BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

DEPARTMENT OF ENVIRONMENTAL SCIENCE

IMPACT OF BEHAVIOR-BASED SAFETY IN COMBATING WORKPLACE ACCIDENTS.THE CASE CITY OF HARARE COUNCIL, ZIMBABWE.

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A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE BACHELOR OF SCIENCE (HONORS) DEGREE IN SAFETY, HEALTH AND ENVIRONMENTAL MANAGEMENT

(ENVIRONMENTAL SCIENCE)

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i. DECLARATION

To be compiled by the student

Registration number B202566B

I Mazvita Patricia Hodera do hereby declare that this work related project is my original work and has not been submitted before. All the information derived from other sources is indicated in the project.

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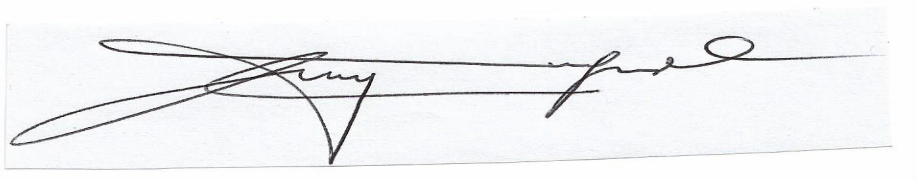
Signature: 

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Date8/10/24……

ii. DEDICATION

My siblings George and Joseph Hodera, who have served as my motivation, as well as my mother Hilda Hodhera, and husband Tinotenda Reza are all honored in this research. I appreciate all of your kindness and help.

iii. ACKNOWLEDGEMENTS

Firstly, I'd like to thank God for me to complete this study assignment. I thank the All-Powerful Lord God for his wisdom in helping me complete my degree program. I could not have reached this point without his grace. My appreciation is extended to my academic mentor, Dr. Dzveve, for his leadership, encouragement, and constant prodding to put in more effort in order to see this research project through to completion. In addition, I would like to thank my family for their financial, emotional, and spiritual support during this writing process. I am grateful to the Safety, Health, and Environment (SHE) department of the Harare City Council, Mrs. L. Taru, the main SHE officer, and Mrs. Mushaikwa, the SHE officer of the Department of Works, for supplying the necessary data for this research.

iv. ABSTRACT

The study's primary objective was to evaluate how Behavior Based Safety could reduce workplace accidents at Harare city council. The study's goals were to ascertain how employees felt about behavior-based safety and to look at how well BBS identified and addressed health and safety problems, to evaluate how well a BBS program works to prevent workplace accidents, and to evaluate how well BBS reduces risky acts in the workplace. 500 employees were chosen as a sample. The components of this study were chosen using stratified systematic random sampling to ensure that each component was sufficiently and equitably chosen to ensure accurate results. In every department, research questions were self-administered. The research used questionnaires, interviews and observations as data collection methods to attain the objectives and scope of the research. Data were analyzed using the Statistical Package for Social Sciences (SPSS) and Microsoft Excel.

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v. KEY WORDS

Behaviour-based safety- A systematic application of psychology study on human behavior to the difficulties of safety and health issues to influence individual employees' behavior to improve workplace safety performance.

Occupational Health and Safety - An interdisciplinary field dealing with the health, safety, and wellbeing of persons from any occupation

Occupational injury or illness - An injury or workplace sickness that happpens while doing routine job responsibilities or as a result of exposure to a hazard while engaging in typical job tasks.

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BBS-Behavior Based Safety

NSSA-National Social Security Authority

OHS-Occupational Health and Safety

ZIMSTAT-Zimbabwe National Statistics Agency

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1 CHAPTER ONE

Introduction

Health and safety policies and procedures are necessary to safeguard employees and stakeholders who may be impacted by workplace dangers, as occupational safety and health issues are a major concern for Harare City Council employees. The Harare City Council study evaluates the effectiveness of behavior-based safety in preventing workplace accidents. This chapter focuses on the background to the study, statement of the problem, objectives of the study, and significance of the study, study area map, physical characteristics of the area of study, and the socioeconomic characteristics of the area of study.

1.1 Background

To have a safe and healthy work environment, occupational safety and health is crucial. By maintaining a safe working environment, occupational accidents can be prevented and their substantial human, social, and financial costs can be reduced. (Alli 2008). Approximately 2.5 million deaths are attributable to lethal diseases, and over 350,000 deaths are attributable to deadly accidents. More than 313 million workers are involved in nonfatal workplace accidents that result in significant injuries and missed work days. The National Institute of Occupational Safety and Health (NIOSH) in the United States estimates that each year, at least 10 million people experience work-related injuries.

Occupational health and safety (OHS) service supply has long been a global problem. The importance of safety issues to the global community is exemplified by the World Health Organization's (WHO) 2008–2017 global plan for action and the International Labor Organization's (ILO) Convention No. 161 of 1985. Unfortunately, when it comes to offering workers occupational health treatments, developing nations are falling well behind their developed counterparts. LaDou reports that whilst just 5–10% of workers in underdeveloped nations, like Zimbabwe, have access to proper occupational safety and health services, 20–50% of workers in wealthy countries do. Even worse, in other countries, including Tanzania, less than 5% of workers have access to occupational health and safety service ,Even worse, in other countries, including Tanzania, less than 5% of workers have access to occupational health and safety services.

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Heinrich (1941) found that, based on a foundation of 75,000 industrial mishaps, 88% of accidents were caused by unsafe human behavior, 10% by harmful psychological environments, and 2% by unresisting causes. According to Heinrich's research, humans are capable of preventing and controlling 98% of accidents. Human factors are now a major contributing component in a large number of industrial accidents. As a result, the prevention of accidents and the regulation of human behavior have become crucial topics. To deal with human unsafe behavior, the most effective method is Behavior Based Safety (BBS). BBS is one successful accident prevention technique that has been used extensively since the 1980s in both American and European nations.Despite the fact that most accidents are caused by improper behavior and attitudes toward occupational safety and health, BBS has not been implemented at the Harare City Council. Lack of knowledge, aversion to change, and a lack of assistance and training are a few of the causes.

Many firms are employing behavior-based safety to counteract the constant threat of employee injuries and losses. Behavioral safety involves encouraging safe behaviors and involving all levels of the workforce in order to achieve even greater improvements in safety performance. According to Kaila (2008), behavior-based safety is frequently characterized as a top-down strategy supported by safety professionals, with a bottom-up approach (frontline staffA behavior-based safety strategy emphasizes interventions that are people-focused and frequently include carefully setting goals and delivering timely feedback on safety-related behaviors., and conducting one-on-one or group observations of employees carrying out regular job tasks (Agnew J. &Ashworth c 2012).

Additionally, a behavior-based approach only concentrates on the quantifiable and observable behaviors that are essential to safety. This task-oriented perspective on behavior regards safe behavior as an essential work-related competency. The strategy is based on the idea that applying safe behaviors consistently will lower the number of accidents (Agnew J.& Ashworth c 2012). In the 1970s, behavior-based safety techniques were initially created and implemented in the United States. One of the earliest studies on the use of behavioral techniques to increase occupational safety in manufacturing was done by Komaki et al. Their research showed that one approach to encourage safe behavior at work was to define safe working practices through behavior and then positively reinforce them.

Combining Komaki et al.'s research with insights from the quality management domain, Krause and Hidley identified staff participation, process indicator use, training, and feedback as critical elements of a long-lasting continuous improvement process. Krause et al. discovered that the best method for changing industry behavior was to provide instantaneous vocal feedback from peers. Sulzer and Azaroff also demonstrated that safe and risky behaviors must be encouraged in order to successfully alter behavior.

1.2 Problem statement

A number of employees at Harare city council get injured from workplace accidents every year. Some of the injuries are caused by general mechanical faults from incorrectly used or malfunctioning equipment, fire explosions, sprays of chloride, slips and falls, and leaks of toxic gases like hydrogen sulfide. Harare City Council has experienced seventy injuries which were caused by unsafe acts and attitudes.

Forty of these injuries have resulted in permanent disabilities which is a sizeable number. The organization has tried to put in measures to prevent work related accidents such as the safety and health policy, awareness campaigns and trainings. Although the efforts are being made this has brought about a slight change and occupational injuries and accidents still remain a concern at Harare City Council. Given the central importance that safety plays at workplaces, it is important to identify tools for controlling this type of mishap. A possible tool that can be used is the Behavior Based Safety which is a important occupational safety and health tool employed in accident reduction. However, this tool has not been used by Harare City Council to combat workplace accidents and This encouraged the researcher to investigate more on the impact of the instrument to combat workplace accidents in Harare City Council.

