

Musculoskeletal disorders (msd)



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Ergonomic plus model is a program that is initiated to deliver proactive and comprehensive services that would assist the organization in keeping the workforce healthy and productive. When implementing the process of ergonomic plus model, the risk factors are eliminated and since they are the cause of MSDs, the disorder is also reduced. Apart from the application of the ergonomic plus model, other factors should be considered too for the prevention strategies to be implemented (Huisstede et al., 2006). The best way to prevent musculoskeletal disorder is through implementing a preshift stretching program whereby all the employees in the company can work for a short period and others to replace them. Breaks should be part of the routine to enable the individuals to stretch their backs and relax their muscles.

Education programs and training should be incorporated where the employees in the industry will be given adequate skills on how to manage the machines there and therefore avoiding heavy physical workload that could lead to the disorder (Lachapelle et al., n. d.). Should any employee experience fatigue or discomfort from the injury, early intervention should be done and the situation should not be left to aggravate (Polychronakis et al., n. d.). If the employees are experiencing the risk factors, the person in charge should find out the cause and come up with ways to remove the risk factor. The textile companies should have an injury prevention specialist who would make weekly visits and conduct intervention consultations to the employees. All the process should be put together in order to provide effective results.

Research Design and Methodology

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Introduction

This chapter will identify the methods and techniques that will be used to gather information. The chapter will mainly discuss how the collection of data will be conducted. The main methods discussed in the chapter are focus group interview through and the use of questionnaires.

Mixed Method Research Design

This study will employ the use of mixed method research design. Mixed method design involve the carrying out of research that involves collection, analysis and integrating both qualitative and quantitative analysis. The researcher chose this research design because the technique's main premise is that it provides a better comprehension of the research problems (Creswell & Plano Clark, 2011). The technique employs the use of both quantitative and qualitative methods hence provides a clearer perspective of the problem in question than either of the technique. It offers a complete comprehensive understanding of the research problem and also help in explaining the findings of the research. There are also some limitations encountered when applying this method like the complexity of the approach, it consumes a lot of time and resources to plan and also implement the research. It can also be difficult to resolve some of the discrepancies that would arise from the interpretation of the findings.

Focus Groups Interview

Focus group involves an open discussion by a skilled moderator to discuss a certain issue. The participants would probably never meet again. Focus

group is a qualitative approach where a group of people will be involved and can be asked questions about their perception, concept, services, idea and opinions (Gill et al., 2008). In this case, the interviews will be done in a group of six individuals who have been working in the textile industries for a long period of time. The individuals should have worked in the industry for at least seven months. The interview will be carried out in anonymity such that the identity of the participants will not be disclosed. Informed consent will be obtained from the factory management and also individual workers before the interview. The information from the interview will be recorded and later transcribed for analysis. Among other things, the researcher will focus on identifying the major cause of the MSD among the textile industry workers. The researcher will assess the worker's condition of the equipment, lighting at their place of work, working space and tools, which could contribute significantly to the emergence of the disorder. In addition, the researcher will examine cases of the musculoskeletal pain, accidental injuries and mental health problems among the textile industry workers.

Questionnaire;

The researcher will use a questionnaire to gather information regarding the working conditions of the workers, working equipment, tools and lighting at the place of work, which could potentially lead to MSD. The questionnaire will have both structured and non-structured questions. Structured questionnaire contains only close ended questions. For instance one either ticks yes or no. unstructured questionnaire contains close-ended questioned exclusively. For instance the questions asked requires one to write an answer without choices. The questionnaires will be delivered to the chosen workers with an <https://assignbuster.com/musculoskeletal-disorders-msd/>

experience of at least seven months in the industry. The researcher targets a sample size of 120 workers all with more than seven months stays in the industries. Both genders will be incorporated to avoid biases. Along with the researcher; s questionnaire that the respondent will be given, there will be the World Health Organization Quality of Life brief questionnaire. The questionnaires are used to make analysis of the employees; health quality all over the globe. The questionnaire will entail two questions that would require the participant to rate his or her own self-perceived health and quality of life.

