work because of workplace injury, only 5.5% of the respondents received compensation.

The research also showed that workers who were paid were more likely to be injured than unpaid family workers. There are several possible reasons why this may be the case. One of them being that it is possible that unpaid family workers may have some control over their environments if working in their own homes, but those working in factories rely on provision of safety by their employers. Therefore, those in control should take keen interest in ensuring safety and health at work.

Information obtained from a report done by the Labour Force Survey (LFS) Occupational Injuries in Zambia: Results From the 2009 Labour Survey (2009), shows that data on occupational injuries is scarce and unreliable in Zambia, and it is, therefore, difficult for stakeholders (Government, employees or employers) to estimate their health and socio-economic impacts and target or assess the efficacy of interventions. The Zambia LFS is conducted, as a nationally representative survey using a series of cross sectional studies over time. It was designed to measure the labour market and to provide key indicators of the labour market such as unemployment, underemployment, and hours of work. Among its objectives was the profiling of occupational health and safety (OHS) in the region and, for this purpose, the generation of data to supplement the scarce data available.

According to this report, while data is routinely collected in Zambia through accident notifications to the Ministry of Labour and Social Security, and Worker's Compensation Fund, there is widespread underreporting of cases, and until now there has not been a regular system of supplementary or corroborative data such as the annual surveys carried out in Scandinavia or elsewhere. Only 14 fatal occupational injuries from Zambia were reported to the International Labour Organisation (ILO) in 2000. This information was underestimated due to the large numbers of accidents that are unreported in this country

The lesson that can be learnt from the literature is that it is important to know the kind of hazards that are associated with each particular industry. It also shows that if proper measures are put in place many accidents can be avoided. Most of this literature is focused on industries such as agriculture, mining and construction. Occupational health and safety is a means to an end. The literature also shows that in every situation, for an organization to thrive there is need for workers to be in good health.

The literature above has been helpful in showing the various hazards and risks that workers in most organisational setups are exposed to and how they have been dealt with. It has also indicated that the issue of health and safety is not one that can be left to one stakeholder, the employer or employee, but it should be considered as collaboration among all stakeholders involved or affected by what the organisation does.

Even though there is literature providing information on Occupational Health and Safety in workplaces, most of the literature is not directly related to health and safety in hospitals in general or the University Teaching Hospital in particular. The information does not give a specific answer to questions that relate to the performance of health and safety measures at the University teaching Hospital. Therefore, this study was different as it was conducted to highlight issues of occupational health and safety in hospitals to fill that gap in knowledge. Nevertheless, the literature provides a basis for this research.

Rationale

UTH was selected because it is the country's largest hospital and that it has the largest number of health workers that can provide a representation of the situation in Zambian hospitals.

This study was significant because it generated an understanding of how employees at UTH in particular (and in other hospitals in general) work and identify the kinds of hazards that are faced at the institution and other institutions of the same nature. It also brings out issues that need to be revisited to ensure a healthy and safe environment for all medical workers in general and at UTH in particular. The information obtained by the researcher will also help management at UTH to be aware of the OHS needs that employees perceive management should improve upon. This is vital for policy formulation at the institution. The study also carried out an OHS performance evaluation based on the current prevailing measures at the institution. The information generated will also be useful to students and lecturers and policy makers by broadening their understanding of occupational health and safety and provide data for rational decision making.

Methodology

Research design

The researcher collected and applied both quantitative and qualitative research approaches in order to compensate any inadequacies that may inherently be embodied in any one of the two approaches. The research was evaluative in nature.

Source of Data

This study used primary and secondary data. Primary data was collected through the use of personal interviews, observation and self administered questionnaires. Secondary data was collected through consultation of various documents and literature on the subject of concern. The two types of data were used to complement each other.

Sampling Method

The study used purposive and stratified sampling methods. Purposive sampling is a method where units in the sample are selected purposively for judgment by the researcher. This method was used to select respondents who are members of the Board or managers and the Trade Unions, while stratified sampling was used to get information from University Teaching Hospital employees. Stratified sampling is a sampling method where the population is divided into strata then certain numbers are taken from each group on random basis. A total number of 130 questionnaires were administered and 40 clients interviewed.

Practically the distribution was as follows:

- 22 doctors/ surgeons
- 18 clinical officers
- 22nurses including mid-wives
- 25 environmental health Technicians
- 12 physiotherapists
- 17 General workers (cleaners, , gardeners, maids)
- 7 mortuary attendants
- 6 clerks
- 1 social worker
- 6 guards
- 25 paramedics

Oral interviews were conducted on the following:

- 10 out patients
- 15 in patients
- 15 people who were waiting by the bed side.

It is important to note that;

1. OHS affects and is affected by those who are not members of the institution but have contact with the institution in one way or the other. However, this research was limited largely to staff of UTH and those directly linked to it.

2. Although “Occupational Health” and “Occupational Safety” are intricately interconnected and normally inseparable, in this dissertation they are artificially separated for analytical purposes only.

Data Collection

The main data collection instruments used in this research were questionnaires (see Appendix 1 and 2) personal (Oral) interviews and observations. Two types of questionnaires were designed for the study; one for those in administration/management and the other for employees working at the hospital. The researcher also conducted some observation on the adherence to health and safety regulations and the availability of safety requirements at the institution. The researcher also carried out some oral interviews through Focus Group Discussions (FGDs) on clients at the hospital (see Appendix 3 for interview guide). FGDs were used to enable respondents to freely and easily express themselves in their own language.

The questionnaires were personally administered to selected respondents according to the selected sampling method stated above. Discussions from focus groups were recorded on a tape recorder and later on translated from various Zambian languages into English (where necessary) for analysis.

Data Analysis

The study used manual analysis for data collected from observations and personal oral interviews. For data collected through questionnaires, the Statistical Package for Social Sciences (SPSS) was used for analysis. SPSS was picked as one of the analysis instruments because the research was an evaluative research involving comparisons between what was and what should have been.

The data analyzed using SPSS has been presented using frequencies. Frequencies present counts and percentages of variables. However, because this was an evaluation research, it involved a comparison on whether the findings showed or did not show the expected results from the occupational measures put in place at the institution (UTH).

The information from the FGDs was analysed using a metrics table and presented in graphs using Microsoft excel.

Limitations of the Study

Financial constraints were a limitation which led to the delay in completion of the entire research. Other challenges included the respondent's busy schedule which also increased the number of unanswered questionnaires, as well as the duration for data collection in relation to the researcher's plan. These to some extent affected the quality and validity of the research results but as in every research endeavour, they were unavoidable.

Organisation of the Dissertation

This document is organized as follows: Chapter one gives an introduction to the topic. It outlines the background to the study and highlights the objectives, methodology used and the rationale of the study. The chapter also addresses the conceptual framework, literature review and limitations of the study. Chapter two gives a description of the study area. Chapter three is an analysis of data on occupational Health at UTH while Chapter four gives an analysis of occupational safety at the hospital. Lastly, Chapter five gives the main conclusions of the study drawn from the findings and recommendations are made thereafter.

CHAPTER TWO

CONTEXT OF THE STUDY

Introduction

In this chapter we discuss the context in which the study was undertaken. The chapter covers the historical, geographical, demographical and economical background of the study area.

Zambia is a land locked country in South Central Africa. She is surrounded by eight neighbouring countries which include Malawi, Namibia, Mozambique, Botswana, Democratic Republic of Congo (DRC), Tanzania, Zimbabwe and Angola. The country was previously called Northern Rhodesia. She attained its independence on the 24th of October 1964 from Britain. Most of Zambia's land is undeveloped covered with natural forest and savanna grasslands. The climate has three distinct seasons (hot and dry, cold and dry and wet and warm/hot seasons).

The Zambian economy has mainly been dependent on the copper mining activity. "Between 1965 and 1974 real GDP grew at an annual rate of 2.3%. However, due to both external and internal factors the GDP has on an average been declining. The external factors included the world recession of the early 1970s and the oil crisis, and the unfavourable terms of trade that resulted mainly from the decline in copper prices." (Mwikisa: 1999) At the time of writing this thesis the government has been emphasizing the development of agriculture to supplement the country's economy, considering the unreliability of copper prices and copper being a diminishing resource. Zambia has an approximated population of about fourteen million people.

At the time of this investigation Zambia is divided into nine provinces Northern, Southern, Eastern, Western, North-Western, Copper belt, Lusaka, Central and Luapula Provinces. It has 72 districts and its capital is in Lusaka. For administrative purposes Zambia has several ministries and departments which include the Ministry of Health.

The Ministry of Health (MoH) is the “department” concerned with the management and provision of health care in Zambia. The Zambian government provides the largest portion of health care in the country through public health institutions. With liberalization of the economy, there are several private clinics and hospitals that have been established throughout the country.

“The Ministry aims to address and share ideas with the public on various topics in the health field and related services under the vision of providing the people of Zambia with equity of access to cost effective, quality healthcare, as close to the family as possible. The public health sector has taken significant steps towards meeting the objectives of the health reforms, particularly in improving access to health care, afford-ability of health services and health systems strengthening.” (Mwikisa: 1999 p3) The Zambian government has been under significant pressure to reduce the disease burden, improve the health status of Zambians, as well as accelerate the attainment of the Millennium Development Goals (MDGs). The Ministry is responsible for ensuring that healthcare in Zambia is characterised by good clinical outcomes and professional standards, and that services delivered are appropriate to each patient’s needs. While the ministry emphasizes the principle of co-payment, it also ensures that healthcare remains affordable to Zambians.

The Ministry of Health has health facilities that aim at delivering health care to the community classified as either hospitals, Health Centres or Health Posts. The hospitals are divided into three categories namely; Level 1 hospitals at District level also known as the primary level hospital, Level 2 hospitals at Provincial level also referred to as secondary hospitals and Level 3 hospitals also referred to as tertiary hospitals at the central level. The intensity of care also differs as the hospital level changes. The referral system also comes in as soon as these levels of care are adhered to. The University Teaching Hospital is a level 3 hospital.

The University Teaching Hospital (UTH) was formerly known as Lusaka Hospital and was situated near the crossroad of the rail line and Great East Road. Lusaka hospital

began in 1910. It is the largest hospital in Zambia catering for all referrals from the other provinces in the country. (www.uth.gov.zm)

In 1934, there were six wards with thirty beds in each, two for male surgical, two for male medical, one for all female cases and one for children. These wards had no heating facilities apart from an open fire place in the corridor and no hot water taps. There was only one tap for cold water in each of the ward. Each building had two showers with cold water and two toilets. (www.uth.gov.zm/history)

In 1935 the present pediatric clinic (A Block) was built as a Hospital for Europeans. It had a male ward, female ward children's ward and a small maternity, now called AO4 Nursery. There were big rooms for VIPs and the call lights can still be seen outside the doors today. Outpatient services were erratic. The department was only operational from 08:00 to 10:00hrs and 14:00 to 15:00hrs. (www.uth.gov.zm)

In 1939 a new maternity wing was added to the existing structure (now AO2). This accommodated at least ten patients. During the same year, Lusaka Hospital became a training school for medical assistants (clinical Officers). For this reason, a boarding accommodation and classroom were built. These were situated in the place where the security offices and UTH club are. (www.uth.gov.zm)

Over the years, the hospital has continued to grow. The government helped to build D block Neonatal wards in 1983, Virology lab in 1992 and A Block admission wards in 1997 that also houses offices for doctors and senior nurses. (www.uth.gov.zm)

UTH today is the largest single concentration of health specialists in Zambia with a whole range of state of art backup electrical and mechanical equipment for complicated diagnosis and treatment in the country. It has 56 wards with approximately 1800 beds. This means a lot of activity is taking place at the hospital in comparison with any other health institution in Zambia, making UTH one of the most hazardous and accident prone work places.