Accident statistics report for Harare city council

Table 1.2.1

Month	Number of injuries	Details of accidents
January	4	Slip, trip and falls Hit by falling tools and equipment
February	5	Ethanol tank explosion at a fire incident Worker experienced muscoskeletal injuries
March	15	Slip ,trip and falls Trappings by v belt and amputated hand index fingers
April	9	Trapped by chain at boom gate Chocked by Hydrogen sulfide Motor vehicle accidents leading to injuries
May	5	Dog bites Worker was hit by a vehicle Worker got cut by a grinding machine

June	5	Assaulted by vendors Falls from a ladder Electrical shocks
July	4	Slips and falls injured by operating machinery
August	3	Worker was hit by an oncoming vehicle Chloride splashes on the face
September	9	Slip, trip and falls Workers struck by vehicles
October	5	Trapped by refuse blade Slip, trip and falls
November	6	Trapped by tail blade rail while operating Fall from heights

1.3 General objective

To assess the impact of behavior based safety to combat workplace accidents at Harare City Council.

1.3.1 Specific objectives

i. To ascertain how staff members see behavior-based safety

ii. To look into how well BBS detects and addresses health and safety problems

iii. To evaluate how well BBS has reduced risky workplace behaviors

iv. To evaluate how well a BBS program works to prevent workplace accidents

1.4 Hypothesis

H_0 BBS has an impact on combating workplace accidents

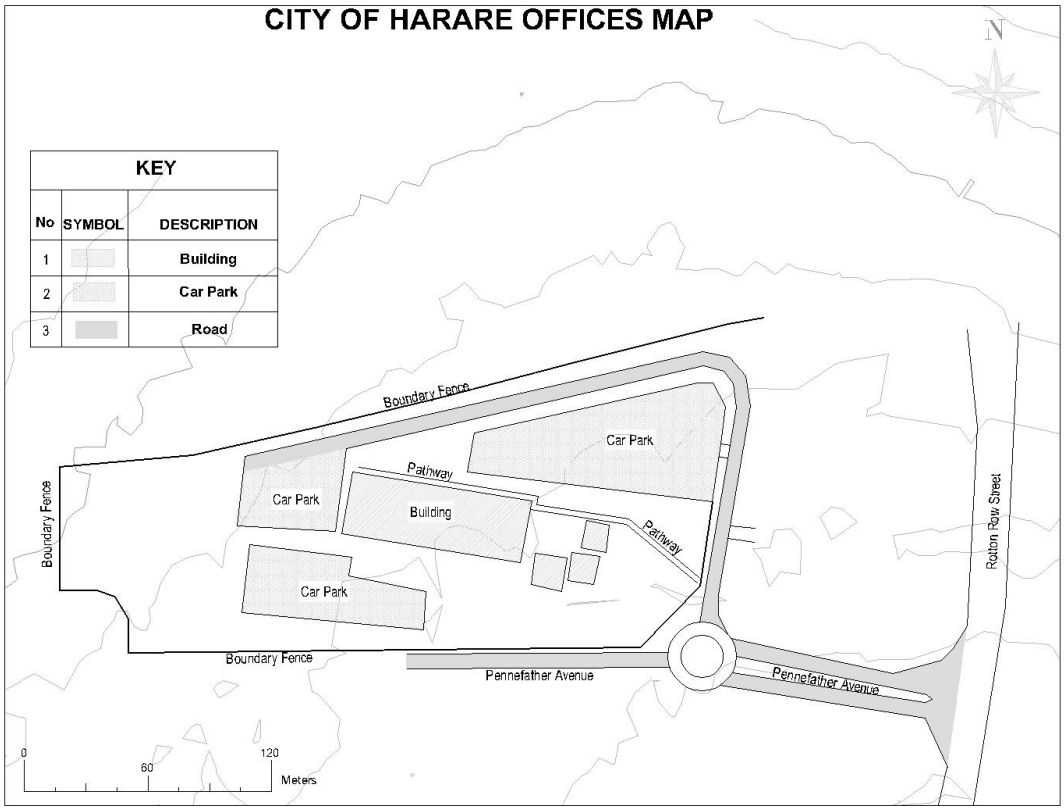
H_a BBS has no impact on combating workplace accidents

1.5 Significance of study

Occupational injuries and accidents remain a concern at city of Harare Municipality. An analysis on the impact of behavior based safety to combat workplace accidents at Harare City Council becomes significant. The research is hoped to help Harare City Council and other organizations who want to use behavior based safety at their organizations to combat workplace accidents. This research will draw a conclusion on whether BBS can be used to combat workplace accidents at Harare City Council hence providing a panacea which can be recommended to other organizations by the NSSA of Zimbabwe to combat workplace accidents.

The research will contribute to the reduction of risk or injury brought on by either risky behaviors and attitudes or subpar occupational health and safety. The study aims to examine the efficacy of behavior-based programs that reduce risks, occupational injuries, and accidents; enhance near-miss reporting; reduce accident costs; and, most importantly, raise safe behavior levels (Sacks, 2006).

1.6 Study Area Map



1.6.1 Physical characteristics of the area

Harare City Council is situated in the northern eastern Zimbabwe in the country's Mashonaland region. The Harare provinces constitute the Harare City Council. The city has an area of 982.3km squared. It has a subtropical climate with 470–1350 mm of rain falling on it each year. Owing to its highveld plateau location, Harare experiences exceptionally low tropical temperatures, averaging about 18°C. Because of these climate conditions, natural vegetation is supported, with jacaranda and musasa trees developing vibrant canopies from October to November each year. City of Harare experiences a subtropical highland climate characterized by mild temperatures and distinct seasons. Summers are warm and rainy, while winters are dry and mild. Harare is situated

on a plateau and is characterized by rolling hills with the surrounding areas being compose of grasslands and small mountains.

The city has well developed infrastructure with modern buildings and a well maintained road network. The city also has several parks, gardens and recreational areas providing residents with green spaces to enjoy. The city showcases a mix of architectural styles, ranging from colonial era buildings to modern structures. Some notable landmarks in the City of Harare include the Harare Central Business District which features high rise buildings .The city is not situated near major rivers and lakes however there are several small dams nearby providing water resources for both recreational and agricultural purposes. The immediate surrounding areas of Harare have fertile soils that are suitable for agriculture. While Harare is highly urbanized area some wildlife can still be spotted in the nearby conservation areas and game parks. These areas provide habitats for various animal species including antelope, zebras.

1.6.2 Socio Economic characteristics of Harare city council

The city of Harare is a service provider, and the Urban Housing Act governs its operations and products. The services provided include education, health, recreation, water and sanitation, fire and ambulance, road building and maintenance, and burial and cremation services. City of Harare Council. The human capital department is responsible for recruitment, training, remuneration, employee welfare and formulation and implementation of compensation policies such as NSSA Act for the benefit of council employee's. The city health department provides primary health care services to residents and employees. Harare City council has the largest number of clinics in Zimbabwe with a total of 52 health Centre's in the country. Its two main hospitals are Wilkins hospital and Beatrice infectious disease hospital. The city councils workers receive medical support from these clinics and hospitals. The department of housing and community services helps the employees to buy houses at cheaper prices in the city and it also helps to provide burial services for employees. The department of chamber secretaries provides emergency services such as ambulances and fire brigade to residents and employees.

2 CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The findings from the literature concerning behavior-based safety's ability to prevent accidents are the main topic of this chapter. It covers the theoretical framework of BBS, the concept of BBS, implementations of BBS at workplaces, the effectiveness of BBS programs, employees' perception of BBS, BBS, and safety intervention, the success of BBS, and the implementation of the problems of BBS.

2.2 Theoretical framework of behaviour based safety

The phrase "behavior-based safety" (BBS) refers to the behavioral theory of accident cause and prevention. There are seven essential principles of BBS: intervention that focuses on employee behavior; Identifying external elements that will assist understand and improve employee behavior (from a workplace safety standpoint)); Direct behavior using events before the desired conduct; emphasize on the positive effects that will emerge from the desired behavior as a strategy to encourage employees; and use the scientific method to improve attempts at behavior.

