

Addis Ababa University

College of Business and Economics

School of Commerce

**The effect of Occupational Health and Safety on Employee Satisfaction in
selected private health facilities in Addis Ababa**

By

Tamrat Petros

**A project work in partial fulfillment of the requirements for the Degree of
Master of Arts in Project Management**

Advisor: Dr. Dereje Abi

Addis Ababa, Ethiopia

June 2023

Addis Ababa University
College of Business and Economics
School of Commerce

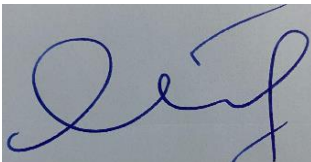
**The effect of Occupational Health and Safety on Employee Satisfaction in
selected private health facilities in Addis Ababa**

By

Tamrat Petros

**A project work in partial fulfillment of the requirements for the Degree of
Master of Arts in Project Management**

APPROVED BY BOARD OF EXAMINERS:

Name	Signature	Date
Dereje Abi (PhD) (Advisor)	_____	_____
Saleamlak Mola (PhD) (Internal Examiner)	_____	_____
Abera Legesse (PhD) (External Examiner)		

Statement of Declaration

I, the undersigned, declare that this project work entitled “**The effect of Occupational Health and Safety on Employee Satisfaction in selected private health facilities in Addis Ababa**” is my original work performed under the support and guidance of the research advisor Dereje Abi (Ph.D) and the entire material I used for the study have been duly acknowledged. This study has not been presented for degree in this university or other university so far.

Investigator: Tamrat Petros

Signature: _____

Date: _____

Statement of Endorsement

This project work, entitled “**The Effect of Occupational Health and Safety on Employee Satisfaction in Selected Private Health Facilities in Addis Ababa**” was carried out by Tamrat Petros, in partial fulfillment of the requirement for a Master of Arts in Project Management at Addis Ababa University, School of Commerce. He conducted his original thesis under my guidance and supervision. I certify that the study is his original work and suitable for submission for the award of MA in Project Management.

Research Advisor: Dereje Abi (Ph.D)

Signature: _____

Date: _____

Acknowledgment

I would like to thank my advisor Dr.Dereje Abi for his continuous, unreserved, and valuable advice from the conception to the completion of the study. I am exceedingly grateful to him for his responsible and constructive suggestions, valuable contributions, and criticisms for making this work what it is today. I also greatly respect my research respondents who answered my questionnaire and completed my research.

Table of contents

Acknowledgement	ii
List of abbreviations and acronyms:	vii
Abstract	viii
Chapter 1: Introduction	1
1.1 Background of the study	1
1.2 Background of the organizations under study	2
1.3 Statement of the problem	3
1.4 Research questions	4
1.5 Research Objectives	4
1.5.1 General objective	4
1.5.2 Specific objectives	4
1.6 Significance of the study	4
1.7 Scope of the study	5
1.8 Limitation of the study	5
1.9 Definition of key terms	6
1.10 Organization of the study	6
Chapter 2: Literature review	7
2.1 Occupational health and safety	7
2.1.1 Occupational hazards of healthcare workers	7
2.1.2 Factors that influence OHS in healthcare	8
2.1.3 Strategies for Improving OHS in Healthcare	10
2.1.4 Challenges of Occupational Health and Safety	11
2.2 Employee satisfaction	11
2.2.1 Factors affecting employee satisfaction	11
2.2.2 Implications of Employee Satisfaction	14
2.2.3 Employee Satisfaction level in Healthcare	14
2.2.4 Importance of Employee Satisfaction in Healthcare	15
2.3 Effect of OHS on employee satisfaction in the healthcare sector	16
2.3.1 Effect of OHS leadership and management on employee satisfaction	16
2.3.2 Effect of OHS ergonomics on employee satisfaction	18
2.3.3 The effect of OHS education and training on employee satisfaction	19