The University Teaching Hospital is situated four Kilometers from the town centre on Nationalist Road in Lusaka (www.uth.gov.zm/demographic). It is currently the only tertiary referral hospital. The UTH is the principal medical training institution in the country for Medical Students, Interns, and Postgraduate Doctors. It also provides the training of Nurses through the Nursing school located within the hospital grounds, as well as Clinical Officers through their college located at Chainama Hills College Hospital through its collaboration with the University.

It provides a full range of primary, secondary, and tertiary health and medical services on both inpatient and outpatient basis. This means that the UTH provides 1st 2nd and 3rd level health care services. In addition it serves as the country's specialist centre, receiving referrals from all over the country.

UTH's collection of two storey buildings is spread over 80 Hectares of land, approximately one and a half kilometers and supposedly manned by at least 3000 personnel. The hospital has a good road network including good communication systems such as internet, telephone, and fax equipment.

In order to facilitate safe and quick mobility of patients in and out of the hospital, the hospital has trolleys, mobile beds and elevators to move patients from one level, of the storied buildings to another.

“UTH is not only a national referral hospital but is also the district and provincial hospital servicing Kafue, Chongwe, Luangwa Mumbwa, Chibombo and Lusaka Districts in Lusaka province with an estimated population of over five (5) million people.” (www.uth.gov.zm/demographicprofile) Within its catchment area there are several other health care service providers. These include clinics under the Lusaka District Health Management Team (LDHMT), a specialized mental hospital (Chainama Hills Hospital) and the dental clinic in Thorn Park. These also provide training in their respective specialties. In addition, there are several privately owned clinics that have mushroomed in the city that have continued to compliment health care services.

“The hospital has 56 wards which have been arranged systematically from block A to G. The wards are distributed in the following categories; A-Block is a pediatrics wards with 357 beds, B-Block is the Obstetrics and Gynecology wards with 497 beds, D-Block is the Neonatal ward with 121 beds, E-Block is the Medicine Block with 345 beds and the surgical ward is in block G with 420 beds. In each of these wards there is a high cost ward.” (www.uth.gov.zm/history)

UTH is, by design and funding, a tertiary care providing institution. UTH is mainly funded by the Government of the Republic of Zambia even though in some cases the institution raises some of its income through the commercial charge in the high cost initiative. It also receives donations from well-wishing individuals and companies wishing to exercise their corporate responsibility. The institution offers training doctors, surgeons, pharmacists, nurses, clinical officers, radiography specialists, lab technologists, physiotherapists and other specialists in the medical field. Though UTH is supposedly mainly a tertiary provider it has ended up providing health services at all levels. This is because of the lack of adequate functional first level district/General hospital in Lusaka and surrounding areas.

The Vision of UTH is to be the Centre of Excellency for health care in the country and the region by providing innovations through ongoing research. Its mission statement is “to provide affordable quality health care; function as a referral centre; train health care providers; conduct research to find solutions to existing health problems and for the development of science”

The hospital has the following objectives;

- To provide general health care to the Zambia population.
- To conduct research and establish better management of commonly occurring diseases in Zambia and the southern region of Africa.
- To act as a referral centre for the whole country’s medical needs such as those that cannot be handled by peripheral institutions
- To provide training for medical, paramedical and nursing staff.

Table 2.1 Summary of the UTH departments and services offered.

Departments	Services offered	Times
Pediatrics	<ul style="list-style-type: none"> • Pediatric care (curative) • Child health promotion and disease prevention • Outpatient filter clinic 	24 hours
Obstetrics & Gyneacology	<ul style="list-style-type: none"> • Ante-natal care • Post-natal care • Gynea services for women • Family planning 	0730 - 16: 00 hours 13:00 – 16:00 hours
Internal Medicine and community medicine	<ul style="list-style-type: none"> • Adult Emergency Medical Unit • Adult Infectious Disease Centre (AIDC). • Renal • Cardiac, • Gastroenterological, Dermatology • Respiratory • Neurological diseases. • Outpatient 	24 hours
Physiotherapy	Exercises, Heat therapy, Weights, springs, pulleys, balls, walking forms, wheel chairs, Electrical short – wave Dia-therapy, Ultra sound stimulators and occupation therapy	
Pathology And Microbiology	Parasitology, Bacteriology, Molecular biology, Haematology, Histopathology, Virology and serology Mortuary	
Radiology (X-Ray)	<p>Chest X-rays and General X-rays such as Intra venous programs (IVP), Antigrade Pyrograms, Tubal Grams, Hystero Salpingogram (HSG) Carotid Engiograms, Pistulogram / Sinograms, Urethralgram /Cystograms, Barium studies, Barium meals, swallows, Enemas</p> <p>Ultra Sound which include; Cardiac (Heart) Scan (Echo cardiography) Abdominal scan (Obsterics and Gyneacology), Soft tissue Scan (Thyroid, prostate, Breasts, Testis, Tendons)and Brain scan in Neonates</p>	24 hours
Pharmacy	Dispensing of drugs, Consultation on drug useage. Counseling storage of drugs, Preparation of medicine such as ointments, creams, mixtures etc. Bio-medical Engineering	
Blood bank	Supplies blood to all departments	24hours

Source: www.uth.gov.zm

The hospital has many departments which include the following:

Department of Anesthesia, Department of Internal Medicine, Department of Obstetrics and Gynecology, Department of Pediatrics, Department of Surgery, Department of Community Medicine, Department of Pathology, Radiology Department, Physiotherapy Department, Pharmacy Department and the Blood Bank.

The following services are provided by the hospital:

1. An active 24 hrs out-patient service in these departments; pediatrics, obstetrics and gynecology, accidents and emergency (casualty).
2. Low cost (85%) and high cost/private practice (25%) facilities. The hospital retains only one third of the total revenue raised from the high cost and private practice venture
3. A radiological service that offers 24hour facility in X-ray department. In addition there are Ultra sound and nuclear medicine units. The department also offers CT-scans, Gamma camera and Doppler ultra sound scanning services.
4. A laboratory service, the hospital has a laboratory that is equipped with a lot of new machines including an electronic microscope. The hospital is able to conduct a range of DNA mapping and typing services.
5. Specialized support services such as Dental, Ear and Nose Treatment (ENT), Chest Clinic, Urology, Oncology, psychiatry clinics, physiotherapy and occupational therapy services.
6. A blood bank which operates 24hours.suppling blood to all departments.
7. Specialized clinics.

These are core activities of the hospital. But there are many other activities taking place to make the institution succeed. Some of these include the garage, mortuary and kitchen.

The effectiveness and success of all the above tasks depend on how UTH deals with the issues of health and safety. The University Teaching Hospital, as an organisation is considered to be an open system which interacts with its environment. It affects and is affected by its internal and external environment in which it operates. This relationship

between the organisation and its employees is of vital importance for the achievement of both the organisational and personal goals. The organisation needs a healthy workforce to accomplish its goals. Its success greatly depends on the well being of its workers while the workers' health depends on the occupational health and safety practices of the hospital. It is a cycle. If the workers at UTH are not taken care of, it is very unlikely that they will be motivated and fit to perform their duties.

CHAPTER THREE

OCCUPATIONAL HEALTH AT UTH

Introduction

This chapter presents findings on and discusses the occupational health risks faced by workers at UTH and the various measures (isolation of patients, ventilating wards, provision of protective clothing, radiation leave, use of antiseptic swabs and the use of soap) put in place to ensure that employees are, as much as possible free from or treated for work related illnesses (i.e. air or water borne and skin infections and other diseases). It also brings out factors that affect the success of these measures both in a positive and negative manner, how these measures are enforced and practiced at the institution and their effectiveness. The chapter analyses information obtained from all responses regarding health at UTH.

Respondents Profession/Category of Employment

Table 3.1: Distribution of Respondents by Profession/Category of Employment

Category	Frequency	Percent
Doctor/surgeon	22	17.2
Clinical Officer	18	14.1
Nurse	22	17.2
Physiotherapist	12	9.4
Lab Technician	2	1.6
Guard	6	4.7
Clerk	6	4.7
Mortuary Attendant	7	5.5
Cleaner/gardener	17	13.3
Environmental Health Technician	15	11.7
Social worker	1	0.8
Total	128	100.0

Source: Compiled from field survey data

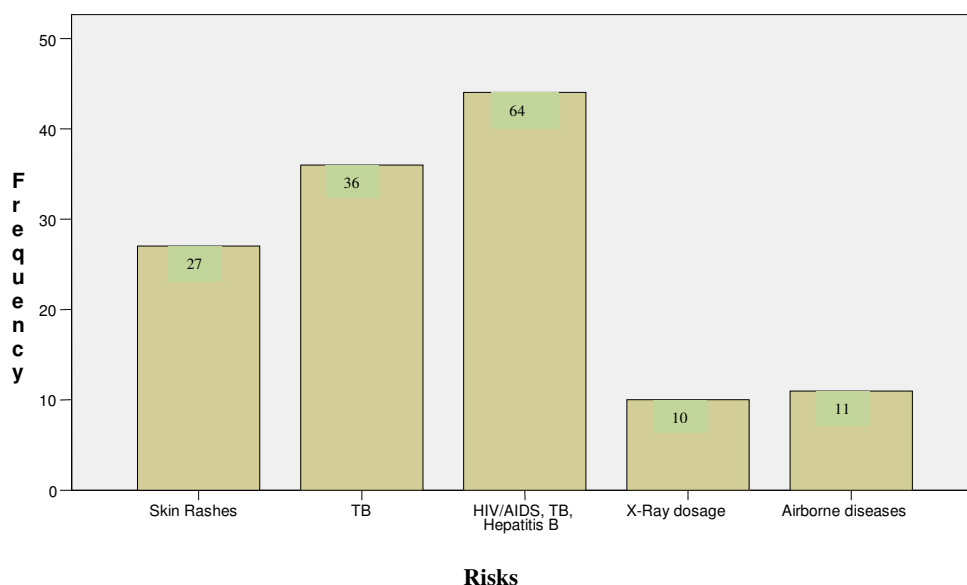
Respondents were asked what their professional qualifications were and the role or positions they held in the organisation. Of the one 128 respondents, 22 were medical doctors or surgeons, 22 nurses, 18 clinical officers, 17 cleaners/gardeners, 15

environmental health personnel, 12 physiotherapists, 7 mortuary attendant 6 guards, 6 clerks, 2 laboratory technicians and 1 social worker.

