OCCUPATIONAL HEALTH AND SAFETY FOR WORKERS WHO ARE DISABLED IN AFRICA

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Abstract  A good working environment or work is very important for global, national and local economic and social development. Legislation and inspection of workplaces is done to help monitor compliance with health and safety agencies and also insure health and safety in workplaces. Occupational health is a multi-disciplinary action that concentrates on protecting and promoting the health of workers by preventing and controlling occupational diseases and accidents. In Africa occupational health also looks at the factors and conditions that are hazardous to the health and safety of workers. Occupational health focuses on enabling workers to conduct socially and economically productive lives and contribute to sustainable development. According to the UN statistics about 300 million people are disabled in Africa. With the increasing number of people living with disability a number of countries have developed laws and regulations that allow disabled people to work. This paper aims at addressing different occupational and health issues which will help understand occupational health, the problems that come it and how to address those problems. This article will also review the challenges of people living with disability face in employment and how they are treated at their workplaces. This review will be based on other articles downloaded from google scholar and Pubmed. 14 articles where downloaded but only 11 where used as they met the criteria.

Keywords: Occupation; Safety, Health and safety; Disability; Occupational health

1. Research Background

Managers and representatives of team members need to be educated on the development of occupational health and safety management systems in outbreaks and emergencies (WHO, 2013; Geneva, 2018). The workers need to be taught on things like workplace occupational safety and health policy that will stipulate what an organization or institute will do in case of any accident or if any of the workers contracts a disease as a result of exposure to chemicals or disease causing agents at the workplace.

The organization will also look at on what grounds will it consider certain events as occupational health concerns. Occupational safety and health also looks at planning for worker’s safety which includes resource mobilization (Geneva, 2018). Resources mobilized will include; human resource which will focus on protecting the health and safety of workers regardless of how small or big the workplace is. Mostly disabled people are not treated as disabled in their work environment where they do the same work they work from, hence they are exposed to the same occupational diseases or injuries as the other workers. Most African companies do not try to come up with a work environment that will allow disabled workers work better. For example, most organizations in Zambia don’t have elevators to aid the of people living with disability, hence they use the stairs like the rest of the workers hence making their work life difficult.
1.1 **Occupational hazards for workers who are disabled**

Hazards are physical situations or conditions that have the potential to cause human injury, damage to property and environment or combinations of them. Therefore, occupational hazards can be said to be hazards that are associated with one’s nature of their job and their environment. Hazards include physical, chemical, biological ergonomic and psychological factors that may have adverse effects on the health of the well-being of workers. When workers are exposed to such at their workplace, it becomes unsafe and may have adverse effects on the workers (Richard, 2016).

Occupational health Act 2017 aims at securing the safety, health and welfare of workers against the risk to safety and health arising out of activities of persons at work. Exposure to hazards at work mostly causes injury, illness or other adverse health effects in the workplace, and this may be as a result of unsafe machines and exposure to hazardous chemicals and inadequate or poor lighting (Ibrahim et al, 2008).

Some of the injuries that may occur at a workplace include: loss of hearing, eye sight loss, burns, broken bones or electric shock. Preventive measures should be put in place to help protect the health of the workers and the environment they work from. Occupational diseases and impairments occur frequently in the work environment due to lack of proper measures to prevent. To prevent hazards from occurring at workplaces, employers should be able to carry out workplace risk assessment so that they can be able to identify the hazards that disabled employees at the workplace. They also need to identify how employees will be at risk of the identified hazards and measures put in place to help reduce the effects of the hazards on the employees (Ibrahim et al, 2008).

These measures can include; provision of personal protective equipment such as safety boots, gloves, face masks, that will help reduce or hinder exposure to chemicals or hazardous substances that may be at their workplace.

1.2 **Occupational diseases among workers who are disabled**

Occupational diseases include any disease that is contracted as a result of exposure to risk factors present at one’s workplace. Occupational disease can be identified as disease arising from exposure to substances and dangerous conditions in the process of work (ILO, 2010).

1.3 **Identification of occupational diseases among workers who are disabled**

To find a causal link between one’s occupation and a disease they have. You look at clinical and pathological data, you look at the occupational background and analyze it. This will identify and analyze the risk factors or chemicals that one has been exposed to at their work place (ILO, 2010). From there you will link the risk factors to the diagnosed diseases.

Generally, symptoms are not enough to diagnose an occupational disease without the knowledge of the pathological engendered by physical, chemical, biological or other factors encountered during occupations or other work-related activities.