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BBS is a creative and useful way to apply conventional behavioral science to the issue of workplace safety. These beliefs apply to any circumstance where some human behaviors are desirable and others should be avoided. To encourage desired (safe) actions and discourage undesired (unsafe) behaviors, positive reinforcement in the form of incentives and rewards is employed (Krause, 1995). The "ABC" model is used by proponents of behavior-based therapy (BBS) to encapsulate the idea of comprehending human behavior and creating suitable remedies when the behavior is unwanted (unsafe).

2.3 Behavior Based Safety (BBS) Concept

The science of behavior modification is applied to practical issues in behavior-based safety, or BBS. Behavior-based Based Safety focuses on what people do, analyzes why they do it, and then applies a research-supported intervention strategy to improve what people do (A. Arunagirinathan 2013:). Human conduct is influenced by a person's attitude, personality, motivation, and memory in addition to the physical and mental traits that make up the individual and his surroundings. Behavior-Based Safety (BBS) is a procedure that lessens risky behaviors that may result in mishaps at work. Behavior-based safety management highlights the connection between workplace injuries and losses and focuses on identifying and changing essential safety habits.

Behavior-based safety refers to the methodical application of human behavior psychology research to safety and health concerns in order to modify each employee's behavior and enhance workplace safety performance (Cooper, 2005 in Sacks 2006). Marsh (2011) claims that BBS is a procedure that lessens risky behaviors that may result in mishaps at work. The method functions by finding the reasons behind risky behavior and rewarding safe behavior. In order to prevent unsafe behavior and to identify and reinforce safe conduct, behavior strategies are applied (NIOSH, 2009).

2.4 Implementation of BBS in the workplace

According to the study that was done by Salina Peoples Igbinoba (2013) A three-step methodical process—observation, documentation/measurement, and feedback—is used to introduce BBS gradually into the workplace. The fundamental approach doesn't change, even if many firms select various integration strategies at each stage. These include identifying "at risk" behaviors that compromise safety, monitoring and recording them, establishing realistic objectives, giving engaged parties both positive and negative feedback, and praising and rewarding improvement (Al-Hemoud et al., 2006).

The method that is most frequently utilized for BBS observations is the behavioral checklist. It should represent the "at risk" behaviors that are most common for the organization in terms of injuries; additionally, it should assess the behaviors that raise the possibility of fatalities. Following

the creation of observations, information should be acquired and examined in order to determine realistic safety-related objectives for the company. This information is collected in order to compare it with measurements made following the implementation of BBS inside the company. This procedure makes it visible whether the BBS program is effective and/or whether the number of injuries is declining. Additionally, it can be applied to quantify particular program elements (e.g., employee involvement, observations, etc.). Reports that can be utilized as a tool for program improvement can be created using the data. The BBS participants can also visibly monitor their progress thanks to data and measurement. The information also enables the BBS administrators to quickly recognize and address trends in injuries. All participants are able to talk about the program and their own development toward more safe observations at the last stage of the BBS process. Giving BBS participants feedback fosters an atmosphere where "at-risk" actions that improve safety go down and behaviors that improve safety go up (DeJoy et al., 2005).

2.5 Effectiveness of Behavior Based Safety Programs

Nielsen and Austin (2005) claim that behavioral Safety strategies have significantly reduced injury rates and improved the adoption of particular safe behaviors in a variety of work environments. The levels of safe behaviors would have increased above all else, but proper implementation of BBS programs will result in a decrease in hazards, workplace injuries and accidents enhanced reporting of near-misses and reduced accident costs

s. (Sacks, 2006). Apart from the quantifiable advantages, the BBS program also yields real benefits, as Anderson (2009) demonstrates. This program improves workplace communication, managerial commitment, employee engagement, and safety leadership.

Additionally, Kaila (2008) found that 80–90% of accidents were caused by risky actions or behaviors after conducting over 25 safety awareness survey organizations in various parts of India. As a result, he underlined The importance of behavior-based safety (BBS) and noted that BBS has shown promising outcomes in terms of a decrease in accident rates and safety
conduct among nations and industries.

2.6 Empoyees perspective on behaviour based safety

Employee impression of workplace safety is one of the variables thought to affect safety compliance (Hayes, Perander, Smecko, & Trask, 1998). According to presented empirical evidence (Barling, Loughlin, & Kelloway, 2002; Mearns, Whitaker & Flin, 2003; Zohar, 1980, 2000), employee perceptions of workplace safety are significant because they are associated with higher adherence to safe work practices and a lower number of accident-related injuries.

According to the empirical evidence presented (Barling, Loughlin, & Kelloway, 2002; Mearns, Whitaker, & Flin, 2003; Zohar, 1980, 2000), employee perceptions of workplace safety are important because they are associated with higher adherence to safe work practices and a lower number of accident-related injuries. Hayes et al. (1998) classify employees' perceptions of safety into five categories: job safety, coworker safety, supervisor safety, management safety, and satisfaction with the safety program. The degree to which employees believe their jobs are safe when doing their duties is known as job safety (i.e. if the job is seen as dangerous, risky, scary, etc.). Coworker safety is the perception of other coworkers' safe work practices (e.g., whether they observe safety regulations or urge others to do the sameSupervisor safety refers to the extent to which a supervisor is perceived to display safety-related behavior at work—that is, if they enforce safety regulations, act on safety advice, etc.. The term "management safety" describes how much management is thought to foster a safety culture at work (i.e., if it offers safe working conditions, encourages safe behavior, etc.). Ultimately, the degree to which the safety program is deemed satisfactory is indicated by satisfaction with the program (i.e., if the program is viewed as important, worthwhile, ambiguous, etc.).

2.7 Behavior based safety and safety intervention

When used appropriately, behavioral interventions can result in improved safety as well as other business advantages. Although concluding that the behavior domain of safety needs to be given more attention is only one aspect of the answer, it is still unclear how this might be accomplished. According to earlier studies, in order to address the behavior part of safety, a behavior-based safety

intervention tool must be used (Krause, 1995; Geller, 1996). The use of concepts and techniques from applied behavior analysis to industrial safety is known as a behavior-based safety intervention. These ideas include corrective feedback to reduce inappropriate conduct and to enhance proper behavior, encouraging feedback and positive reinforcement (Blair, 2003:88).

Only those visible, quantifiable behaviors that are essential to safety at a specific site facility are the focus of the behavior-based approach to safety (Krause, 1995). This perspective on behavior is very task-oriented and treats safety-related conduct as essential work-related abilities that need to be recognized and listed. In the behavior-based approach, the problem (at-risk behaviors) is first identified, and an intervention process is then designed and put into action to reduce the behavior that is contributing to the problem and increase the behavior that can help to resolve it (Geller 2004). The behavior-based approach has four parts (Geller, 2004): defining the behavior to be increased or decreased, formal observations of the behavior, and recording the observations in a data management system.

In his research, Guastello (2005) examined the relative significance of various approaches to one another. According to his findings, the behavior-based safety method reduced injuries at seven sites by 59.6%, while the combined effects of other approaches (e.g., ergonomics, engineering modifications, government intervention, management audits, stress management, poster campaigns, staff selection, and near-miss reporting systems) all helped to reduce accidents by 40.4% (Guastello, 2005). According to Rhoton (2000), the behavioral safety program was effective in reducing miners' safety breaches by utilizing behavioral strategies such as reinforcement, observation, and feedback.

2.8 Success of behaviour based safety

By working as a team to identify hazards and implement control measures, behavior safety fosters employee responsibility and lowers workplace accidents and injuries (Tuncle et al., 2006). According to research that is currently being conducted in Europe and the US, behavioral safety reduces injuries by about 30%, with a range of 20% to 50%, according to McSween and Matthews (2003). Behavior-based safety is one of the safety strategies that empirical research has used to lower injury rates and alter safety procedures across various sectors.

In a study published in 2003, Zohar and Luria examined how supervisory safety and quality standards were enhanced at a milk product facility through the use of weekly feedback. Researchers have shown that gains in safe conduct are correlated with increases in productivity (Sulzer-Azaroff and Santamaria, 1980). According to Krause (2002), thirty percent of the managers polled felt that the introduction of a behavior-based safety program had improved quality and productivity. Therefore, a number of scholars propose that it would be helpful to show how increases in safe behavior—which are brought about by behavior-based safety programs—relate to increased productivity (Austin et al., 1996; Sulzer-Azaroff and Austin, 2000; Zohar and Luria, 2003).