Risks Faced on Duty

At UTH or hospitals in general, employees are at risk of contracting air, water borne and skin disease due to the nature of their jobs. Respondents were asked what diseases they thought were risks to health in their work place. Some of the risks identified in this report are hepatitis B, Human Immune Virus (HIV) infection, Tuberculosis (TB) a pulmonary contagious bacterial infection that affects the lungs, but may spread to other organs caused by the bacteria mycobacterium tuberculosis., rashes, and exposure to radiation fumes and diseases from patients all over the institution

Figure 3.1: Distribution of respondents by the risk faced in their line of duty



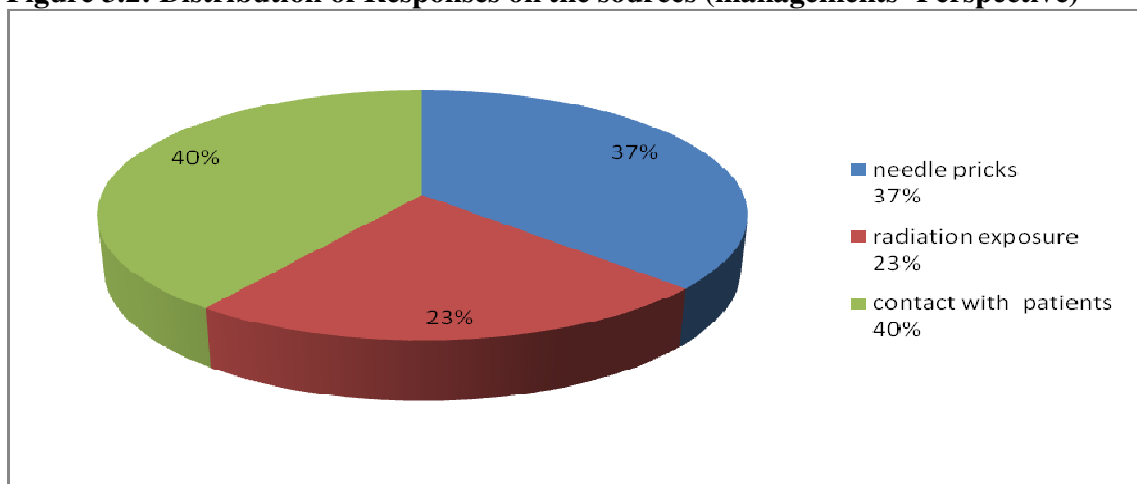
Source: Compiled from field survey data

When asked what risks they faced as a result of their work, the distribution of the responses was as follows: 28.1% said TB, 21.1% said Skin Rashes, 8.6% said airborne diseases and 7.8% said X-ray dosage (the exposure of one's skin to the dangers of x-rays which have an impact on the skin of the exposed). It is important to note the diseases that clients were suffering from are considered as risks. 34.4 % of the respondents claimed that Human immunodeficiency virus (HIV)/Acquired immune deficiency

syndrome or acquired immunodeficiency syndrome (AIDS) a disease of the human immune system caused by the HIV that interferes with the immune system, making people with AIDS much more likely to get infections, including opportunistic infections and tumors that do not affect people with working immune systems, TB, and Hepatitis B an infectious inflammatory illness of the liver caused by the hepatitis B virus transmitted through fluids such as semen, blood and saliva, were the major health risks faced at the institution.

Sources of risks

Figure 3.2: Distribution of Responses on the sources (managements' Perspective)



Source: Compiled from field survey data

Health workers risk getting infected from needle pricks, as they attended to their patients or through contact with infected clients. Some of the health workers are exposed to radioactive substances that can cause cancer or damage skin tissues. Supervisors were asked what the sources of risk to health were 40% said through contact with infected clients, 37% said via needle pricks, as they attended to their patients and 23% said health workers are exposed to radioactive substances that can cause cancer or damage skin tissues.

Disease Occurrence at UTH

Respondents were asked if they or any of their colleagues had suffered any illness as a result of working at the institution. Based on the information shown below, 55.4% of the employees agreed that they or their colleagues had suffered from an illness related to their work. 35.2% said they had never suffered from any disease, as a result of working at UTH

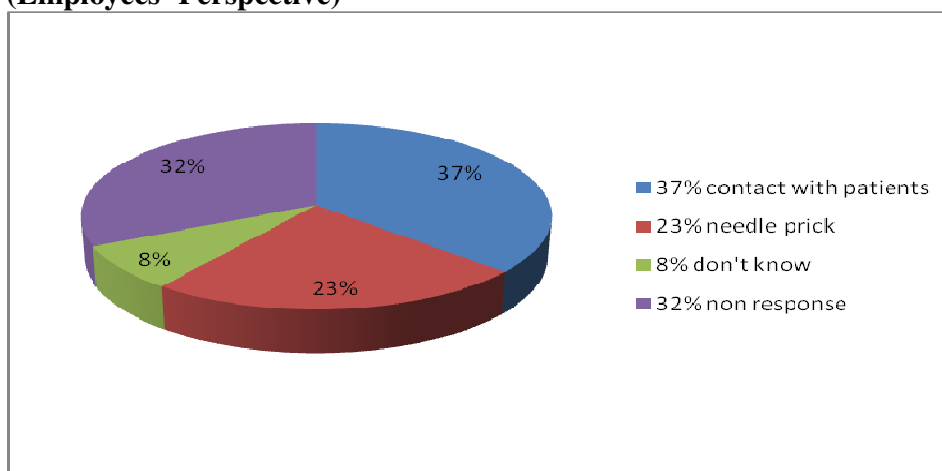
Table 3.2: Distribution of respondents by whether they had suffered from work related diseases at the institution (employee perspective)

Response	Frequency	Percent
Yes	68	55.4
No	45	35.2
Not sure	15	9.4
Total	128	100.0

Source: Compiled from field survey data

9.4% were not sure if they had suffered any occupational illnesses. The institution could not avail us with the actual statistics of occupational health illnesses that were reported to them, as no records were available in the departments; neither could those in the administration (Human Resource department). This led to a conclusion that the institution does not have a system for recording illnesses that could be attributed to the workplace. The practice may make it very difficult to take precautionary measures for the future.

Figure 3.3: Distribution of Responses on How Infections Were Contracted (Employees' Perspective)



Source: Compiled from field survey data

As a follow up question to the responses in table 3.5 respondents were asked how the illnesses were contracted. Of the 68 respondents that had contracted work related illnesses, 37% said they contracted the illness through direct contact with patients and 23% said after being pricked by a used needle, 8 % did not know how the disease was contracted 32% non response.

From the information, despite the existence of OH measures that management put in place at UTH, 54.4% of the respondents had suffered from illnesses related to the institution. These statistics show that the measures have not been very effective in preventing work related illness.

Awareness of Health Hazards

Knowledge on health hazards is cardinal because it is the starting point in dealing with OH. It enables those affected and those responsible to choose the right measures to put in place.

Table 3.3: Distribution of Respondents by awareness of health hazards

	Frequency	Percent
YES	123	96.1
NO	2	1.6
Non response	3	2.3
Total	128	100.0

Source: Compiled from field survey data

Respondents were asked if they were aware of the health hazards associated with their workplace. In response 96.1 % of the respondents said that they were aware of the health hazards that they risk contracting as a result of working at UTH. Despite the high levels of awareness, there are still OH illnesses occurring at the hospital (see Table 3.4). Of the 123 respondents that said

The chi-square value is 0.813 greater than 0.5 hence the conclusion that there is no relationship between awareness of the health risks and the probability of their occurrence.

Table 3.4: Cross tabulation of awareness against disease occurrence

Aware of any health hazards * have you or any of your colleagues suffered from an occupational illness contracted while working at the institution Cross tabulation

Count		Have you or any of your colleagues suffered from an occupational illness contracted while working at the institution			Total
		yes	No	not sure	
aware of any health hazards	YES	67	41	15	12
	NO	1	1	0	2
Total		68	42	15	125

Table 3.4.1

Chi-Square Tests

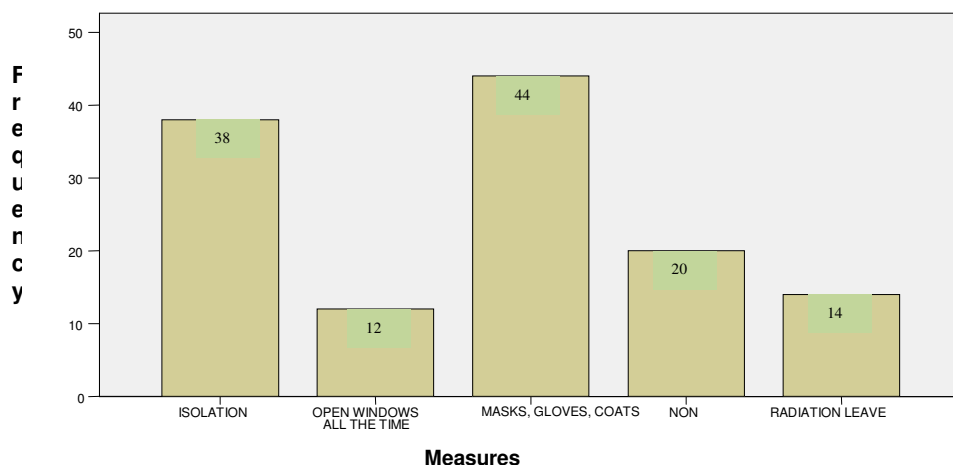
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.414 ^a	2	.813
N of Valid Cases	125		

Measures against air borne diseases

The respondents were asked what measures management had put in place to ensure the protection of workers' health against air borne diseases. 44 respondents indicated that

Figure 3.4

Measures taken against air borne disease



Source: Compiled from field survey data

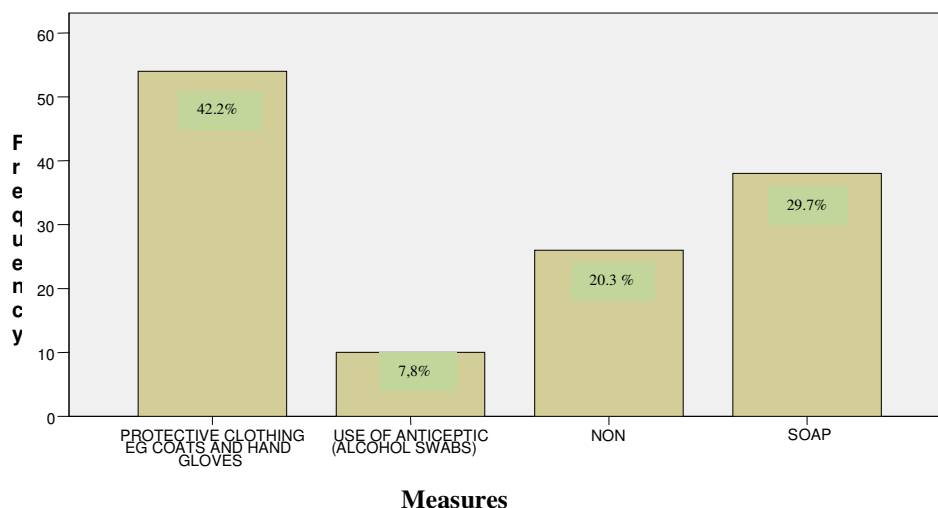
the management had put in place gloves, masks and coats to protect employees from airborne diseases, 38 respondents said that isolation of patients was one of the measures

put in place, 14 said radiation leave, while 20 claimed that management had not done anything to improve the health situation at the hospital. Other measures, according to 12 respondents, include keeping windows to the wards wide open most of the time to ensure free circulation of air in the room and improve the ventilation capacity of the ward or rooms.

Measures against skin diseases

When asked if management had put in place measures against skin diseases, 102 respondents acknowledged the hospital had put in place some measures to curb skin diseases that can be contracted as a result of working at the institution. Of these responses, the measures put in place included wearing of gloves, overalls or coats (42.2%), washing of hands with soap (29.7%) and antiseptic swabs (7.8%). Each ward in the hospital has a sink from which hands are to be washed always after contact with patients.