2.3.4 The effect of OHS policy and procedure on employee satisfaction	20
2.4 Conceptual framework	21
2.5 Hypothesis of the study	22
Chapter 3: Research methodology	23
3.1 Research approach.....	23
3.2 Research design.....	23
3.3 Population, Sampling technique and sample size	23
3.4 Types and source of data.....	24
3.5 Method of data collection.....	25
3.6 Methods of data analysis	25
3.7 Validity and Reliability analysis	25
3.8 Ethical consideration	26
Chapter 4: Results and Discussion.....	27
4.1 Descriptive analysis.....	27
4.1.1 Demographic characteristics of the study participants	27
4.1.2 OHS practices of the health facilities	29
4.1.3 Employee Satisfaction	34
4.2 Correlation analysis.....	36
4.3 Regression analysis	38
4.3.1 Assumption tests.....	38
4.3.2 Effect of OHS leadership and management on employee satisfaction.....	40
4.3.3 Effect of OHS ergonomics on employee satisfaction.....	41
4.3.4 Effect of OHS education and training on employee satisfaction.....	41
4.3.5 Effect of OHS policy and procedure on employee satisfaction.....	42
Chapter 5: Conclusion and Recommendation.....	44
5.1 Summary of major findings.....	44
5.2 Conclusions	45
5.3 Recommendations	46
References.....	47
Survey Questionnaire.....	52

List of tables

Table 1: Sample size distribution.....	24
Table 2: Summary of scales & Cronbach's alpha values	26
Table 3: Percentage and frequency distribution of demographic characteristics.....	28
Table 4: Assessment of OHS leadership and management	29
Table 5: Assessment of OHS ergonomics	31
Table 6: Assessment of OHS education and training	32
Table 7: Assessment of OHS policy and procedures.....	33
Table 8: Assessment of employee satisfaction	34
Table 9: Result of correlation analysis.....	36
Table 10: Multicollinearity test of the variables	39
Table 11: Result of regression analysis.....	39
Table 12: Effect of OHS leadership and management on employee satisfaction.....	40
Table 13: Effect of OHS ergonomics on employee satisfaction.....	41
Table 14: Effect of OHS education and training on employee satisfaction.....	41
Table 15: Effect of OHS policy and procedure on employee satisfaction.....	42
Table 16: Summary of hypothesis	43

List of figures

Figure 1: Conceptual frame work of the research.....	22
Figure 2: Normality test with histogram and P-P plot	38

List of abbreviations and acronyms:

AAU: Addis Ababa University

COVID-19: Corona virus disease - 19

HCW: Health care workers

HIV: Human immunodeficiency virus

ILO: International Labor Organization

OSHA: Occupational Safety and Health Association

OHS: Occupational Health and Safety

PPE: Personal Protective Equipment

SPSS: Software Package for Social Science

TB: Tuberculosis

Abstract

Implementing occupational health and safety program in health facilities has a great benefit for the organization by improving employee's satisfaction and ultimately patient care and outcome. The objective this study was to assess the effect of occupational health and safety on employee satisfaction in selected private health facilities in Addis Ababa, Ethiopia. The data was collected from Adera medical and surgical center, Girum hospital, and Landmark hospital. Total populations size of the study was 206 and 136 participants were selected as a sample size. Individual respondents from each stratum were selected randomly. Structured self-administered questionnaire was used for data collection. Among the selected 136 participants 82.3% of respondents completed and returned the questionnaire. Quantitative data was analyzed by using SPSS version 25 and a correlations and regression analysis were applied to determine the relationship between variables and how they are related. The descriptive result of this study revealed that both the satisfaction level of the employees and the occupational health and safety practices of the facilities, with the exception of ergonomics, is low. The regression result showed a positive and significant effect of OHS education & training, OHS leadership & management, and OHS policy & procedure on employee satisfaction. The effect of OHS ergonomics on employee satisfaction was not found to be statistically significant. The study concludes that private health facilities doesn't have occupational health and safety policy and procedure to expected level, they lack OHS leadership & management, have inadequate education & training on OHS activities. The study recommended that, health facilities should have occupational health and safety policy & procedure, establish strong OHS leadership & management practices, and prepare a periodic OHS training & education for their staffs.