For one to identify work related diseases there is need to consider one of the following:

- **Strength of Association:** if the hazardous substance a worker is been exposed to has a great impact on the development of disease then there will be a strong likelihood that it is the cause.
- **Specificity:** certain diseases occur if you are exposed to a specific factor. For example, you can get pneumoconiosis or any respiratory related diseases if you are exposed to dust particles continuously. Therefore, if the disease you are diagnosed with is related to a specific factor you are exposed to then most likely it is the cause of the disease.
- **Temporality or time sequence:** the exposure of interest preceded the disease by a period of time consistent with any proposed biological mechanism.
- **Coherence:** a general synthesis of all the evidence (e.g. human epidemiology and animal studies lead to conclusion that there is cause-effect relationship in broad sense and in terms of general common sense (ILO, 2010)

In Africa disabled workers face a lot of challenges which include; lack of access to proper education, social life and lack of autonomy. Because people with disabilities lack a voice to speak up about the challenges they face at work because of the fear of losing their jobs. They get to be exposed to more
occupational health injuries and diseases, for example a person with back pains if given a chair which is not ergonomically built, they may worsen their situation and eventually stop work. Physically challenged workers may not be able to run in cases of fire hence they are at increased chances of injuries that may come as a result of the fire (Mariene J., 2014).

2. Research Methodology

A systematic review was conducted using the recommendations published by the National Health Service (NHS, 2010) Centre for Review and Dissemination. Computerized literature searches were performed using the most popular scientific literature databases: PubMed, Embase, Wiley Interscience, and Science Direct.

2.1. Search strategy and procedures

The search terms included “occupational health”, “disability”, “workers” and “Africa”. In order to capture a number of articles, the search terms were evaluated both as medical subject heading (MeSH) and in text words. For the MeSH search in the National Library of Medicine (PubMed), the strategy used was: “review articles” [Publication Type] “occupational” [MeSH] AND “health” [MeSH]. The raw results were primarily filtered according to duplicate references in the different databases, relevance, and language. Results were then re-filtered in order to verify if all the inclusion criteria were met. Once obtained, the final selected papers references were checked in order to identify further relevant papers. The relevant papers were therefore all identified and used for obtaining necessary data.

2.2. Study selection criteria

The papers that were chosen and used had inclusion criteria of: papers that were categorized in the scientific database as “original papers”, “case study”, “case report” “subject design”, and “N of 1 trial”. Papers written in the English language Papers published from January 2007 onwards (time frame selected to capture at least a few years backwards and the most recent findings).

2.3. Data extraction and synthesis strategy

Each paper was screened and the identified papers included an introduction, methods, results, and discussion models.

3. Results and Discussion

3.1 Prevention of occupational diseases among workers who are disabled

Most African countries have put great emphasis on prevention of occupational diseases. But even with this in place, there is still not much priority given to the severity of occupational diseases. Therefore, there is still need to put more effort in fighting occupational disease and correct the decent work deficit (ILO, 2010).

It is very critical to have an effective Occupational Safety and Health System that will help effectively implement national policies and programs that help to strengthen the prevention of occupational diseases.

Some of the laws in Zimbabwe, Namibia and South Africa that can help prevent occupational diseases include; the laws and regulations that will incorporate how occupational diseases will be prevented. How managers and workers will work together to implement Occupational and Safety measures. This will mean that management should have clear and specific work duties given to its workers so that everyone is aware of what their duties are and who they should report to (ILO, 2013).

3.2 Occupational ergonomics

Ergonomics is simply designing or arranging workplaces and its products and systems in a way that fits the person working with them. In other words, ergonomics is fitting the work to the worker. Ergonomics aims at promoting the health and well-being of workers by designing safe and satisfying work.

Ergonomics plays a role in occupational health and safety as its primary role is to improve the quality of working life by reducing the risks of injury and disease. A workplace with good ergonomics is advantaged in such a way that it will have increased productivity (Pat S. et al, 2009) the morale of workers will also be enhanced because they will be working in an environment with decreased chances of injuries.

3.3 Concentrating areas in ergonomics

There are three main areas of concentration when it comes to ergonomic;
• Physical ergonomics: physical ergonomics concentrates on human anatomy, anthropometric, physiological and biomedical characteristics as they are related to physical activity. This comes as a result of working posture, handling of materials, repeated movements heavy work, noise in the workplace, thermal conditions and vibrations, safety and health as these relate to work.
• Cognitive ergonomics; this is concerned with the workers’ mental states. These include things such as perception, how workers view thing and the people they work with. Memory, the ability of workers to recall what they did last or what their day to day duties involve without them being reminded by their supervisors. These aspects may affect how people make decisions, human interact, human error, work stress and training as they may have related to the way humans work.
• Organizational ergonomics; this is concerned with the organizational structures, policies and processes. It is concerned with how workers communicate among themselves and with management. Workers should know who to communicate to at what particular time. Work should be designed in such a way that people are aware of their duties, the procedures involved and precautionary measures to take in order to avoid injuries [8].