Figure 3.5: Measures taken against skin diseases



Source: Compiled from field survey data

Workers that are likely to be exposed to radioactive substances are given an opportunity to stay away for some time so that their bodies can repair or heal before going back to

the same routine. 20.3% of the workers feel that management has not done anything to protect them against skin diseases at their work places.

Health Waste Management

Health-care services inevitably create waste that may itself be hazardous to health or injurious to life. The waste produced in the course of health care activities carries a higher potential for infection and injury than any other type of waste (Duran, 1995) Workplace related infections or diseases may be as a result of air pollution or exposure to chemical or working with highly infectious air-borne diseases such as tuberculosis and swine flu. Pollution during waste disposal is very possible at the institution. Some of the employees that dispose of this waste are not professional or trained to carry out such a task. This put the worker at risk of contracting diseases.

Management of health-care waste (WHC) is a challenging task that has been identified as a high priority issue requiring urgent attention in Zambian health institutions. This is important in the achievement of a healthy and safe environment.

Table 3.5: Distribution of responses by the kind of waste generated at UTH

Kind of waste	Frequency	Percent
chemical pharmaceuticals	68	53.1
dust	26	20.3
human body parts	16	12.5
plastics	8	6.3
food leftovers	3	2.3
paper	7	5.5
Total	128	100.0

Source: Compiled from field survey data

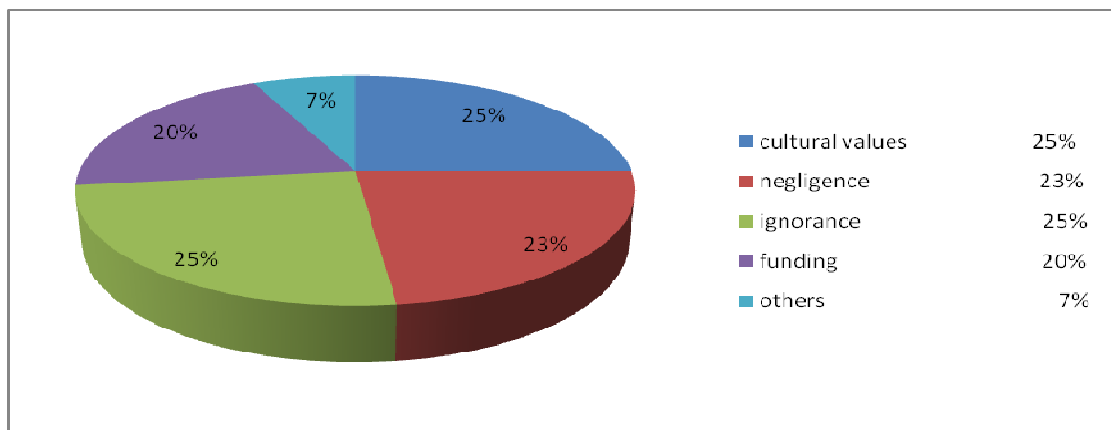
The respondents were asked what kind of waste they generated at their place of work. According to the responses, 53.1% of respondents said they generated comes from chemical pharmaceuticals, 20.3% said dust, 12.% human body parts, 6.3% paper, 5.5 plastic and 2.3% said food leftovers. 78.9 % of the respondents said that the waste

which is generated at UTH is incinerated, while 18% said it is dumped at the collection point for disposal in the rubbish pit (table 3.4).

Challenges of Healthcare Waste Management

Health-care waste management is strongly influenced by cultural, social, and economic circumstances. Some clients have the belief that their body parts of still-born babies should not be incinerated; hence management may face problems in getting rid of some waste in a professional way.

Figure 3.6: Distribution on the challenges of Health care waste management



Source: Compiled from field survey data

Respondents were asked what challenges are faced in the management of waste. From the responses 25% of the respondents said cultural values, another 25% said ignorance 23% said negligence and 20% said funding

Table 3.6: Distribution of responses by method of waste disposal of at UTH

Method of waste disposal	Frequency	Percent
Incinerated	101	78.9
Thrown in the pit	23	18.0
I don't know	4	3.1
Total	128	100.0

Source: Compiled from field survey data

The waste which is incinerated includes chemicals, pharmaceuticals, body parts and sharps. This kind of waste disposal is likely to produce gases that may be harmful to humans within the hospital grounds e.g. burning of waste within the hospital ground.

Training

Health issues have evolved or changed over time. Some of the causes of the changes are as a result of new diseases that are emerging or being discovered, as well as changes in technology. Knowledge about such changes is very important. Therefore, it is important that employees are educated on the health issues in the organisation. This knowledge can be attained through training the employees on how to protect themselves and others in the workplace or associated with the activities of the organisation.

Table 3.7: Distribution of Responses by Attendance of Training in Health and Safety According to Worker's Profession/Category of Employment

	Have you attended any training in Health and safety?		Total
PROFESSION	YES	NO	
Doctor	0	22	22
Clinical Officer	6	12	18
Nurse	1	21	22
Physiotherapist	0	12	12
Lab Technician	2	0	2
Guard	0	6	6
Clerk	1	5	6
Mortuary Attendant	0	7	7
Cleaner	4	13	17
Environmental Health Technician	7	8	15
Support staff	0	1	1
Total	21	107	128

Source: Compiled from field survey data

Respondents were asked if they had received any training on health issues at the institution. Although 96.1% (see Table 3.4) of employees are aware of the various risks against health in the institution, very few have been trained on OHS issue at UTH.

Only 21 (16.4%) out of 128 respondents attested that they had undergone training and out of these only 5 of those trained are support staff. Three quarters of those who claimed to have had been trained are health professionals

Respondents were asked if they had received any training on health issues at the institution (see table 3.6). Although 100% of employees are aware of the various risks against health in the institution, very few have been trained on OHS issue at UTH. Only 21 (16.4%) out of 128 respondents attested that they had under gone training and out of these only 5 of those trained are support staff. Three quarters of those who claimed to have had been trained are health professionals.

The research shows that the institution has not made it a deliberate priority to educate the employees on issues of health and safety. Most of the employees rely on the past knowledge and experiences. There also seems to be no link existing between awareness and training.

Table 3.8: Distribution of Responses on the Existence of Refresher Courses on OHS Provided by the Institution?

Response	Frequency	Percent
Yes	19	14.8
No	54	42.2
I don't Know	51	39.8
Non Response	4	3.1
Total	128	100.0

Source: Compiled from field survey data

The hospital has not done much in educating its members on health and safety in their operations at the institution. When asked if they were aware of any refresher courses at the institution, 42.2% of the respondents said no there was none, 39.9% said they had no idea, while 14.8% said yes.

The statistics above show that there are very few employees (14.8%) that can attest to the availability of refresher courses on OHS at the institution. Members rely so much on their tertiary education and experience as there are very few opportunities for training at the hospital. This can lead to employees improvising and using un-conventional methods due to lack of knowledge. The lack of training could have a huge impact on the effectiveness of the measures put in place. It is expected that knowledge of OHS should increase with time as OHS issues keep evolving.

Compliance

Table 3.9: Distribution of Respondents by Compliance to Health and Safety Measures

Response	Frequency	Percent
Yes	25	19.5
No	25	19.5
Sometimes	15	11.7
Depending on the situation	16	12.5
If the requirements are provided	47	36.7
Total	128	100.0

Source: Compiled from field survey data

Respondents were asked if they complied with health measures put in place at the institution. From the results shown in Table 3.8, it is apparent that compliance depended on the situation prevailing at that particular time and not a must. 19.5% of the respondents stated that they did not comply with OHS measures, while another 19.5% confirmed their compliance with the measures. 36.7% said that they only comply if provided with the requirements such as protective equipment, otherwise they did not comply while 12.5% said depending on the situation and 11.7% said sometimes they complied. We, therefore, concluded that in the absence of Occupational Health and Safety requirements, a large number of employees do not comply with the measures that management has put in place at the institution and that there is no proper supervision of OHS measures.

Table 3.10: Distribution of Responses by Whether there is Punishment for Non-Compliance

	Frequency	Percentage
Yes	32	25.0
No	37	28.9
sometimes	15	11.7
no one takes note	44	34.4
Total	128	100.0

Source: Compiled from field survey data

Respondent were asked if they are punished for non compliance with health and safety rules. It is important for the employees to have faith in the efforts of both the

management and its policies in order to solicit compliance from the employees. The findings of this research show that only 25% of employees that had not complied with measure put in place by management had been punished. Very few (25%) employees thought that the measures that have been put in place are effective as a result it may also be difficult to earn the commitment of such employees to complying with the rules.

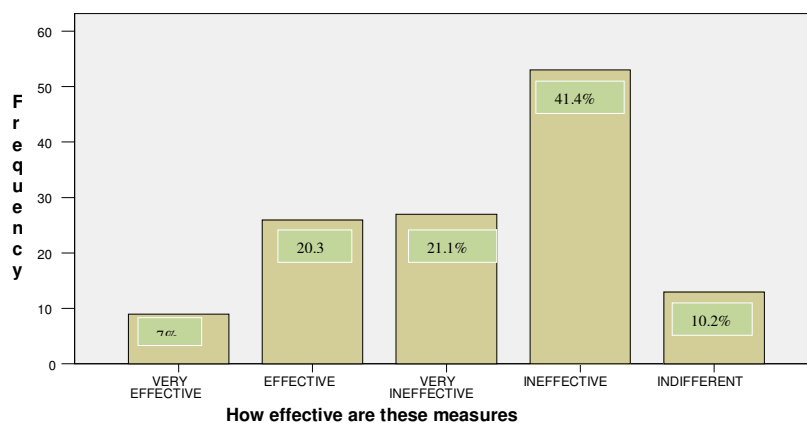
According to the researcher's evidence as reflected in table 3.9, 28.9% of the respondents said that workers were not punished for not complying with OHS regulations. 34.4% of the respondents said that no one monitored the implementation of OHS measures. This may also be a reason for not complying on the part of employees as some needed to be coerced or supervised in order to comply with measures.

We therefore concluded that management or implementation of OHS measures is not properly done, as employees are left to follow the health and safety rules without any supervision. Lack of supervision is likely to affect monitoring and tracking of incidents and even evaluating of OHS measures.

Effectiveness of these Measures

When respondents were asked if they thought the measures put in place were effective,

Figure 3.7: Distribution on the Responses on the Effectiveness of Measures put in Place



Source: Compiled from field survey data

41.4% of the respondents felt that the measures were ineffective, 21.1% felt that they are very ineffective, 20.3% felt that the measures were effective, 7% said the measures were very effective, while only 10.2% were indifferent. To evaluate the effectiveness of the measures it is vital to also compare the expected results to the actual results.

Conclusion

For proper management of health and safety to exist record keeping is paramount (Michael Armstrong: 1990). UTH lacks a good Occupational Health and Safety administration system. The researcher was not availed with any written records of occupational accident or illnesses. At UTH, employees are at risk of contracting air, water borne and skin disease due to the nature of their jobs. Some of the risks identified in this report are hepatitis B, Human Immune Virus (HIV) infection, Tuberculosis (TB), rashes, and exposure to radiation fumes and diseases from patients all over the institution. These diseases are contracted via needle pricks, contact with patients or through radiation exposure. Management has put in place measures (provision of protective clothing, isolation of patients ventilation of rooms and radiation leave) to reduce risks. Despite these measures we found out that worker at the institution still suffer from occupational diseases hence the conclusion that the measures are not effective.