Key words: Occupational health & safety, employee satisfaction, health facility

Chapter 1: Introduction

The research's nature and the overall strategy for addressing the identified research problem are introduced in this chapter. The background of the study, the problem statement, the research questions, the objective, the significance, the scope, and the limitations, as well as the way the study was organized, are all included.

1.1 Background of the study

Occupational Health and Safety (OHS) refers to the practices, procedures, and policies that organizations put in place to ensure the safety and health of employees through the identification and control of workplace hazards (Canadian Centre for Occupational Health and Safety, 2021).

The history of OHS can be traced back to the Industrial Revolution in the late 18th and early 19th centuries when industrialization led to the growth of large-scale manufacturing and the emergence of hazardous working conditions and the number of workplace accidents increased dramatically. The first legislation to protect workers' safety and health was the United Kingdom's Factories Act of 1833, which required employers to provide safe working conditions and machinery (Houdmont & Leka, 2010). Since then, many countries have enacted legislation to protect workers' safety and health, including the United States' Occupational Safety and Health Act of 1970 (OSHA). Since then, OHS has become a global concern, with many countries enacting laws and regulations to protect workers.

Employee satisfaction is an important aspect of organizational behavior and has been a subject of interest for both practitioners and researchers. It is defined as the degree to which employees feel fulfilled and content with their job and the work environment (Judge et al., 2001). It can also be defined as the extent to which employees are content with their work and the organization they work for (Babin, Boles, & Robin, 2000). High levels of employee satisfaction are linked to various positive outcomes for organizations, including increased productivity, reduced absenteeism, and lower turnover rates (Deshpande & Golhar, 1994).

Employee satisfaction is a critical factor in healthcare because of its impact on patient care. Healthcare workers who are satisfied with their jobs are more likely to provide high-quality patient care (Banaszak-Holl & Castle, 2013). The study also found that higher levels of employee

satisfaction were associated with lower mortality rates and fewer adverse events. Satisfied employees have a positive attitude, are more engaged in their work, and are less likely to make errors that could harm patients. High levels of employee satisfaction also contribute to reduced turnover rates, which can lead to increased efficiency, productivity, and cost savings. Moreover, studies have also found that employee satisfaction can lead to improved patient outcomes (Harter et al., 2002).

OHS is an essential aspect of healthcare systems worldwide, aiming to prevent workplace injuries, illnesses, and fatalities. Employee satisfaction is a crucial factor in healthcare organizations, affecting employee retention, productivity, and quality of patient care. Thus, it is important to examine the relationship between OHS and employee satisfaction in the healthcare sector.

1.2 Background of the organizations under study

Adera Medical and Surgical Center PLC was established in 2008 G.C by the leadership of Prof. Abate Bane, who is a consultant Internist and Gastroenterologist /Hepatologist, at the Addis Ababa University (AAU), College of health science, School of Medicine. It was established with a vision to provide standard quality service and training in the field of medicine specially to fill the gap of the great demand of Gastroenterology /Hepatology services in the country. The center is located around bole road behind flamingo restaurant on the way to exhibition center in front of Dan techno craft.

Girum Hospital is a private health facility that was founded in 2007 G.C. by American medical board certified physician Dr. Girum Berhane and his family with the primary goal of introducing the art and science of medicine to Ethiopia by establishing an effective hospital management system, a variety of medical specialties, and investing in the most up-to-date medical equipment that enables to provide advanced quality healthcare services in nation to hold the patient referral abroad and thereby create a medical tourism center in Ethiopia in the short run. The hospital is located in Addis ketema sub-city 500m South from Medhanealem High school towards Sefere-selam.