2.9 Implementation problems of BBS

Implementing BBS can be challenging mostly because of attempts to cut corners because of perceived time constraints, reduce the amount of resources needed, or receive subpar advise from a behavioral safety consulting firm with little experience. These expedients show a lack of dedication to ensuring the process functions (Dominic Cooper, "What is Behavioral Safety?" 2018). Cooper says that implementing a behavioral safety system needs to be done "right the first time," since employees rarely give a company a second chance.

Cooper found in his research a number of traps that need to be avoided while putting a BBS software into place. Lack of employee buy-in is the first. Decision-making processes need to involve the workforce. You have to keep them updated at every stage. Program success will be hampered if the staff does not support the BBS initiative. The observation checklist does not specifically address actions that lead to accidents, according to Cooper's second claim. This error primarily stems from improperly evaluating the event rate. Ascertaining which behaviors and locations require attention requires careful analysis of the safety data.

Failing to accurately define the dangerous behaviors is the third error to avoid. To correctly identify the risky activity, incident reports should include all relevant details regarding how the accident happened. Adding the names of the employees you are observing is the fourth mistake you should avoid. Programs with names associated with unfavorable outcomes make employees wary. A uniform procedure for conducting observations, providing comments, and updating communications is also required. The last and most important error to avoid is not having

management's support. The effectiveness of the BBS program will be compromised if management does not provide the necessary resources to support it.

3 CHAPTER 3: RESEARCH METHODOLOGY

3.1 Research Design

A survey research with employees of the Harare City Council was carried out. The survey study design (questionnaire) was selected by the researcher since it is the most effective for determining the broad nature of an issue. A survey was employed since it allowed for a thorough investigation into enhancing the current state of affairs and provided information regarding the problematic scenario. Since this survey was qualitative and very adaptable, the researcher started with no preconceived notions about the results of the study. This survey examines the role that behavior-based safety plays at Harare City Council in preventing workplace accidents.

3.2 Target population

Male and female employees, totaling 2498, comprised the study's population. One department of the Harare City Council, the Department of Works, makes up the population.

The researcher chose this population because it had the highest number of injuries and accidents.

3.3 Sampling procedure

The components of this study were chosen using stratified systematic random sampling to ensure that each component was sufficiently and equitably chosen to guarantee accurate results.The six sections (Strata) of the Department of Works—amenities, city architects, land management and development, mechanical and electrical, roads, and planning division—were used to stratify the employees into groups based on the sections in which they were employed. The sample sizes within the groups were determined using linear proportion with a total sample size of 120 employees. The relevant samples within the strata would then be selected randomly by using the random function of a scientific calculator after assigning a number to each worker using registers.

Table 3.3.1

Stratum	Strata	Number of elements in strata	Elements to be sampled (sampled size)
Amenities	1	945	45
City architect	2	200	10
Land management development	3	80	4
Mechanical and Electrical	4	160	8
Roads	5	1066	51
Planning	6	47	2

$$Sample\ Size = \frac{Number\ of\ elements\ in\ strata}{Total\ Population}\ x\ Total\ Sample\ Size$$

For example for Roads department

$$Sample\ Size = \frac{1066}{2498}\ x\ 120$$
$$= 51$$

3.4 Primary data sources

The researcher used three primary data sources observation guide, interview schedule, and questionnaire.

3.5 Methods of primary data collection

Primary data collection is the process of acquiring information from a firsthand source.The researcher employed questionnaires, interviews, and observations as data gathering tools.

3.5.1 Interviews

The researcher conducted interviews as a component of the data. Representatives from various departments who were chosen by those departments for one-on-one interviews were in charge of safety and health. With the use of a checklist, the safety representatives performed the interviews. The information gathered from the interviews helped fill in gaps in the questionnaire and observational data. They also helped the author discover additional factors that influence productivity.

3.5.2 Questionnaires

Workers' information was gathered using questionnaires. All staff respondents received questionnaires, which they were to fill out and then gather. There were both closed-ended and open-ended questions on the survey; in the former, respondents had to select an option from the list and mark the corresponding spot; in the latter, they may freely express their opinions or feelings. The 120 employees each received a questionnaire from the researcher. Workers were assisted in understanding some of the questions they were unable to comprehend during the pilot stage by the researcher. Additionally, the tool guarantees that respondents provide less biased answers free from peer pressure (Maponga et al. 2017). This is because respondents feel comfortable sharing controversial opinions because they can stay anonymous, as opposed to in interviews where they would feel exposed and provide little to biased information.

3.5.3 Observations

To get data, the researcher made observations. The researcher observed occurrences and behavior in their natural environments to collect data. During the observation exercises, the researcher recorded the data using a notepad and cameras. For this study, a unique critical behavior checklist (CBC) with 23 observation items and 6 observation categories was created. Based on direct observation of coworkers engaging in risky activity, employee remarks, and recurrent complaints from employees, the researcher chose the critical behaviors (e.g., low back pain and eye strain caused the selection of 'awkward sitting posture' critical behavior). Safety delegates observed workers and graded their performance in terms of safety. After observing the participants, the certified safety representatives classified their work conduct in terms of safety as either safe or at risk.

As long as pertinent events and participants are recorded along with the relevant constructs, observational research fulfills the research aims, which is why it was successful (Watson, 2008). Observations enable the researcher to learn about the environment in which people cannot disclose privacy and it also allows researchers to better comprehend and capture the context in which people interact. Firsthand familiarity with a setting enables the researcher to be open to discovery and induction rather than speculating what the context is like (Bryant, 2008).

3.6 Secondary data sources

The study's secondary data came from a number of prior investigations published in journals in the pertinent subject. Periodicals, departmental safety reports, statistics on accidents, reports from investigations, audits, overtime logs, safety inspection reports, and annual reports

3.7 Ethical considerations

Confidentiality and informed consent are two ethical factors that guided the research's conduct. The researcher focused on the respondents' voluntary involvement under informed permission, which allowed the respondents to voluntarily take part in the study. The participants were reassured that the research will be conducted for scholarly purposes, which encourages them to freely contribute. To prevent staff intimidation, it was made explicit that no identities would be mentioned during the research.

3.8 Data analysis

SPSS, or the Statistical Package for Social Science, and Microsoft Excel were used for analysis. In order to assess the importance of the study's findings, data was examined using Chi-Square testing. Statements pertaining to the main themes were grouped together in the inductive abstraction analysis of the qualitative data. To overcome scheduling constraints, data analysis was conducted concurrently with data collection. The significance of the findings was evaluated using the following analytical formula (Babbie, 2001).

$$\chi^2 = \sum_i \frac{(O_i - E_i)^2}{E_i}$$

Where Oi is the number of cases in category I that have been seen, and

Ei is the number of cases in category I that are expected.

The distinction between the actual and predicted numbers of responses in each category

was computed to get this chi-square statistic. After then, the difference was squared and divided by the anticipated quantity of answers for that category. The chi-squared value was then calculated by adding these values for each category. The significance threshold, where $\alpha = 0.05$ or $\alpha < 0.05$ would indicate that the values were significant, was determined using a 95% confidence level. The outcome would not be significant at $\alpha > 0.05$.

3.9 Limitations of the study

The study's limitations included the possibility that respondents' opinions about expressions were influenced by their own biases. It was discovered that some respondents were reluctant to offer the requested information when the data was being gathered. Nonetheless, the aforementioned constraints do not diminish the high caliber of the current study's output.

4 CHAPTER 4: DATA PRESENTATION

Introduction

This chapter thoroughly examines, analyzes, and presents the survey data that was gathered. To accomplish this goal, quantitative data analysis applications such as SPSS or Microsoft Excel were used. These tools made it easier to review and comprehend the questionnaire responses. Tables and figures were used to properly convey the collected insights, ensuring a clear and straightforward grasp of the research results

4.1 Response rate

This study aims to collect data from 120 Harare municipal government employees. A combination of manual and computerized questionnaires were circulated to achieve the response rate reported in table 4.1 below.

Table 4.1 Response Rate

Instrument	**Distributed**	**Returned**	**Response Rate%**
Questionnaire	120	118	98%

Table 4.1 indicates the response rate of the Harare City council employees, shedding light on the effectiveness of the data collection methods employed in the study. With 120 questionnaires distributed among the target population, an impressive 98% response rate was achieved. This high response rate signifies a robust level of engagement and cooperation from the participants, ensuring a comprehensive dataset for analysis. Such diligent participation enhances the reliability and validity of the study's findings, underscoring the commitment of the Harare city council

workers to contributing to the research endeavour. A larger sample size generally translates to more reliable and generalisable findings.