Nevertheless, despite the absence of training in occupational health and safety at the hospital, 96.9% employees are aware of the risks (see Table 3.2) that are associated with their work and the measures put in place. However, only the trained health professionals have the knowledge on how they can deal with the cases of infection. The hospital has selected cases in which remedies are provided. For example, in situations where an employee is feared to have contracted HIV/AIDS as a result of a prick or puncture from a used utensil, he/she is put on treatment to reduce the likelihood of that employee contracting HIV/AIDS but this does not prevent the contraction of other diseases that can be contracted via the same way.

CHAPTER FOUR

OCCUPATIONAL SAFETY AT UTH

Introduction

This chapter is a discussion of occupational safety at the University Teaching Hospital. It covers issues on measures that the institution's management has put in place to ensure that the workplace is safe and almost free from hazards that can lead to accidents and bodily injury to the worker. The chapter also discusses the management as well as effectiveness of these measures in ensuring the safety of all interested parties at the institution.

Safety Hazards

Safety is a full time occupation at work, at home or wherever we may be. UTH has several hazards that could lead to accidents. Most of these include, poor lighting in some rooms, stress, slippery floors, trips, malfunction of machines, violence at work, exposure to chemicals in the laboratories store rooms, x-rays, as well as gases from the furnace where healthcare waste is burnt.

Cause of accidents

Table 4.1: Distribution of Responses on the Causes of Accidents at UTH

Cause	Frequency	Percent
slippery floor	13	10.2
malfunction of equipment	19	14.8
lack of training	14	10.9
insufficient lighting	2	1.6
stress	40	49.1
Carelessness/drug abuse	18	14.0
Violence	19	14.8
Total	128	100

Source: Compiled from field survey data

Respondent were asked what were the common causes of accidents at UTH. 49% of the respondents attributed the accidents to stress, 14.8% to malfunctioning machines and

violence, 14% carelessness/drug abuse, 10.9% lack of training, 10.2% slippery floors and 1.6% said lack of sufficient lighting.

Stress

Job stress can lead to poor health and even injury. The concept of job stress is often confused with challenge, but these concepts are not the same. Job stress has negative effects on the employee and production at the institution, while challenges energize employees psychologically and physically and motivates them to learn new skills and master the jobs. When a challenge is met, workers feel relaxed and satisfied. Thus, challenge is an important ingredient for healthy and productive work. However, when these challenges are unrealized, they can lead to stress and also affect the quality of service delivered to the client.

Job stress results when the requirements of the job do not match the capabilities, resources, or needs of the worker. Job stress poses a threat to the health of workers and, in turn, to the health of the organizations. According to the statistics obtained from the research, stress was the major cause of accidents in the hospital. From the responses obtained, stress accounts for 49.1% of the causes of accidents in the institution (see Table 4.1).

Table 4.2: Distribution of Responses on Whether Respondents Were Comfortable With Their Workload

	Frequency	Percent
yes	33	25.8
no	86	67.2
Non response	9	7.0
Total	128	100.0

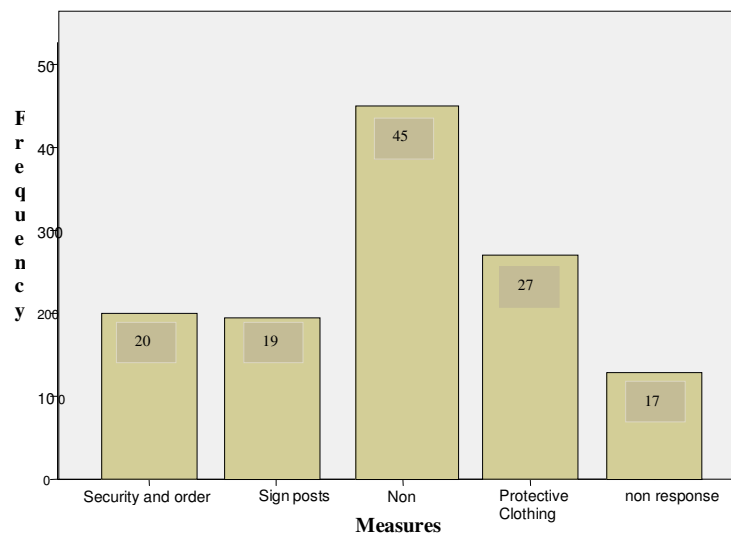
Source: Compiled from field survey data

The term work load refers to the number of patients/ an employee attends to in a shift (6hours) to remain effective. The recommended workload according to WHO is 15 patients per shift. When we asked the respondent if they were comfortable with their workloads, 67% of the respondents said that their workload was hectic and stressful. 25.8% said they were comfortable while 7% of the respondent did not respond

Measures against accidents

The management at the institution has put measures to protect employees against violence of all sorts at the institution. It has a security wing that is responsible for the security issues. It has also outsourced a cleaning agent to ensure good housekeeping at the institution. For safety of equipment, there is a maintenance office that is responsible for maintenance of all equipment. As for awareness, there are some posters that have been put in some places.

Figure 4.1: What Measures if any have been put in place to prevent accidents



Source: Compiled from field survey data

According to the responses on whether management had put in place any measures to prevent accidents, 45 respondents felt that nothing has been done to prevent accidents 27 said protective clothing (overall, boots and gloves), 20 respondents said security and order and 19 said signs posts. 17 were non response cases

In view of the above it was expected that the measures put in place would reduce the occurrences of accidents at the institution. However, when we asked the respondents if they had experienced accidents at work some said yes.

Incident Rates

Respondents were asked if they had experienced an accident at the place of work. 90.6 % said yes and only 9.4 percent had not experienced any form of accident relating to the workplace.

Table 4.3: Distributions of Responses by whether employees/ their colleague had Experienced any Accident at the Workplace

Response	Frequency	Percent
Yes	116	90.6
No	12	9.4
Total	128	100.0

Source: Compiled from field survey data

We were not availed with the statistics on the number of accidents that occurred in the last one year at the institution. However, 90.6% of the respondents acknowledged that either their colleagues or themselves had experienced an accident at the workplace. These accidents have occurred despite the existence of measures put in place by management.

According to data collected by the researcher, an overwhelming number (90.6%) of responses showed that most of the employees had experienced an accident minor or major. This was not enough to determine the rate at which accidents had occurred, as many of the respondents could have been referring to the same incident. There were no records from the institution on the number of accidents that occurred at the institution.

The researcher was availed with statistics of accidents that members of staff had, regardless of where the accident took place (in the workplace or outside the organisation). This rendered such records useless for the purpose of this research but led to the conclusion that one of the factors affecting OHS management at the institution is poor OHS records keeping. Due to the absence of proper records the researcher conclude that there was poor OHS records management at the hospital.

Nature of accidents at UTH

Table 4.4: Distribution on the nature of accidents

Nature of accidents	Frequency	Percent
falls	13	10.2
Slips/trips	22	17.1
burns	16	12.5
cuts	21	16.4
needle prick	38	29.7
Non response	18	14.1
Total	128	100

Source: Compiled from field survey data

Respondents were asked what accidents they experienced in their line of duty. 29.7% said needle pricks, 17.1% said slips, and 16.4% attributed their accident to cuts from sharps, and 16% said burns and 10.2% claimed falls from heights. 14.1% did not respond.

From the statistics in tables 4.1, 4.2 and 4.3 we conclude that despite the measures put in place to prevent accidents, accidents are still taking place confirming the assertion that these measures have not been effective.

Pricks and cuts

Among the type of accidents at the institution are needle pricks and cuts. According to 29.7% (Table 4.4) of the respondents needle pricks caused most accidents they experienced at the institution. While 16.4% said they had cut themselves on duty. Prick and cuts were as result of sharps used in the hospital as instrument for the treatment of patient. Sharps are items that could cause cuts or puncture wounds, including needles, hypodermic needles, scalpel and other blades, knives, infusion sets, saws, broken glass and nails. Whether or not they are infected, such items are usually considered hazardous health-care waste. Pricks are the most common type of accidents that occur at the institution. Most of these pricks have been as a result of stress, alcohol abuse, and

violence from the clients, carelessness on the part of the practitioners, poor lighting and malfunctioning of the equipment.

The hospital has put in place measures such as wearing of gloves and proper waste management in order to reduce the occurrence of pricks among its employees. For instance all sharps should be disposed in a different (separate) labeled bucket from any other waste generated. It is a requirement that if, for any reason, the waste is accidentally mixed with other waste, all waste should be condemned and considered hazardous. No sorting of waste should be done after waste is mixed. However, most of these pricks occur at the time when the sharps are in use. The synthetic gloves that are worn do not stop the sharps from causing harm to the user.

Slips or trips

Slips or trips account for 17.1% of the nature of accidents that occurred at the institution. Walking and working surfaces, such as floors, stairs and ladders, are associated with slip, trip and fall accidents.

Consequences of Accidents

Table 4.5: Distribution of Respondents by the Consequences of the Accident

Consequences of accidents	Frequency	Percent
death	1	0.8
wound/injury	57	44.5
infected with disease	39	30.5
Stressed/depressed	10	7.8
loss interest in work	21	16.4
Total	128	100.0

Source: Compiled from field survey data

When asked what the end result of the accidents were, 45% of the respondents said they had wounds, 30.5% were infected from needle pricks, 16% lost interest in the work, 7.8% of the respondents were either stressed or suffered from depression and 0.8% said

it led to the death of an employee. Such results are the reason why OHS was instituted in first place. The OHS programme has not been effective enough to avoid them

Training on Safety

Table 4.6: Cross tabulation of Responses on Whether Respondent had Attended any Training in Safety at the Institution*accident experience at UTH

			Have you or any of your colleagues experience an accident at work		Total
			yes	no	
Have you attended any training in H&S	YES	Count	20	1	21
		% of Total	15.6%	.8%	16.4%
	NO	Count	96	11	107
		% of Total	75.0%	8.6%	83.6%
Total		Count	116	12	128
		% of Total	90.6%	9.4%	100.0%

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.629 ^a	1	.428

It is important to train employees on how they can evade accidents and on first aid activities in case of accidents. Respondents were asked if they had received any training on safety at the institution. Only 16% of the respondents attested that they had undergone training and out of these only 13% of those trained are support staff. Three quarters of those who claimed to have been trained are health professionals. (See table 3.6).

According to the chi test of 0.428 (greater than 0.5) shown above, there is a close relationship between the continuous occurrence of accidents and the lack of education on health and safety. We can therefore, conclude that lack of training at the institution is one of the factors affecting the effectiveness of OS measures at the hospital.

House keeping

Good housekeeping and safety are inseparable. It is the responsibility of every worker to keep his/her working area and the equipment he/she uses in a clean, neat and orderly condition at all times. Every organisation must provide a healthy working environment in the context of having good, well -ventilated work areas. In addition, offices, laboratories and other rooms should be provided with good air conditioning facilities set at the proper temperature.

The purpose of Good House Keeping in safety is to reduce the number of hazards therefore reducing the number of unsafe conditions and accidents. There's a proper place for everything, everything should be in their proper place.