The Study Area

The study will be conducted in the target textile industry. The researcher will choose 2 textile companies where the research will be conducted. Then, the researcher will acquire a permit from the industries; authorities to be allowed to carry out the study working hours. The choice of the companies will be done randomly to avoid biases.;

Random Sampling Techniques

Random sampling is an unbiased surveying technique where subjects are selected from a large population. For example out of 200 individuals the 5th individual is selected. Random sampling technique will be used in selecting both the textile companies and the participants for the study. The use of random sampling technique in this study will be crucial in eliminating biases and enhancing the validity of the results (Lim, 2013). The list made will be presented to the industry management so that the researcher can be allowed to interview them according to their specific sites. Women will be interviewed separately from men so that the percentage can be identified on

the gender risk perspective. The researcher will follow the timetable that the supervisor will provide on the exact time that the respondents will be interviewed. The researcher estimates that the time needed for one respondent to fill the questionnaire is 5 minutes.;

Ethical Approval

Ethics in a study is a fundamental aspect of successful research. Ethical considerations while conducting an investigation ensure the appropriate design of the research, privacy, confidentiality, respect, informed consent and privileged communication (Guraya, London ; Guraya, 2014). In this study, ethical clearance will be obtained by the researcher from the institutional department and the Ethical Review Committee of Faculty of Medicine. There will be a permit letter allowing the researcher to proceed with data collection process and also obtained informed consent from the analysis of the study objects. Additionally, the researcher will acquire the permit from the specific company; s authorities. Since the issue involves sensitive matter, the researcher will ensure total confidentiality of the outcome for each. Also, there will be no mentioning or sharing of personal information and contacts.;

Pilot Study;;

A pilot study is a crucial part of any research process. A pilot study is a preliminary scale study conducted to evaluate time, cost, adverse events and feasibility in an attempt to predict an appropriate sample size and give out the performance expected. The importance of this study is that it increases the likelihood of success and it fulfils a range of important

functions in the provision of valuable insight for the other investigators. It helps the investigator to identify the feasibility of the research and possible unexpected limitations that could occur during the study (Leon, Davis ; Kraemer, 2011). It is therefore significant to the researcher because it alerts them on the best mechanisms to deal with challenges that may occur while conducting the investigation. In this study, the researcher will conduct a pilot study to 5 employees. The researcher will follow all the outlined steps of the actual research only that it will involve fewer participants than the actual research. Any challenges or new ideas that will come up during the pilot study will be noted and considered during the actual study.;

Data Analysis

Introduction;

This chapter will provide a discussion of the proposed techniques that will be used to analyze the collected data. The chapter focuses mainly on the content analysis method for qualitative data and the use of Excel or SPSS software for quantitative data.;

Results

The analysis of results will be done using both qualitative and quantitative techniques. The incorporation of the two methods of data analysis will ensure the presentation of data using graphical presentations and tables. The analyzed data will be presented in a way that will allow the other industries to learn and come up with machines that would make work easier

and minimize the physical hard work of the employees and poor working posture, thus reducing the MSDs demise.

Content Analysis;

The researcher will use content analysis method to lay out the information revealed by the participants as it coincides with one or three other people. Content analysis method is a systematically technique with written, spoken or even visual communication. For example content analysis can involve media, newspaper. Internet among others. It is a technique used to interpret documents. The replicable information will be evaluated and put in appropriate tabular categories. The researcher chose the content analysis since the method allows large textual information and systematic to identify the properties of the item under study (Bengtsson, 2016). In this case, the contextual information about the working condition of the textile industry workers will be analyzed and the risk factors evaluated so that recommendation can be given out on how to reduce the rate of employee; s risk to MSDs and the methods to use afterward.

The researcher will also analyze the results by identifying the scores made in the worker quality of life and health satisfaction. The method will help in identifying if the respondent will score higher in physical health as well as the psychological domain. This approach will also identify the individuals who will have been subjected to physical pain and poor working condition in the industry. In addition, the method will recognize the self-perceived quality of life and the rates of musculoskeletal complaints. The Quality of Life method

will allow the researcher to determine the rates of male and female who have Musculoskeletal complain.

Use of Excel Spreadsheets;

The quantitative data will be presented in the Excel spreadsheets where a percentage will be calculated concerning the individuals who needs to be well-taken care off. The result will also include descriptive data analysis with the inclusion of graphs and pie chart to indicate the participation of workforce and the time that the employees spend per day.;

Conclusion

Musculoskeletal disorder have been a major threat in work enforcement especially in factories where there is more physical task and bending with repetitive actions. The research aim to determine the appropriate techniques that can prevent the risks that increases the threat to this disorder especially in the textile industries. The researcher hopes that the study will expand the knowledge ergonomic and therefore establishing proper working tools, conditions and quipment to prevent this menace. With the use of mixed method research design and focus group interview, the research will identify the risks involved in the textile industry and analyze the results using content analysis and use of Excel spreadsheets. The results will be used in the future study to educate people on the best working conditions, tools and equipment to lessen work-related disorders. Musculoskeletal disorder is a demise that can be prevented for a better working condition and increased productivity.;;