4.2 Gender of respondents

This study recognizes gender as possibly crucial when assessing the impact of behaviour-based safety on combating workplace accidents within the Harare city council. Figure 4.1 summarizes the participant demographics by gender, which will be useful in extracting gender-specific insights from the data.

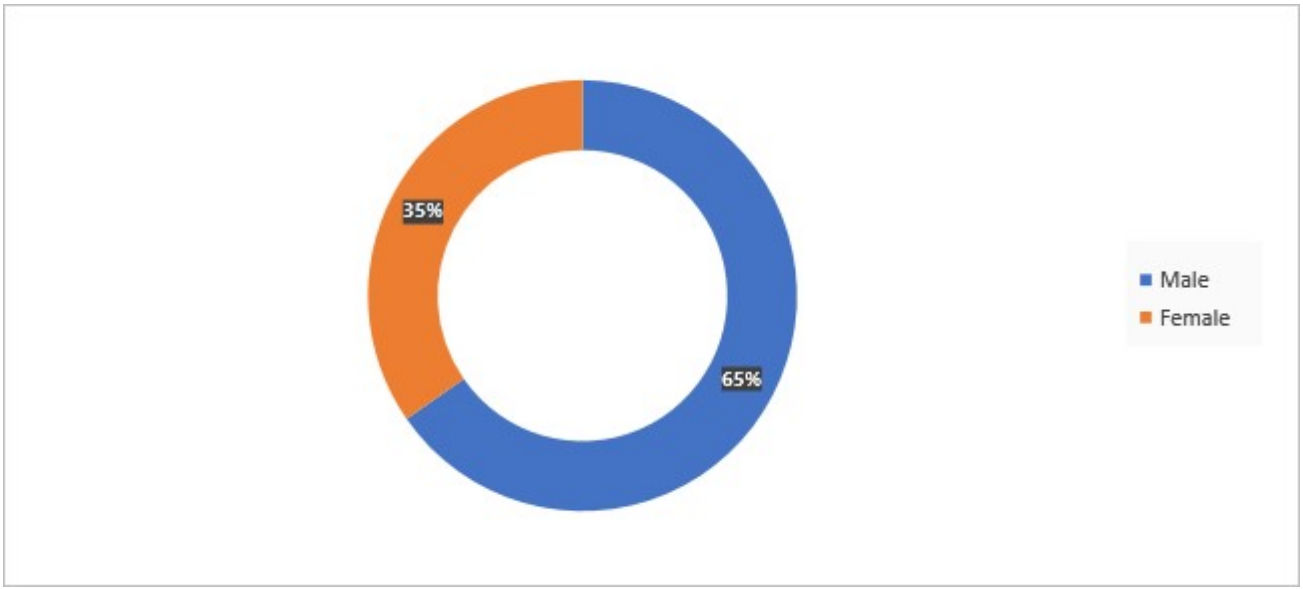

Figure 4.1: Gender distribution

The data represent the gender distribution among Harare city council workers as follows: approximately 65% are male, while about 35% are female. This breakdown provides valuable insights into the gender composition of the council's workforce. Such information is pivotal for understanding the gender dynamics within the organisation. It may serve as a basis for addressing potential gender-related issues or implementing targeted policies to promote gender equality and diversity in the workplace.

4.3 Age distribution

This section investigates the age distribution of the Harare city council employees who took part in the study. Figure 4.2 depicts the age distribution among respondents. The graphic categorizes individuals into different age groups and displays the percentage of participants in each group..

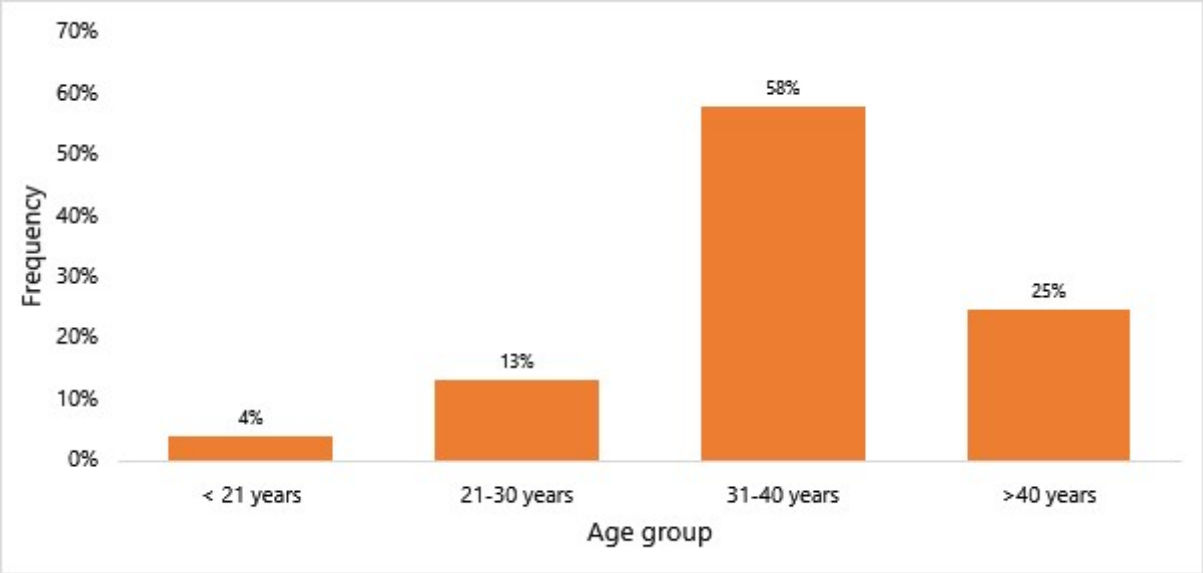

Fig 4.2 Age groups of employees

Figure 4.2 shows that 4% of workers are younger than 21 years old, which is a relatively small percentage of younger workers. A significant portion, comprising 13%, falls inside the age range of 21 to 30 years, suggesting a more substantial representation of younger adults in this range. The majority of the workforce, accounting for 58%, falls within the age range of 31 to 40 years, indicating a substantial concentration of mid-career professionals. Additionally, 25% of the workers are over 40 years old, highlighting a notable presence of experienced individuals within the council. This breakdown offers valuable insights into the age demographics of the workforce, which can inform workforce planning, training programs, and succession planning initiatives within the Harare City Council.

4.4 Years of service at Harare city council

The number of years the participants worked at Harare City Council and participated in this study constitutes a significant factor when evaluating the impact of behaviour-based safety on combating

workplace accidents within Harare City Council. Table 4.2 summarises the participants' years at Harare City Council.

Table 4.2: Years of Service at Harare City Council

Years	**Frequency**	**Percent (%)**
<5 years	9	8%
5-10 years	38	32%
11-15 years	45	38%
>15 years	26	22%
Total	**118**	**100.0**

Table 4.3 shows that 8% of the workforce has been employed for less than five years, indicating a small proportion of relatively new employees. A substantial portion, comprising 32%, falls within the 5 to 10 years of service range, suggesting many employees are in the early to mid-career stages. Furthermore, 38% of the employees have served between 11 and 15 years, indicating a significant presence of mid-career professionals within the council. Additionally, 22% of the workforce has been employed for over 15 years, highlighting a notable contingent of long-serving employees. This breakdown offers valuable insights into the tenure distribution of the Harare City Council workforce, which can inform human resource management strategies, retention efforts, and organisational development initiatives.

4.5 Nature of job

Figure 4.3 illustrates a succinct visualisation of the diverse nature of job roles among the Harare City Council workers who participated in the study. This visual representation provides valuable

insights into the range of responsibilities and tasks undertaken by employees within the organisation and offers a comprehensive overview of the workforce composition and its various functions.