Table 4.7: Distribution of Respondents on the Frequency of Cleaning of their Work Stations

No. of times the work place is cleaned	Frequency	Percent
twice a day	66	51.6
Once a day	27	21.1
Rarely	26	20.3
Total	119	93.0
Not applicable	9	7.0
Total	128	100.0

Source: Compiled from field survey data

Respondents were asked how often the offices were cleaned. 51.6 % said that the work stations were cleaned, at least twice per day, while 21.1% said once a day and 20.8 said rarely. The management at the institution has made a tremendous improvement in trying to issue that the environment is clean. It has sub-contracted cleaning agent to clean the hospital wards and office rooms. This has helped to reduce the workload of the few cleaners at the institution.

From the information obtained from the survey it can be seen that housekeeping is not a big problem at the institution. Based on the focus group discussions with patients/clients at the institution, most respondents indicated that the hospital had improved its

housekeeping except in areas like the mortuary, where they said more work needs to be done. The measure taken by management to engage a cleaning agent was effective because the mortuary is one of the places where the hospital has not deployed cleaners from the agent.

According to responses from these discussions, the institution's cleanliness maybe considered to be far much better than other district hospitals in the country. UTH has managed to reduce the odor or stench associated with many hospitals. The researcher also observed that the high cost area of the institution was cleaner than the low cost. This can be attributed to two factors. It is either because of the number of people flocking to the low cost sections or it is because priority is given to clients paying more for the services provided. Nevertheless, management should try to maintain both areas and the difference should only be seen in the quality/standards of healthcare services provided. It can therefore be concluded that there is no link between house-keeping at the hospital and the continuous occurrence of accidents at the hospital.

Table 4.8: Distribution on Responses on how frequent the Workplace is Painted.

Frequency of painting	Frequency	Percent
Once Every 4 Months	8	6.3
Once A Year	8	6.3
I Don't Know	31	24.2
Never Since Employed	62	48.4
12 Years Ago	8	6.3
Not applicable	11	8.5
Total	128	100

Source: Compiled from field survey data

Respondents were asked how often their workplace or station was painted, 48% of the employees that were interviewed could not recall having seen the walls being painted 24.2% didn't know how often the walls were painted at the institution. 6.3% said 4months ago, another 6.3% said a year ago, while 8.5% were out door workers, as a result the question was not applicable.

Table 4.9: Distribution of Responses on When the Walls Were Last Painted

Response	Frequency	Percent
Last Month	9	7.0
Last Year	8	6.3
Don't Remember	43	42.2
Don't Know	38	32
Other	16	12.5
Total	128	100.0

Source: *Compiled from field survey data*

Many organisations view the issue of housekeeping as an expense they would rather avoid to incur. However, as the saying goes, “prevention is better than cure.” Painting of the walls is one of the things that have been neglected at the institution. According to the statistics in the table, 42.2% of the respondents could not recall the last time the walls were painted, 32% did not know the last time the walls were painted. 7% said last month, 6.3% said last year, while 12.5% did not respond to the question. Based on this information it can be conclude that most parts of the institution have not been painted for a long time.

Violence at the Workplace

Workplace violence ranges from offensive or threatening language to homicide. NIOSH defines “workplace violence as violent acts (including physical assaults and threats of assaults) directed toward persons at work or on duty. Examples of violence include the following: Threats: expressions of intent to cause harm, including verbal threats, threatening body language, and written threats. Physical assaults: attacks ranging from slapping and beating to rape, homicide, and the use of weapons such as firearms, bombs, or knives. Muggings: Aggravated assaults, usually conducted by surprise and with intent to rob.” UTH has not been spare from violence against its employees either from with or external from the public. The forms of violence range from verbal to physical violence.

Table 4.10: Distribution of Respondents on Whether They Had Suffered Verbal Violence from Your Clients or the Public

Response	Frequency	Percent
Yes	90	70
No	38	30
Total	128	100.0

Source: Compiled from field survey data

Respondents were asked if they had been verbally abused by their clients/ public. Most (70%) respondent agreed that they had been insulted by disgruntled clients of psychiatric patients. From the statistics it can be concluded that the violence from the public is currently an apparent hazard at UTH which needs attention. Employees were insulted and this may have major effects on their performance or levels of coping under pressure (leading to stress). On the other hand clients also claimed that health workers had also verbally abused them.

Table 4.11: Distribution of Respondents on Whether They Had Suffered Physical Violence from Your Superiors

Response	Frequency	Percent
Yes	57	44.5
No	71	55.5
Total	128	100.0

Source: Compiled from field survey data

Respondents were asked if they had been physically attacked by their superiors. 55.5% of the respondents said no, while 44.5% attested that they had experienced some form of physical violence from their superior. Some employees said that they had been violated by their superiors occasionally whenever there was a difference in opinion.

Respondents were also asked if they had suffered any form of physical violence from their colleague. 44.5% said yes and 55.5% said no. this violence was attributed to stress or conflict that might have arisen as a result of differences in opinion.

Table 4.12: Distribution of Respondents on Whether they had Suffered Physical Violence from Your Colleagues

Responses	Frequency	Percent
Yes	57	44.5
No	71	55.5
Total	128	100.0

Source: Compiled from field survey data

Table 4.13: Distribution of Respondents on Whether they had Suffered Physical Violence from the Public

Responses	Frequency	Percent
Yes	81	63.3
No	47	36.7
Total	128	100

Source: Compiled from field survey data

Respondents were asked if they had experienced any form of verbal violence from the public. An overwhelming response of 63.3% said yes, and 36% said no.

Causes of violence at the institution

The causes of violence differ from one organisation to the other and from one hospital to the other. “These circumstances of hospital violence differ from the circumstances of workplace violence in general. In other workplaces such as convenience stores and taxicabs, violence most often relates to robbery”. (NIOSH: 2002)

Respondents were asked what the likely causes of violence at the hospital were. Stress/work overload (11.7%), disgruntled clients due to the loss of a loved one or long waits in queues (30.4%), psychotic patients (25%), people under the influence of illicit drugs and alcohol (10.9%) and inadequate security systems. 5.3% did not know, while 4.2% were the non-response case.

Table 4.14: Distribution of Responses on the Causes Of Violence At The Institution

Cause of violence	Frequency	Percent
Stress /work overload	15	11.7
Disgruntle clients	39	30.4
Psychotic patients	32	25
Drug /alcohol abuse	16	12.4
Poor security system	14	10.9
I don't know	7	5.3
Other	5	4.2
Total	128	100.0

Source: Compiled from field survey data

Management has put in measures such as sedation of patients and security has been employed to help health workers deal with violent clients. However, these guards are not placed close to the places of action where there are no emergency modes of communication e.g. sirens or panic buttons that can be pressed to call for help when need arises. Reporting of such incidents is done physically, in person, by using land lines or personal cell phones. This can be time consuming and not efficient.

Safe Access and Exit

UTH is a three-storey building and at times some workers have to use stairs and or lifts to get to their work stations. Respondents were asked whether their work stations were easy and safe to access or exit. According to their responses, most areas in hospital are easy to access and exit. Most of the employees on the ground floor and those using stairs only expressed happiness with the safety of the access to the workplace.

Table 4.15: Distribution on Responses about the Safety of the Worker's Access To or Exit from Their Work Stations. (Cross tabulation)

	How do you get to your work station				Total
How safe is it to get to your work station	Stairs	Lifts	Walk	Lifts and Stairs	
safe	36	9	25	0	70
not safe	3	16	16	16	51
very safe	4	0	0	3	7
Total	43	25	41	19	128

Source: Compiled from field survey data

When asked if their access to the work stations was safe 70 said yes it was safe , 51 said it was not safe while 7 said it was very safe. Of the 51 respondents who ad it is not safe 16 use lifts, 16 use lifts and stairs , 3 just use stairs and another 16 respondents don't use stairs or lift. Those that have to use stairs and lifts (16 respondents) or just lifts (also 16 respondents) said that the access to their workstation was not safe. They complained that sometimes the lifts were not working and have to carry heavy load up to their work stations. This has been very strenuous on the workers, backs.

We observed that emergency doors had been chained with big locks. Management should ensure that these doors are open to ensure that in case of emergencies people in the institution have a quick exit from the institution.

Compliance to safety measures

When respondents were asked if they complied with safety measures 40.6% said yes, 32% said that their compliance depended on the situation and 11.7 said sometimes.

Table 4.16: Distribution of respondents by Compliance to safety measures

Response	Frequency	Percent
Yes	52	40.6
No	35	32
Sometimes	15	11.7
Depending on the situation	16	12.5
Non Response	10	0.8
Total	128	100.0

Source: Compiled from field survey data

Even though the percentage of compliance is narrowly higher than that of noncompliance to health measures (also see Table 3.12), the percentage of those that did not comply with measures cannot be ignored. Accidents are still occurring at the institution hence the conclusion that non-compliance is one of the factors affecting the effectiveness of safety measures.

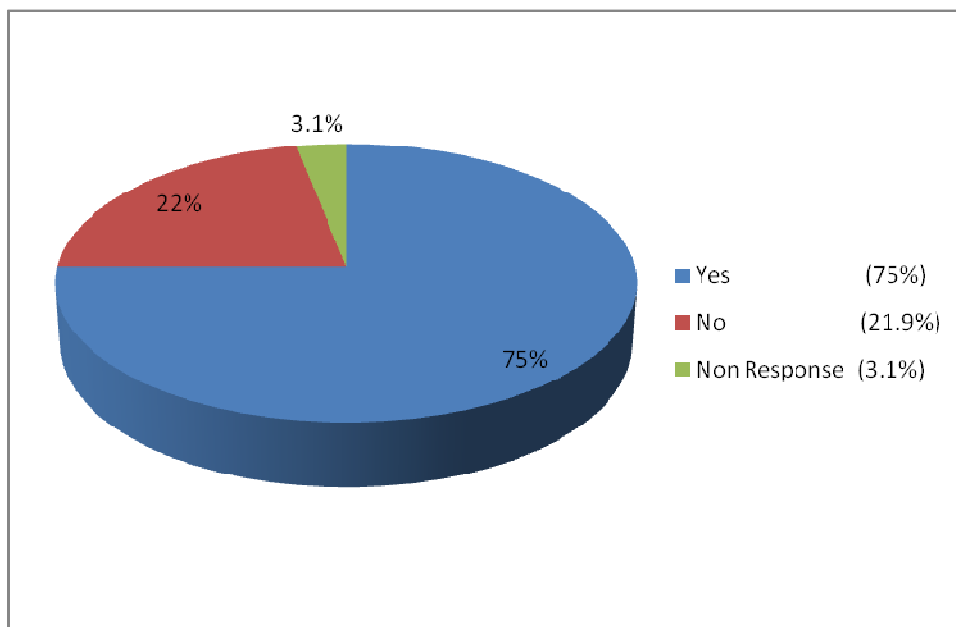
Participation in OHS

Participation and involvement is one other way of soliciting commitment from members of the organisation, as it brings about a sense of ownership in decisions arrived at in a discussion. When asked whether respondents participated in OHS reviews at the hospital 75% of the respondents said no, while 21.9 % said yes and 3.1% did not respond.

There is a relationship between noncompliance and involvement of workers in decisions pertaining to the health and safety. Many employees do not have the opportunity to participate and a good number does not comply with the health and safety measures put in place.

According to Dessler (2008), accident prevention boils down to two things reducing unsafe conditions and reducing unsafe acts. These are responsibilities of the employer and the employee respectively. All injuries and occupational illnesses can be prevented, as well as unsafe acts and conditions eliminated. To accomplish this, the full cooperation, support and involvement of all workers is needed.