3.4 Micro and macro ergonomics
Micro-ergonomics; this focuses on people working with tools, machines and other equipment’s. In capabilities between the requirements of the job and worker’s capability can lead to serious injuries.

Employees need to work with ergonomics so that the ergonomists can help them identify and prioritize problem areas; not all identified or noticed problems should be worked on with immediate effect. Therefore, it is important for the ergonomists to identify problems that can be prioritized and help improve the productivity of an organization and health of its workers (Pat S. et al, 2009).

Macro-ergonomics: this is beyond what micro-ergonomics looks at, it goes as far as looking at the overall environment. Macro-ergonomics is therefore concerned with how organizational work system is designed and how it can be affected by technological and environment variables (Pat S. et al, 2009).

3.5 Ergonomics principles
These ergonomic principles should be applied in all workplaces be it in an industry or office work environment.

These principles include; Dynamic work; it is important to avoid working in a static position, work that does not require you to make movements frequently. When you expose your muscles or same posture for a long period of time you increase the chances of you having body fatigue. For example, in Tanzania, the people who do a job that requires the workers to be standing all have been proved to be more prone to developing back pains.

Adjust work surface heights; these principles look at adjusting heights to ensure that the person working with that particular equipment or table does not have to stress their bodies to get their work done. This can be achieved by having adjustable office chairs, round tables that will require people working in the office to only be rotating around whenever they need something and for industries you can ladders that will be used to reach things on top.

Avoid overloading of work on individuals in order to have workers who are healthy. It is important to ensure that workers are not overloaded with work and that they work within 30% of one’s maximum strength (Pat S. et al, 2009).

Train individuals to use workplace facility and equipment properly, when individuals are trained most likely accidents will reduce and will have people working effectively hence increasing productivity.

3.6 Stress and adverse psychological factors
Stress is used in a number of ways to describe things like feeling ill, anxiety or depression. Stress is not a health impairment but rather sign of a harmful physical and emotional response. ILO defines stress as harmful physical and emotional response that comes as a result of imbalance between the perceived demands and the perceived resources and abilities of individuals to cope with these demands. Work related stress is determined by work organization work design and labor relations (ILO, 2016).

Cite this as:
3.7 Causes of work related stress

The psychological hazards in a workplace include; interactions between and among work environment job content (what a job will require you to do, how long you will be expected to work). Heavy workloads lead to stress in such a way that the workers will have too much to do living with little or no time to rest.

Job insecurity; workers who are not sure if they will still be working the next day will always have insecurities about their job. They will not perform to their full capacity hence they will be stressed (ILO, 2016).

For disabled workers most work stress comes from their co-workers and the employees. According to (Mariene et al., 2014; Chiluba & Muke, 2019; Chiluba et al. 2019), disabled individuals face a lot of discrimination and stigmatization from their co-workers because of how they look and when they have challenges to carry out certain tasks. This is one of the reasons why even after having policies that allow people to work there are still a number of qualified disabled individuals who do not work because of the fear of discrimination.

It has been observed that over the past decade, diseases arising from occupations have increased. This is as a result of having more industries with less policies to regulate their operations or availability of personal protective equipment at workplaces. According to the European Lung white book, in 1970 500,000, in 1990 10,000 and 2007 2,500,000 people were exposed to cancer-causing agents at work. This shows that exposure to chemicals or agents that can cause occupational diseases is increasing by the years.

4. Conclusions

Occupational health and safety is very wide and it is involving. A number of workers worldwide mostly work in places where their health and safety is not prioritized. Outstandingly most companies especially the mining companies have little or no personal protective wear. The workers are given protective wear when there are individuals from higher authorities coming in to inspect.

In MOST African countries, management does not pay attention to occupational hazards as they believe if workers are qualified then they should be able to work without making mistakes. To avoid this type of work culture by management, there is need to educate managers that accidents do occur and that everyone is prone to make mistakes, managers should also understand that the worker deal with machines which may breakdown at any point and they do not guarantee 100% efficiency.

Occupational risks differ from one workplace to the other. Mostly occupational accidents or diseases are not reported because people underestimate the impacts that comes it, and for occupational disease, they occur long after one has retired or stopped work hence they fail to make flow ups or connect thins. Some people just don’t know who to report to or how to report. Lack or reports is also what makes people in higher authorities fail to come with policies concerning occupational health and safety as they will assume everything is okay. It is therefore important that worker is sensitized on the importance of reporting occupational accidents and diseases so that higher authorities can come up with policies.

It is clear that most African countries do the least to ensure safety and well-being of disabled workers. There is need to not only come up with policies that protect disabled workers but there should be a strong implementation of those policies.

References


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