Landmark Hospital was founded in June of 2008 under the leadership of Prof. Kebede Oli, who is a consultant cardiologist and professor of Medicine at Addis Ababa University, with a strong desire

to provide high quality medical care in Ethiopia. The hospital visions to be recognized as quality hospital where motivated professionals strive to meet their clients' needs. It is located on the road from Mexico Square to Kera, near Genet Hotel and Temamaw Building.

1.3 Statement of the problem

The healthcare industry is a high-risk environment, and healthcare workers are at a greater risk of injury and illness on a daily basis due to the nature of their work. They are exposed to a range of occupational hazards, including biological, chemical, physical, and psychosocial hazards. According to a report by the United States Bureau of Labor Statistics, healthcare workers have a higher rate of workplace injuries and illnesses than workers in any other industry (BLS, 2020).

Many literatures has highlighted the importance of OHS practices, such as hazard identification, risk assessment, control measures, training and education, communication, and consultation, in ensuring a safe and healthy working environment for healthcare workers. For example Naidoo et al. (2021) showed that OHS has a positive and significant effect on job satisfaction of healthcare workers in South Africa. By providing a safe and healthy working environment, healthcare organizations can contribute to their employees' job satisfaction, well-being, and productivity, which, in turn, can lead to better organizational performance and reduced costs associated with absenteeism and employee turnover (Fakhar et al.,2020).

Even though several studies have explored the relationship between OHS and employee satisfaction in healthcare, the results have been inconsistent. Some studies have reported a positive association between OHS and employee satisfaction (Mohd et al., 2021), while others have found no significant relationship (Rosenthal et al., 2017). The majority of these studies are done in developed countries, and even the small studies done in developing countries are done in public health facilities (Dagne et al., 2020).

Therefore, conducting this research in a private health facility of a developing country is necessary to synthesize the available evidence and provide a comprehensive understanding of the impact of OHS on employee satisfaction in healthcare. Consequently, this study examines the effect of OHS on employee satisfaction in private health facilities of Ethiopia.

1.4 Research questions

The following key questions are addressed by this study in an effort to provide answers:

- What is the status of OHS practice and job satisfaction of employees at private health facilities?
- Does OHS leadership and management affect employee satisfaction?
- Does OHS policies and procedures affect employee satisfaction?
- Does OHS training and education has any effect on employee satisfaction?
- Does OHS related ergonomics affect employee satisfaction?
- To what extent does OHS affect employee satisfaction?

1.5 Research Objectives

1.5.1 General objective

The general objective of the study is to examine the effect of occupational health and safety on employee satisfaction.

1.5.2 Specific objectives

The study has the following specific objectives:

- To assess the status of OHS practice in selected private health facilities in Addis Ababa
- To test the effect of OHS leadership and management on employee satisfaction.
- To examine the effect of OHS policies and procedures on employee satisfaction.
- To determine the effect of OHS training and education on employee satisfaction.
- To scrutinize the effect of OHS related ergonomics on employee satisfaction.

1.6 Significance of the study

The study on the effect of occupational health and safety (OHS) on employee satisfaction in a private health facility in Addis Ababa is significant in several ways. Firstly, the findings of this study will contribute to the body of knowledge about the relationship between OHS and employee

satisfaction in private health facilities. This is particularly important given the limited research in this area in Ethiopia.

Secondly, the study will provide insights into the current state of OHS practices in the health facility and identify areas that require improvement. This will help managers and policymakers to develop and implement effective OHS policies and practices that can enhance employee satisfaction, which is crucial for retaining employees and ensuring the quality of healthcare services.

Thirdly, employee satisfaction is an important outcome variable for organizations as it has been linked to increased employee motivation, reduced turnover, improve organizational performance and patient outcomes (Halbesleben et al., 2004). Study on what affect this variable will be helpful.