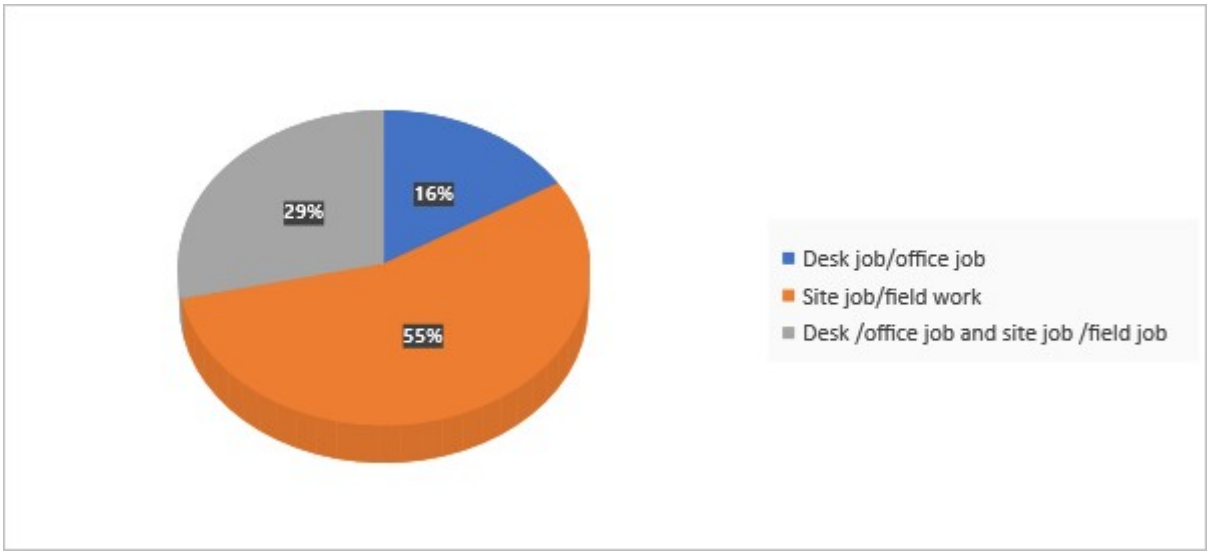

Fig 4.3 Nature of Job

Figure 4.3 shows that approximately 16% are engaged in desk jobs or office-based tasks, indicating that a portion of the workforce is primarily involved in administrative or clerical duties. The majority, accounting for 55%, are engaged in site jobs or fieldwork, suggesting a significant proportion of employees working in various locations outside the office. Furthermore, 29% of employees are involved in both desk jobs/office jobs and site jobs/fieldwork, highlighting a segment of the workforce with responsibilities spanning indoor and outdoor settings. This breakdown offers valuable insights into the organisation's diverse job roles and work environments, which can inform resource allocation, safety protocols, and job design strategies tailored to employees' specific needs.

4.6 Absence at work

In this section, the researcher analyses the occurrence of workplace accidents among the Harare City Council employees who were part of the study and the duration of their absence following such incidents. Specifically, we aim to discern whether these accidents resulted in absences lasting three days or more or if they led to shorter periods of absence totaling less than three days. By

examining these distinctions, we can gain valuable insights into the frequency and severity of workplace incidents within the organization summary of findings is displayed.

in table 4.3 below.

Table 4.3 Absence statistics due to work accident

Status	**Less than 3 days**	**3 days or more**
Yes	36%	25%
No	27%	11%

According to Table 4.3, among those who reported experiencing a work accident ("Yes"), a higher percentage (36%) were absent for less than three days compared to those absent for three days or more (25%). This suggests that a significant portion of individuals who encountered work accidents were able to return to work relatively quickly.

Conversely, among those who did not report experiencing a work accident ("No"), only 27% were absent for less than three days, while a notably lower percentage (11%) were absent for three days or more. This indicates that most individuals who did not experience work accidents had shorter absences. The table highlights the varying impact of work accidents on the duration of absences, providing valuable insights into the prevalence and severity of such incidents within the Harare City Council workforce.

4.7 Harare city council work experience survey

Table 4.4 showcases the responses from Harare City Council employees regarding various aspects of their work experience. Participants were asked to indicate "YES" or "NO" in response to statements about different facets of their job environment, including training, safety, support, resources, career opportunities, communication, workload, recognition, and overall satisfaction.

This table offers insights into the perceptions and experiences of Harare City Council employees, providing valuable information for understanding employee sentiment and identifying areas for potential improvement within the organisation.

Table 4.4: Harare City Council Work Experience Survey

STATEMENT	YES	NO
Discipline processes are rigorously implemented when safety rules are broken.	65%	35%
Disciplinary process in place for breaking safety regulations.	81%	19%
Issues with safety are always resolved right away.	52%	48%
The tools and supplies required for safe operation are always available	37%	63%
Management solely follows safety regulations.	65%	35%
Safety regulation violations are taken very seriously by managers.	70%	30%

Most respondents acknowledge the presence of disciplinary procedures for noncompliance with safety rules, with 81% confirming the existence of such protocols. Moreover, the data suggests that managers take safety breaches seriously, as indicated by 70% of respondents affirming this sentiment. However, there are areas of concern highlighted in the responses. For instance, only 52% of employees feel that safety problems are addressed immediately, indicating potential delays or gaps in the safety management process. Additionally, a relatively low percentage of respondents (37%) report consistent availability of necessary equipment and materials for safe work practices, suggesting room for resource allocation and management improvement. These findings underscore the importance of maintaining and enhancing organisational safety measures while addressing any shortcomings identified through employee feedback.

4.8 Behavior based safety experience

The survey aims to evaluate the Harare City Council staff's experiences with behavior-based safety procedures. With relation to their use of these safety precautions, participators were requested to rank their accord with the following statements on a scale from "always" to "on big site only." The findings are summarized in Figure 4.4, which also offers insightful information about how staff members view and engage with behavior-based safety efforts within the company.

Fig 4.4 Behaviour-Based Safety Experience

The provided statement illustrates the frequency and implementation of safety practices within the workplace, mainly focusing on Behavior-based Safety Induction Training, method statement briefing, and employee familiarity with risk assessments. The data highlights varying degrees of adherence to these safety protocols. Notably, behaviour-based safety induction training shows moderate consistency, with 26% reporting that it always occurs, although a significant proportion (34%) indicate that it does not happen often. Similarly, the briefing on new method statements displays a mixed pattern, with 28% reporting it always happens, while 40% suggest it occurs rarely or never. On the other hand, familiarity with risk assessments appears to be relatively higher, with 45% claiming they are familiar with them for their job. However, a noteworthy percentage (19%) still indicates a lack of familiarity. The data underscores the importance of consistent safety training and communication of procedures to ensure a safe work environment, while also indicating areas for potential improvement in implementation and communication of safety protocols.

4.9 Safety and health perception

Brief Information: This survey aims to gather insights into employees' perceptions of safety, health issues, and hazards within their department or section at the Harare City Council. Participants were asked to provide feedback on various aspects of safety practices, including observation and feedback mechanisms, error prevention discussions, supervisor involvement, willingness to address unsafe practices, and satisfaction with the health and safety training program. The results in Figure 4.5 offer valuable insights into the effectiveness of current safety measures and opportunities for organisational improvement.

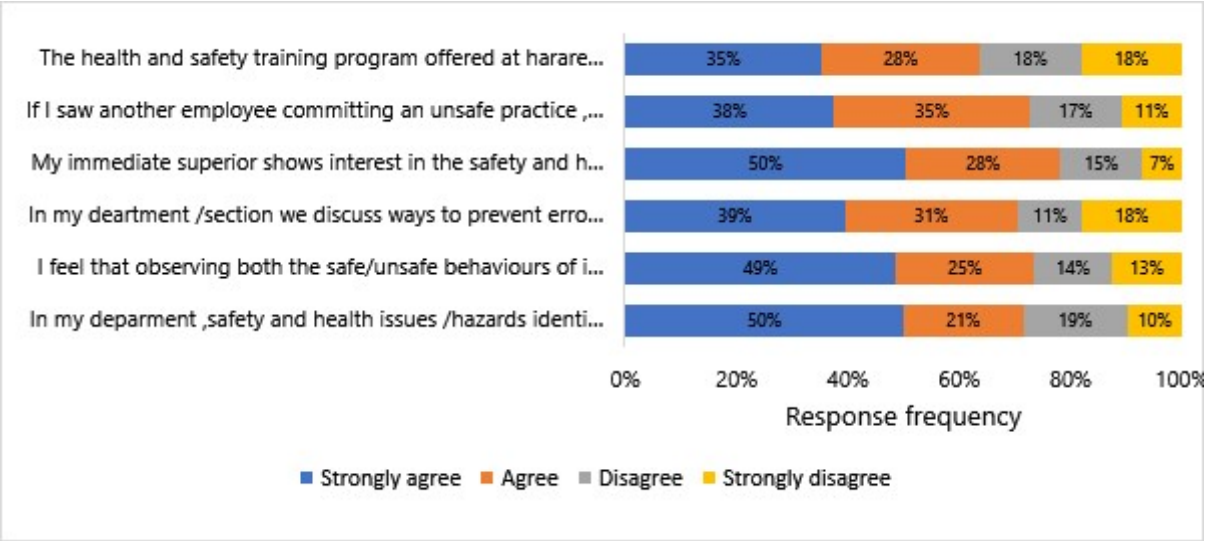

Figure 4.5 Safety and Health Perception

Figure 4.5 offers insights into employee perceptions regarding safety and health practices within their department at the Harare City Council. A notable majority (50%) strongly agree that safety and health hazards are identified in their department, indicating a proactive approach to risk management. Additionally, a significant portion (49%) express belief in the efficacy of observing and providing feedback on safe/unsafe behaviors to enhance safety levels, suggesting a recognition of the importance of behavioral interventions in promoting a safer work environment. However, while there is some indication of engagement in error prevention discussions within departments (39% agree), there's room for improvement, as a substantial portion (18%) disagree or strongly disagree. The data also reflects positively on the perceived interest of immediate superiors in employee safety and health, with 50% agreeing. Nevertheless, there are notable proportions