Figure 4.2: Distribution of Responses on Worker Participation in OHS Reviews?



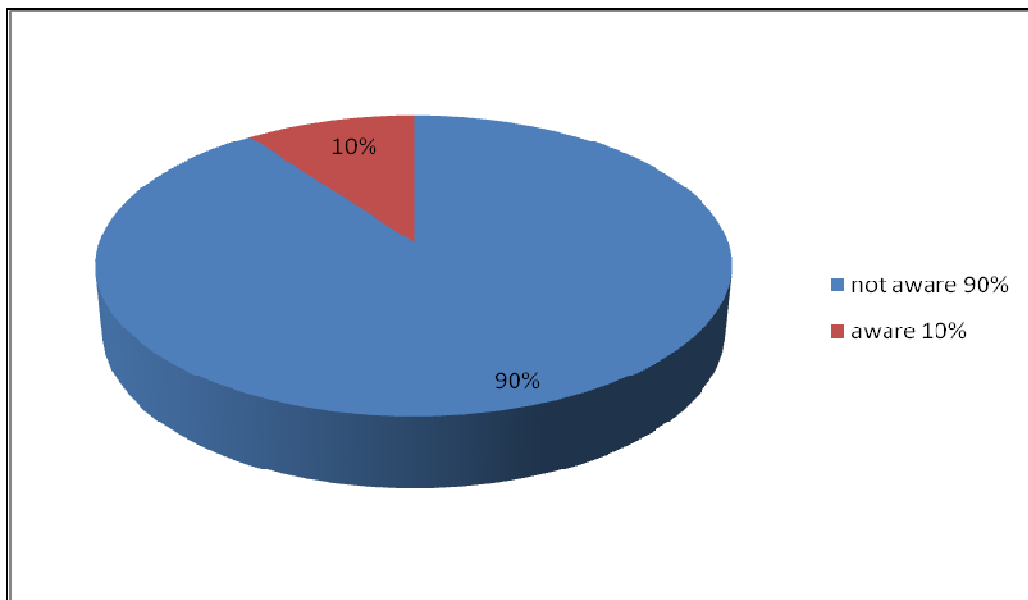
Source: Compiled from field survey data

75% of the participants expressed ignorance on performance reviews, while only 21.9 % of the respondent said the participated in OHS performance reviews and 3.1 were non-response.

Client sensitization

In terms of client sensitization on OHS measures, 90% of the respondents from the FGDs said there was no sensitization on OHS to patients at the institution while 10% they were aware of some measure put in place. The statistics in figures 4.2 and 4.3 indicate that there is little effort to sensitize the worker about their health and safety related to their being associated with the hospital.

Figure 4.3: Distribution of responses on client sensitization of OHS at UTH



Source: Compiled from field survey data

This is confirmed by the fact that even the signs at the hospital have lost colour or faded, hence making it difficult for client to see warning signs. This condition can be attributed to management failure to repaint the signs over time. This has also contributed to lack of awareness.

Conclusion

Safety is cardinal at the University Teaching hospital. There have been a number of measures that management has put in place to insure that employees, as well as those associated with the institution are safe from hazards related to the institutions environment (things that could cause accidents). Despite the existence of these measures accidents still occur at institution. The researcher concluded that lack of participation, lack of training, poor sensitization, poor records management and non compliance to health and safety measure are some of the reasons for poor OHS performance at UTH. These measures should not be a one off activity but should be part of the organization's culture. Clearly one is able to see that there is need for continuous improvement in the area of safety at the institution. A lot still needs to be done for the institution to have a good occupational health and safety programme.

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter concludes the entire report of this research. It suggests what can be done to maintain or reinforce the measures to improve the performance of occupational health and safety measures at the hospital. The main objective of this research was to assess the effectiveness of the Health and Safety measures at the University Teaching Hospital (UTH).

Summary of Conclusions

One the objective of the research was to identify the measures put in place at the institution. The researcher identified the following as measure put in place to prevent work related illnesses and accidents; training, provision of protective clothing(boots masks, coats, glove etc.), radiation leave, the safe access and exit to the workplace, housekeeping and ventilation.

The second objective was to examine the implementation of OHS measures. From the information obtained in this research, it is apparent that the OHS programme put in place at the institution has not been effectively implemented hence their ineffectiveness in reducing OHS illnesses and accidents. The research identified the reasons for continued Health and Safety problems at the institution. These included work overload, poor security responsiveness, lack of adherence to OHS measures, lack of training in OHS issues, poor supervision, lack of sensitization and lack of confidence in the measures put in place, hence the noncompliance by respondents.

To improve implementation, administration of OHS programmes should be improved. To achieve this, a good record and reporting system should be developed. The institution does not have any record keeping that is meant just for the programme's efficiency. No audits are conducted to check or evaluate the programme and all accidents and illnesses are recorded together including those that are not occupational. Implementers should

consider evaluating the effectiveness of the OHS measures to check for any deviations from expected standards and if there is need for corrective action.

The report also emphasizes the need to sensitize patient and others that are not employees at UTH on their health and safety in the institution. This measure will help make clients aware of the hazards and risks

Finally, the hospital management has put in place workable measures to ensure a health and safe UTH which, if administered properly, can help in managing Occupational Health and Safety at the institution

Recommendations

In order to ensure successful delivery of services at the hospital, UTH management should work on the health and safety of employees, as well as customers and all affected by its operations. The researcher concluded that OHS problems at the hospital can be reduced if implementation was done properly. Hospitals are part of a high demand, high expectation service industry and are heavily reliant on staff for the friendly, safe, effective and efficient delivery of services. To optimize productivity and the attitude of staff, all levels of management must be committed to ensuring conducive organizational climate with high staff morale. Clear priorities and direction, realistic performance goals and workloads, commitment to continuing education and quality assurance, reception to staff feedback and support, with counseling services for stressed staff are all important components in ensuring a healthy and safe work place.

Management is responsible for the safety and health programmes' upkeep, but implementing the safety programme is everyone's business. Both the employer and employee should work together for OHS administration to be a success. The following paragraphs present the recommendations made by the researcher on the basis of observation and research findings at the institution;

Training

Management at UTH should consider accident prevention, as its first line of defense to ensure that OHS compliance is at its peak. Forcing the employees to comply may not be the best option. “Getting the employees to wear personal protective equipment can be a famously difficult chore” (Dessler: 2008). It would be better if the workers were trained and educated on OHS issues so that compliance is solicited in that manner, rather than by force. It is a well known fact that acquisition of knowledge produces change of attitude and practice.

The waste handler should be kept informed on the serious effect that this kind of waste poses on their health and that of the people and environment as a whole. “Like it or not, organisations have a duty to provide health and safety training. But it could involve much more than you think” (Damon, Nadia. 2008). There is need for management to plan for this training to ensure proper accountability so that all can benefit from such training. This training should be on a continuous basis.

Record keeping

To improve management and decision making on OHS issues the researcher recommends that the management should develop an effective record keeping system that is simple and easy to understand, one which can help to analyze the reoccurrences in diseases and accidents. One of the most important aspects of Occupational Health & Safety management is to have records to provide evidence on what you do or have done to ensure a safe and healthy working environment. Having a log of all training provided to staff, no matter how small, can be invaluable if you need proof that your staff has been trained. Record keeping systems about interventions do not have to be complicated; it can just be a notebook with the heading of the training, brief explanation of the contents, where it was held, when was it held and who attended. Even better if you can get a signature from those attending to prove they attended.

Records should be kept on accidents and infections that occur in the Hospital and of the identification of causes of accidents to help future decision making. The lack of

evidence about intervention delays the introduction of new programs and threatens the continuation of ongoing programs.

Another area where documentation would be invaluable is risk assessment. Maintaining good records and statistics will help managers to identify problem areas and unsatisfactory trends. Having a systematic approach will assist in determining the risk levels and also in putting into place measures to reduce or manage the risk. Record keeping should be done constantly.

Risk and hazard assessment

Risk and hazard assessment is a process in which individual hazards and risks are identified, assessed and controlled or eliminated as close to the source as reasonably possible. The institution should do an assessment of the premises to determine what risks exist and devise ways on how they are being managed. It is important to do a brief assessment of the severity of the risk and the likelihood that it would happen. Assess the probability that this would happen at all levels. And the situations in which they are likely to happen and prevent them from happening. First aid required may be likely and often, whereas fatal death may be extremely rare and not likely to happen. A risk assessment should be carried out prior to making an intervention. It should be kept in mind that risk management requires risk to be managed to a level which is as low as is reasonably practical.

Monitoring and Evaluation

For the purpose of making we informed decisions management should conduct periodical evaluation of the programme. This can be done during the audit and inspection process. Monitoring and evaluation will also enhance improvement and performance of the OHS programme

Signs

Management should consider putting up signs that can be understood by any person. This measure will help in educating or enlightening the clients who may not have

received any education concerning their health and safety at the institution. Safety signs are used to: draw attention to health and safety hazards, point out hazards that may not be obvious, provide general information and directions, remind employees where personal protective equipment must be worn, show where emergency equipment is located and indicate where certain actions are prohibited e.g. use of cell phones or smoking cigarettes.

Safety signs and colours are useful tools to help protect the health and safety of employees and workplace visitors. Bright colours attract attention and can be used extensively for safety purposes. For example, colour can be used as an additional safety measure to identify the contents of pipes and the nature of the hazard.

Generally the institution is clean but management should consider extending the services of the cleaning agents to other parts of the hospital like the mortuary.

Recruitment of OHS officers

From the researcher's analysis among the things the institution should consider putting in place are occupational health and safety officers. Their prime responsibility should be to ensure adherence to OHS regulations in the hospital, advise the management about what needs to be done to ensure the health and safety of work place and conduct workplace Health and Safety training. These Health and Safety officers should help develop and manage an effective occupational health and safety programme at the institution that will include evaluation and tracking of the safety and health of workers at the institution. Occupational health and safety officers should promote health and safety procedures in an organisation. They should identify hazards and health and safety risks, put suitable safety controls in place, and give recommendations on how to avoid accidents to management and employees in an organisation.

Recruitment of more staff at the institution

One of the problems identified is the shortage of staff in most parts of the hospital. Most of the health and safety problems at the hospital result from work overload and stress. This may also cause a number of accidents at the institution. It is important for UTH

management to consider matching the size of the workforce with the demand for labour at the institution. This will help in keeping a fit workforce in the organisation and also help the organisation to make the best use of its human resource. Management should recruit more health workers to deal with the problem of worker shortages at the hospital.

Consultation

Participation of employees in decision making is vital for the success of any programme in an organisation. Consultation can be used in the prevention and management of occupational violence. Consultation is both a legal requirement and a valuable means of improving the employer's decision making about health and safety. Good consultation:

- recognizes the contribution that can be made by employees, drawing on their direct knowledge and experience of the work and their ideas.
- is proactive, effective and meaningful, and
- encourages employees to ask questions, raise safety concerns, make safety recommendations and be part of the problem-solving process.

Top Management Involvement

The health and safety of workers and others at the institution should be considered as a top priority by management at the hospital. They should demonstrate that they are committed to the cause to ensure that compliance and commitment are part of the organizational culture, rather than forcing it on people to comply. The health and safety policies of the organisation should be determined by top management, who must be continuously involved in monitoring health and safety performance and in ensuring that corrective action is taken when necessary. The involvement of top managers in the issue will show others in the organisation, just how much management prioritizes the employee's health and safety and will increase morale and compliance at lower levels in the hierarchy.