Overall, this study is important as it sheds light on the impact of OHS on employee satisfaction in the health facilities in Addis Ababa, and can inform policy makers to devise projects that promote a safer, healthier, and more satisfying workplace environment for employees.

1.7 Scope of the study

Occupational health and safety is a broad field that applies to all industries. This study focuses on the effect of OHS on employee satisfaction with particular reference to private health facilities in Addis Ababa. In consideration of time and cost factors, even from the private health facilities in the capital city, due consideration is given to Adera medical and surgical center, Landmark hospital, and Girum hospital. In this study, the research involved only clinical staffs because such employees are directly involved in patient care and are exposed to a number of hazardous activities.

1.8 Limitation of the study

The study has certain limitations. The main limitation of the study is that it is conducted only on few selected private health facilities in Addis Ababa. Furthermore, the total population of the study considered only the clinical staffs because they are highly vulnerable for occupational accident but doesn't include other supportive staffs who can have similar risk like Janitors and others with less risks. Therefore, the generalizability of the findings of this study may be limited. Involving other health facilities in Ethiopia and non-clinical employees would make the conclusion sounder.

1.9 Definition of key terms

Occupational health and safety: is a multidisciplinary field concerned with the health, safety, and welfare of people engaged in work or employment. The goal of OHS is to prevent work-related injuries, illnesses, and deaths by identifying, assessing, and controlling workplace hazards and risks. This involves the development and implementation of policies, procedures, and programs aimed at ensuring that workers are safe and healthy while performing their job duties. OHS also encompasses the promotion of physical and mental wellbeing in the workplace, as well as the management of emergency situations and the provision of adequate first aid and medical care.

Employee satisfaction: is a term used to describe the level of contentment and fulfillment employees experience in their work environment. It refers to how happy and fulfilled employees are with their job, work conditions, and overall work experience. Employee satisfaction is often measured through surveys, interviews, and other means to gauge how employees feel about their job, the workplace culture, and the relationships they have with colleagues and superiors. A high level of employee satisfaction is generally seen as desirable because it can lead to higher productivity, lower turnover rates, and improved employee retention.

1.10 Organization of the study

There are five chapters in this research project. The background of the study, statement of the problem, objective of the study, significance of the study, scope of the research, limitation of the study, and definition of terms are all presented in the introduction section of the first chapter. The literature review, which is included in the second chapter, discusses the study's theoretical, empirical, and conceptual components. The third chapter, which is devoted to describing the research method, also includes sections on how surveys are developed and how data is collected. While the study's findings are reported in chapter four, chapter five discusses the summary, conclusion, and recommendations.

Chapter 2: Literature review

The definitions, practices, and other associated issues of occupational health and safety in the healthcare sector are reviewed in this chapter, along with related literature. The literature review tries to examine the literature that is currently available from various sources that is concerned with the concepts and theories of occupational safety and health practices and the empirical literature consisting of earlier studies similar to occupational health and safety and its impact on employee satisfaction, with a focus on healthcare.

2.1 Occupational health and safety

2.1.1 Occupational hazards of healthcare workers

According to the World Health Organization, healthcare workers are at a high risk of exposure to a range of occupational hazards, including infectious diseases, musculoskeletal disorders, and chemical and radiation exposure (WHO, 2021).

Biological hazards are among the most common risks for healthcare workers, as they are exposed to infectious diseases, including airborne and blood borne pathogens, which could lead to severe illnesses or even death (Bergman et al., 2020). One of the major occupational hazards for healthcare workers is exposure to infectious diseases, such as tuberculosis, HIV, and hepatitis B and C. In a study of healthcare workers in Canada, the risk of contracting tuberculosis was found to be significantly higher among healthcare workers than the general population (Bauer et al., 2013). Similarly, in a study of healthcare workers in Ethiopia, the prevalence of hepatitis B and C was found to be higher among healthcare workers than the general population (Abera et al., 2014). These findings highlight the need for effective infection control measures to be put in place in healthcare settings.