expressing uncertainty or disagreement, indicating potential gaps in leadership engagement. Moreover, while a considerable number of employees express willingness to address unsafe practices directly (38% would say something), there remains a significant portion who may not feel empowered to do so. Lastly, the health and safety training program receives mixed reviews, with only 35% feeling that it adequately meets their needs, suggesting potential areas for enhancement to better align with employee requirements and expectations. Overall, the data highlights both strengths and areas for improvement in the safety culture and practices within departments at the Harare City Council.

4.10 Factors influential on workers behaviour at Harare city council

Participants were surveyed regarding their opinions on the factors influencing positive behaviour towards safety within the Harare City Council. On a scale of 1 to 10, where 10 denoted a considerable influence, they were asked to rate each of the several elements that were presented to them. A thorough description of the survey findings is given in Table 4.6, which also shows how each component is thought to affect the council's ability to encourage safety behaviors.

Table 4.6: Factors influential on worker's behaviour at Harare City Council

Factor	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
age	12 %	16 %	8%	5%	13 %	15 %	5%	7%	7%	13 %
personal care and attention to safety	7%	13 %	9%	9%	11 %	5%	11 %	7%	12 %	17 %
length of time in the industry	18 %	20 %	11 %	7%	5%	7%	9%	11 %	7%	5%

competency at a given task	18 %	13 %	16 %	7%	7%	5%	7%	15 %	9%	3%
safety conscious workmates	13 %	19 %	17 %	9%	11 %	9%	9%	5%	4%	4%
good supervision	15 %	14 %	13 %	7%	7%	7%	9%	9%	7%	11 %
strong safety culture management commitment	16 %	10 %	15 %	17 %	4%	10 %	13 %	4%	5%	5%
active disciplinary procedure	11 %	14 %	13 %	15 %	8%	4%	5%	13 %	5%	12 %
presence of a safety officer	20 %	18 %	15 %	5%	5%	2%	9%	9%	7%	10 %
presence of a safety representative	12 %	10 %	20 %	2%	9%	7%	9%	11 %	2%	17 %

Table 4.6 presents a comprehensive overview of the factors influencing workers' behavior within the Harare City Council, as rated by the participants on a scale from 1 to 10. Each factor encompasses various aspects ranging from personal attributes to organizational structures. Age, a personal demographic factor, received moderate ratings across the scale, indicating a diverse range of perceptions regarding its influence on behavior. Personal care and attention to safety garnered mixed responses, with a notable proportion rating it highly, suggesting its significance in promoting safety consciousness among workers. Divergent views on the relationship between experience and safety behavior were highlighted by the scores given to task proficiency and length of service in the industry. A significant percentage of respondents positively viewed the influence

of safety-conscious coworkers and competent supervision, highlighting the importance of peer influence and managerial support in promoting safe practices. Additionally, factors such as strong safety culture management commitment and active disciplinary procedures received mixed ratings, indicating differing perceptions of their effectiveness in promoting safety. The presence of safety officers and representatives was rated relatively high, suggesting confidence in the role of dedicated safety personnel in ensuring workplace safety. Overall, the data from Table 4.6 underscores the multifaceted nature of factors influencing workers' behavior towards safety, reflecting the complex interplay between individual characteristics and organizational dynamics within the Harare City Council.

4.11 Employee perception of workplace safety

The study gauged employees' perceptions regarding workplace safety at the factory, looking at employees' attitudes to safety, risk-taking and safety culture. Participants were asked to indicate their level of agreement or disagreement with certain linked statements to personal responsibility for safety, the perceived risk of their job, the importance of safety rules, the effectiveness of Behavior-Based Safety (BBS) training, the likelihood of accidents, the necessity of safety rules for job performance, the impact of safety rules on job efficiency, and the importance of management commitment to safety. The results are shown in Table 4.7.

Table 4.7: Employee Perceptions of Workplace Safety

Item	Agree	Disagree
It is my responsibility to be safe at work.	66%	34%
Manufacturing labor is a an extremely dangerous occupation .	84%	16%

It is necessary to comply with safety rules.	81%	19%
BBS training have been a good idea	79%	21%
I have a very low probability of getting into an accident.	24%	76%
I can still perform my work safely, without all of these requirements.	27%	73%
Following safety regulations slows down the work.	12%	88%
Management must be dedicated to safety.	74%	26%

The findings presented in Table 4.6 reveal a varied yet generally positive outlook on workplace safety among the surveyed employees. Interestingly, a sizable majority (66%) admit that they are personally accountable for their own safety, suggesting that there is a sense of individual accountability in the workplace. Furthermore, a sizable percentage (84%) believe that working in a factory is a high-risk employment, which suggests that they are more aware of the risks associated with their workplace. This heightened awareness extends to the importance of safety rules, with an overwhelming majority (81%) recognizing their significance and the necessity of abiding by them.

The positive reception of Behavioral-Based Safety (BBS) training is evident, as nearly four-fifths (79%) view it as beneficial, underscoring its perceived effectiveness in promoting safe practices and behaviors. Even still, a reasonable appraisal of personal risk is still present because only 24% of respondents think that the likelihood of an accident is low, suggesting that there may be hazards at work.

Moreover, there is a prevailing attitude among the majority (73%) that safety rules are essential for performing their job safely, rejecting the notion that tasks can be completed just as safely without regulations. This sentiment aligns with the belief of only a small minority (12%) who feel that complying with safety rules hinders job efficiency, suggesting a generally positive attitude towards safety protocols.

Finally, the majority of respondents (74%) highlight the significance of management commitment to safety. Additionally, the majority (73%) reject the idea that tasks can be completed just as safely without regulations, citing safety rules as necessary for them To do their work in a safe manner. This opinion is compatible with the views held by a minuscule minority.
(12%) who believe that following safety regulations reduces the effectiveness of their jobs, indicating a generally positive attitude toward safety procedure

CHAPTER 5: DISCUSSION

Introduction

This chapter presents a discussion of the findings of a study that focused on the impact of behavior-based safety in combating workplace accidents, namely the City of Harare Council.

5.1 Safety and Health Perception

The survey found that employees felt the behavior-based safety program met their needs.As shown in Figure 4.5, a significant majority (50%) of respondents feel that safety and health hazards have been recognized in their departments, showing a proactive attitude to risk management.This has been supported with Frederick and Lessin (2000) and Blair 2003 research that showed that the bbs program had addressed workers' demands through rewards that are in The department (positive reinforcement), safety meetings have been effective in acknowledging the detection of a very significant hazard and offering methods. to eliminate those dangers, thus satisfying employees' wants..

5.2 Behavior Based Safety Experience

As illustrated in Figure 4.4, a behavior-based safety induction program is not carried out

consistent basis, and briefings on new method statements are rare.However, many employees are familiar with risk assessments.BBS training safety induction was ineffective in minimizing occupational injuries since it was conducted during the installation of a BBS program and was theoretical rather than practical (Geller, 2003).The findings of this study contradicted the findings

of Ismail and Hashim (2012), who stated That BBS training was done. in the oil and gas Industry overwhelmingly agreed that the benefits of this method increased safety performance and decreased the frequency of incidents., improved safety culture, and altered worker conduct. BBS training has permitted an increasing number of safe behaviors and contributed to the lowering of accidents(Kaila 2010).