Punishment for Non-compliance

Punishment may not always be the best, but from a psychological point of view, laws that don't threaten punishment are rarely followed. "Spare the rod and spoil the child" (The Holy Bible, Proverbs13:24). To ensure that Occupational Health and Safety measures are obeyed by everyone concerned those responsible for noncompliance should be punished. Such an experience should not be meant to instill fear in the workers but show them how serious management is about their Health and Safety. Line managers and supervisors should be held accountable for the health and safety of their subordinates to ensure proper supervision in the Occupational Health and Safety administration at the institution.

Workplace Counseling

Counseling is very important for stress management in any organisation, including hospitals like UTH. The purpose of counseling should be; (1) to help the individual worker identify the problems that he or she has been facing (2) to help the individual find the desired conditions (how they want things to be) and (3) find ways of achieving these desires.

Counseling is one approach in which managers can help employees deal with some of the problems and manage their stress levels. Despite this, managers should be careful not to indulge themselves so much into the personal lives of their subordinates. Counseling on personal issues should only be offered when solicited. Counseling should give individuals the opportunity to talk about their problems with members of the personnel or HR department through the employee welfare assistance programme

Other ways in which stress can be reduced include redesigning jobs and through performance management. Job design should be done in such a way that roles are clearly clarified, reduce role ambiguity and conflict and also ensure that the workload is reasonably manageable. Performance management on the other hand should allow dialogue so that employees have an opportunity to talk about the performance.

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APPENDICES

Appendix 1: Questionnaire 1

THE UNIVERSITY OF ZAMBIA

Department of political and administrative Studies

Master of Public Administration

Assessment of the Occupational health and safety Measures at the University Teaching Hospital

Dear respondent,

You have been randomly selected to answer a questionnaire for the assessment of the effectiveness of occupational health and safety measures at the University Teaching Hospital. The research is being conducted as partial fulfillment for a Masters Degree in Public Administration. The information obtained using this questionnaire will be used for academic purposes only and all information given will be treated as confidential

Section One: Personal Data (Tick the appropriate answer)

Question 1

Sex

1. Female
2. Male

☐

Question 2

In which department or section do you operate?

1. Pediatrics
2. Medicine
3. Gynecology
4. Administration
5. Human Resource Department
6. Security
7. Laboratory

☐

Question 3

What is your professional capacity at the institution?

1. Doctor
2. Clinical officer
3. Nurse
4. Physiotherapist

5. Lab technician
6. Cleaner/maid
7. Security Guard
8. Mortuary attendant
9. clerk
10. Others (specify)

Question 4

How long have you served at UTH?

1. Less than a year
2. Two to but less ten years
3. Above ten but less than twenty years
4. Above twenty but less than thirty
5. For thirty or more

Question 5

Before you started working here did you go for a fitness test?

1. Yes
2. No

Question 5

Are there any refresher courses on health and safety being conducted at the institution?

1. Yes
2. No
3. Don't know

Question 6

Have you ever been trained in health and safety issues since you joined the institution?

1. Yes
2. No

Question 7

If yes when did you last attend one?

Question 8

How often does your employee or the institution conduct medical test for all staff?

1. One a month
2. Once a year
3. Just when you are recruited
4. Not at all
5. Other specify

Section two: Measures to minimize Occupational Illnesses

Question 9

Are you aware of any health hazards that you are exposed to in your line of duty?

Yes

No (skip to question 11)

Question 10

If answer to question 9 is yes specify

Question 11

What measures have been put in place to avoid contracting air borne diseases?

.....

Question 12

What measures have been put in place to protect you from skin diseases?

.....

.....

.....

Question 14

How effective are the measures mentioned above?

1. Very effective
2. Effective
3. Very ineffective
4. Ineffective

Question 15

How many windows are in the room where you are currently operating from?

1. 1
2. 2
3. 3
4. 4
5. Other specify

Question 16

Do they provide you with enough ventilation?

1. Yes
2. No

Question 17

How do you get to your work station?

1. Using stairs
2. Using a lift
3. None of the above
4. Other Specify

Question 18

How safe is it to get to your workstation?

1. Safe
2. Not safe
3. Very safe
4. Others specify.....

Question 19

How big is the ward/room you work from? m²

Question 20

What protective gear do you need to perform your duties (tick any that apply)

1. gloves
2. masks
3. overall
4. safety shoes
5. Others (specify).....

Question 21

How often is your work place painted?

1. Once a month
2. Once every four months
3. Once a year
4. Once every six
5. Other Specify.....

Question 22

When where the walls last painted?

1. A month ago
2. Last year
3. Don't know
4. Other Specify.....

Question 23

Have you or any of your colleagues suffered from an occupational illness contracted while working at the institution?

1. Yes
2. No
3. Not sure

Question 24

How was it contracted?

Explain

.....

Question 25

What treatment was given to the victim?

Specify

.....

Question 26

Was it paid for by the institution?

1. Yes
2. No
3. I don't know
4. Other (specify)

Section Three: Measures to minimize work related accidents

Question 27

Do you need any protective gear in order for you do your job?

1. Yes
2. No

Question 28

If yes what protective gear do you need? (Tick any that apply)

1. gloves
2. masks
3. overall
4. safety shoes
5. Others (specify).....

Question 29

Does your employer provide you with the protective gear identified above?

1. Yes
2. No

Question 30

If your answer to Q25 is yes, how often does it happen?

1. Every two years
2. Every year
3. Twice a year
4. Other Specify.....

Question31

Have you or any of your colleagues experience an accident at work?

1. Yes
2. No

Question 32

What was the cause of the accident?

1. Slippery floor
2. Malfunction of equipment
3. Lack of user training
4. Insufficient lighting
5. Stress
6. Other specify

Question 33

What were the consequences of the accident?

1. Death
2. Wound
3. Handicapped
4. Infected with disease
5. Other (specify)

Question 340

What remedy was given to the victim?

1. Compensation
2. Treatment
3. Other (specify)

Question 35

what measures if any have been put in place to ensure that the accident does not occur again?.....

.....

Section Four: Measures to minimize work related stress

Question 36

How many clients are you supposed to attend to in a day/shift?

1. 10
2. 20
3. 30
4. Other Specify.....

Question 37

How many clients do you see per day/shift?

Question 38

Are you comfortable with you workload?

1. Yes
2. No
3. Doesn't matter

Question 39

How often is your work place cleaned?

1. Twice per day
2. Once per day
3. Rarely
4. I don't know
5. Other Specify.....

Question 40

In your line of duty, have you or any of your colleagues suffered physical/verbal violence from your employers?

1. Yes
2. No

Question 41

In your line of duty, have you or any of your colleagues suffered physical/verbal violence from your clients or the public?

1. Yes
2. No

Question 42

What are the causes of violence at the institution?

1. Stress
2. Difference of opinion
3. Disgruntled clients
4. Psychotic patients
5. Others specify

Are there any recreation facilities put in place to minimize stress?

1. Yes
2. No
3. I don't know

Question 43

What recreation facilities exist?

1. Sports
2. social club
3. holiday resorts
4. pubs
5. gym
6. Other specify.....

Question 44

Does the organization offer counseling for the stressed?

1. Yes
2. No
3. Don't know

WASTE MANAGEMENT

Question 45

What kind of what do you generate?

1. Chemical pharmaceuticals
2. Sharps
3. Human body parts
4. Dust
5. Food staff
6. Other (specify).....

Question 46

How do you dispose it?

1. Incinerate it
2. Bury
3. Throw in the pit
4. I don't know

Question 47

Do you participate in health and safety reviews?

1. Yes
2. No

Question 48

In your opinion what should be done to make the occupational health and safety programme at the institution more effective?

.....

.....

.....

.....

Thank you

Appendix: 2

THE UNIVERSITY OF ZAMBIA

Department of political and administrative Studies

Master of Public Administration

Assessment of the Occupational health and safety Measures at the University Teaching Hospital

Dear respondent,

You have been purposively selected to answer a questionnaire for the assessment of the effectiveness of occupational health and safety measures at the University Teaching Hospital. The research is being conducted as partial fulfillment for a Masters Degree in Public Administration. The information obtained using this questionnaire will be used for academic purposes only and all information given will be treated as confidential.

Your favorable cooperation will be greatly appreciated

TO BE ANSWERED BY MANAGEMENT/ADMINISTRATION

Question 1

What measures have you put in place to ensure the safety of workers and clients in the institutional premises?

.....
.....

Question 2

Do your workers go home in there working attires e.g. uniforms, overalls, gowns etc

1. Yes
2. No

Question 3

Is there a laundry where the employees can leave their working attire for disinfecting?

1. Yes
2. No
3. Don't know

Question 4

Do you conduct health and safety in-service training?

1. Yes
2. No
3. Don't know

Question 5

If yes, how often is the training conducted?

1. Daily
2. Weekly
3. Monthly
4. Yearly
5. Other specify.....

Question 6

If your answer to Q5 is No explain why

.....
.....
.....

Question 7

Do you conduct medical tests on your staff to ensure that they are fit for work?

1. Yes
2. No
3. Don't know

Question 8

If yes, how often

1. Daily
2. Weekly
3. Monthly

Question 9

Do you conduct a health and safety programme evaluations?

1. Yes
2. No
3. Don't know

Question 10

If yes, how often

4. Daily
1. Weekly
2. Monthly
3. Yearly
4. Other specify

Question 11

What have done to ensure that employees follow health and safety rules?

.....
.....
.....

Question 12

What measures do you take against those who do not follow health and safety rules?

.....
.....
.....

Question 13

Do you provide your employees with protective gear?

1. Yes
2. No

Question 14

Do you conduct health and safety audits?

1. Yes
2. No

Question 15

How often do you conduct health and safety audits?

1. Daily
2. Weekly
3. Monthly
4. Yearly
5. Other (specify).....

Question 16

What are the health and safety ratings at the institution?

.....

Question 17

What recreation facilities exist?

1. Sports
2. social club
3. holiday resorts
4. pubs
5. gym
6. Other specify.....

Question 18

What are the challenge to healthcare waste management?

.....
.....
.....

Question 19

What has been the cost of occupational illnesses to the institution?

.....
.....
.....

Question 20

What has been the cost of occupational accidents to the institution?

.....
.....
.....

Thank You

Appendix 3: Interview guide

1. Sex
2. Age group
3. What is your educational background/occupation?
4. Where do you come from?
5. Are you here as a patient or by the bed side or as a business associate?
6. Are you an out or in patient?
7. How long have you been here?
8. In your opinion is the hospital clean?
9. Do you get the services required on time?
10. Have you ever contracted any illness as a result of being here at the institution?
11. Have you ever had an accident at the institution
12. Are you at a great risk of contracting other diseases here at this institution?
13. Are you aware of the measures put in at the Hospital?
14. Have you ever been violently or verbally attacked by any of the health personnel here at the institution
15. What was your reaction?
16. Have you ever verbally or physically attacked a worker here at the institution
17. What were the reasons for your actions?
18. In terms of health and safety which health institution would you prefer and why?
19. How do you rate the health and safety of clients at this institution?
20. What do you think the hospital should do and is not doing to ensure that client and their friend or relatives are healthy and safe at the institution.

I would like to thank you all for your participation