5.3 Evaluation of how well BBS has reduced risky work behavior

As shown in fig 4.4, 45% of respondents agreed that bbs is helpful in decreasing hazards since Before beginning work, risk evaluations are carried out begins (Tuncle et al 2006).The influence of bulletin boards has lowered hazards by utilizing strategies such as safety lectures, Meetings within departments , communication in the workplace, employee participation, and management involvement (Anderson, 2009). BBS has advised employees to minimize risky behaviors or dangerous conduct because they will know of the implications. According to Guastello (2005), these behaviour-based safety programs have decreased workplace injuries by 59.6% in comparison to other measures such as near-miss reporting and ergonomics.

5.4 Evaluation of how well a bbs program works to prevent workplace accidents

This study found that the bbs program has an influence on preventing workplace accidents.The application of incentives, monitoring, and reinforcement has improved workplace safety performance by lowering risky behavior, resulting in lower injury rates (rhoton 2000, guestello 2005, Mcfee and Winn 2009). Properly implementing BBS programs will lead to a decrease of dangers, workplace injuries, and accidents., higher reporting of near-misses, and decrease accident costs, but more importantly, the levels of safe behavior will be better (Sacks (2006).

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CHAPTER 6: CONCLUSION AND RECOMMENDATION

Introduction

The chapter's observations and suggestions center on how BBS has helped Harare City Council reduce occupational injuries and accidents.

6.1 Conclusion

This research intends to investigate the effects of behavioral-based safety as a tool for reducing injuries, improving safety performance, and developing effective control methods to prevent harmful acts and behavior. Based on the results of surveys, interviews, and observation guides, BBS has demonstrated success in discouraging risky behavior, encouraging safe behavior, and fostering a safety culture inside the company. Employee exposure to BBS has been enlightening and reviving, as it has helped them realize that addressing dangerous or at-risk behaviors through BBS method is the first step towards preventing near misses at work. The data also imply that managerial commitment and unambiguous leadership are necessary for a BBS program to be successful.

6.2 Recomendations

Data gathered for the study showed how Harare City Council's implementation of behavior-based safety has helped to minimize workplace accidents and injuries. The researcher did, however, identify a few areas in need of improvement, which is why the following suggestions were offered. To ensure that all employees of the Harare City Council are aware of dangerous activities and behaviors, the corporation must arrange yearly BBS training and communication programs. It is

recommended that management staff distribute BBS reports for their departments to their particular teams in order to facilitate the discussion of identified at-risk behaviors during safety talk sessions. The study recognizes the importance of motivation in encouraging workers to adopt safe actions and behaviors. Because human conduct is brittle, it must be reined in, observed, and encouraged. Management may wish to utilize various forms of motivation, but the study shows that allowances can be used to achieve desired outcomes and foster a safety culture inside the company.

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APPENDIX 1: Questionnaire for Harare City Council

APPENDIX I: RESEARCH QUESTIONNAIRE
QUESTIONNAIRE ON "IMPACT OF BEHAVIOR BASED SAFETY TO COMBAT WRKPLACE ACCIDENTS.A CASE OF HARARE CITY COUNCIL.

My name is Mazvita Hodera. I am a student currently studying Safety Health and Environmental Management at Bindura University of Science Education. As part of my dissertation. I am conducting a research on impact of behavior based safety in combating workplace accidents with reference to Harare City Council. Please answer all questions as truthfully as you can. There is no right or wrong answers. The information you give will be used for academic purposes only and will be treated with due discretion. Please tick adjacent to answers you think are most appropriate.

Section A

- Male
- Female

1 Please tick the box indicating your age

- Younger than 21
- 21-30
- 31-40
- Older than 40

2.Please tick the box indicating the number of years you have worked at Harare City Council.

- Less than 5
- 5-10
- 10-15
- More than 15

3.Your nature of job involves

- Mostly desk job/office job
- Mostly site job/field work
- Both desk job/office job and site job/field work

Personal Safety Record

4. Have you been engaged in a work accident that resulted in

(a)3 days absence from work or more

- Yes
- No

(b) less than 3 days

- Yes
- No

SECTION B

1. Based on your experience working at Harare city council, please tick YES or NO as appropriate to the following statements

Statement	Yes	No
Disciplinary processes are aggressively implemented for violation with safety requirements.		
Although a disciplinary system exists for violation with safety requirements, it is not consistently enforced.		
Safety concerns are always addressed immediately.		

2. The following items best describes your experience towards behavior based safety at city of Harare City council please tick your response using this scale

1 always 2 regularly 3 not often 4 never 5 on big site only

Statement	1	2	3	4	5
Behavior Based Safety Induction Training is provided before starting on a new location.					
Each job requires a new method statement that is prepared and discussed beforehand.					
I am familiar with risk assessment for my job.					

3. Complete the following by encircling the appropriate number of your response after each question.

1 Strongly Agree 2 Agree 3 Neutral 4 Disagree 5 Strongly Disagree

a) In my department, identified safety and health risks or dangers are promptly addressed.

1 2 3 4 5

b) I believe that observing both safe and risky activities of individuals and providing comments can increase safety levels.

I believe that observing both safe and risky activities of individuals and providing comments can increase safety levels.

. 1 2 3 4 5

c) In my department/section, we discuss measures to prevent errors / blunders from occurring again.

. 1 2 3 4 5

d) My immediate supervisor prioritizes employee safety and health in my department/work area.

. 1 2 3 4 5

e) If I witnessed another employee engaging in risky behavior, I would confront him or her directly.

1 2 3 4 5

f)) The health and safety training program supplied by Harare City Council meets my demands.

.

1 2 3 4 5

SECTION C

Factors influential on worker's behavior at Harare city council

1. What, in your opinion, encourages excellent behavior (regarding safety) in Harare City Council? Please provide your rating from 1 to 10 on each of the statements below.

Age (very young or excessively old)……..

Personal Care and attention to safety.....

Length of time in the industry.....

Competency at a given task.....

Safety conscious workmates.....

Good Supervision.....

Strong Safety Culture & Management Commitment……..

Active Disciplinary Procedure.....

Presence of a Safety Officer.....

Presence of a Safety Representative.....

SECTION D

Employees' attitude to safety, risk taking and safety culture

1. For each of the following statement(s) please indicate if you agree or disagree

Statement	Agree	Disagree
I'm accountable for my own safety at work.		
Working in factories is a high-risk job.		
It is necessary to comply with safety rules.		
BBS training have been a good idea		
The chances of me having an accident are quite minimal.		
I can do my job safely without all these rules.		
Compliance with safety rules slows down the process.		

APPENDIX 2: Behavior based safety checklist for Harare City Council

Personal Protective Equipment

Head	Safe	At risk
Wearing proper head protection		
Head protection in good condition and worn properly		
Eyes face		
Wearing approved safety glasses for routine work		
Wearing face shield for product unloading ,grinding		
Wearing chemical splash goggles for chemical handling or work on liquid systems		
Ears		
Wearing proper hearing protection at high noise areas		

Hearing protection correct type (NRR) and worn properly		
Hands		
Wearing the correct type of glove for the associated tasks		
Gloves in good condition		
Feet		
Wearing safety shoes for routine work		
Shoes in good condition		
Clothing		
Wearing appropriate clothing for weather and working conditions		
Respirator		
Using proper respiratory equipment as required		

Material Handling

Physical lifting	Safe	At risk
Inspect the load for sharp objects or slippery substances prior to attempting the lift		
Test the loads weight to ensure that it is within your lifting capacity		
Use teamwork when lifting loads		
Get a firm footing prior to lifting load		
Back straight to maintain strength		
Centre body over feet		
Feet positioned shoulder apart		
Pull the load close to the body		
Bend knees and lift with legs not with the back		

Always walk forward when carrying a load		
ergonomics		
Proper body positioning used- neutral wrist ,straight back etc.		
Workstation adjusted to correct position		
Is job rotation required and being followed ?		
Avoid use of excessive force		
Mechanical lifting		
Use cylinder cart or appropriate device for moving heavy loads		
Secure all loads before transporting		
Use appropriate rating and length of strap or cable when lifting		
Use tag line when lifting a load with crane apparatus		

Transport loads as low as possible when using mechanical lifting devices		
Never leave a suspended load unattended		

Environment and work areas

	Safe	At risk
Housekeeping		
Walking surface		
Working surface		
Area is clean and devoid of impediments or slip, trip, fall dangers.		
Walkways, fire equipment, and emergency access routes are clear of obstructions.		
Contact with temperature		

Contact with whirling equipment.		
Tool slippage		
Confined space		
Electrical safety		
Harmful substances and environment		
Hazardous substances labeled ,used and stored properly		