Chemical hazards such as hazardous drugs and cleaning agents are also common risks for healthcare workers, leading to respiratory, skin, and eye irritations, among other health issues (Naidoo et al., 2021).

In terms of physical health, musculoskeletal disorders are common occupational hazard for healthcare workers, particularly those who engage in manual patient handling. In a study of nurses

in Iran, the prevalence of low back pain was found to be high, with 68.8% of nurses reporting low back pain in the previous year (Choobineh et al., 2014).

Psychological stress is also a significant occupational hazard for healthcare workers, particularly those who work in high-stress environments such as emergency departments and intensive care units. In a study of emergency department nurses in Australia, the prevalence of burnout was found to be high, with 42% of nurses reporting high emotional exhaustion (Hegney et al., 2014). Similarly, in a study of intensive care unit (ICU) nurses in the United States, the prevalence of burnout was found to be 30.8% (Mealer et al., 2012). HCWs are at risk of developing psychosocial hazards such as job stress, burnout, and mental health problems due to high workloads, poor working conditions, and exposure to workplace violence, which could lead to psychological distress, mental health problems, absenteeism, reduced job satisfaction, and poor quality of life (Lee et al., 2021). These findings highlight the need for interventions to address psychological stress and burnout in healthcare workers.

Several measures have been taken to mitigate the risks associated with occupational hazards in healthcare. These include the use of personal protective equipment (PPE), vaccination programs, training and education programs, ergonomic interventions, and workplace policies and procedures to prevent workplace violence and other psychosocial hazards. PPE, including gloves, masks, and gowns, is essential for preventing the spread of infectious diseases and reducing exposure to hazardous drugs and chemicals. Vaccination programs, including influenza and COVID-19 vaccines, are also essential for protecting healthcare workers from infectious diseases (Naidoo et al., 2021). Training and education programs, including ergonomic training and violence prevention training, are essential for preventing musculoskeletal disorders and workplace violence. Finally, workplace policies and procedures, including zero-tolerance policies for workplace violence, are essential for promoting a safe and healthy workplace for healthcare workers (Lee et al., 2021).

2.1.2 Factors that influence OHS in healthcare

Workload and Staffing Levels: Workload and staffing levels are essential factors that affect OHS in healthcare. Inadequate staffing levels can lead to increased workload and fatigue, which can result in a higher risk of accidents and errors. A study by Li and colleagues (2019) found that healthcare workers who experienced high levels of workload and inadequate staffing were more

likely to report musculoskeletal disorders, stress, and job dissatisfaction. Similarly, a study by Park and colleagues (2018) found that inadequate staffing was associated with increased incidence of needle stick injuries among Korean nurses.

Training and Education: Training and education are critical factors that affect OHS in healthcare. Adequate training and education on safety procedures and practices can help prevent accidents and injuries. Researchers found that healthcare workers with more safety training had lower injury rates. They also found that workers who received regular safety training were more likely to report safety concerns and engage in safe work practices. A study by Buss and colleagues (2020) found that healthcare workers who received training on safe patient handling and mobility reported fewer musculoskeletal injuries. Similarly, a study by Alzahrani and colleagues (2019) found that healthcare workers who received training on infection prevention and control had better knowledge and compliance with OHS guidelines and a higher satisfaction level.

Organizational Culture: Organizational culture is another critical factor that affects OHS in healthcare. The culture of an organization can impact worker safety and health by influencing attitudes, behaviors, and practices related to safety. A positive safety culture can promote safety-conscious attitudes and behaviors, while a negative safety culture can lead to complacency and risk-taking behaviors. A study by Guldenmund (2010) found that a positive safety culture was associated with lower injury rates and better safety performance in healthcare organizations. The study also found that healthcare workers who perceived their organization to have a positive safety culture were less likely to report occupational injuries.

Personal Protective Equipment (PPE): Personal protective equipment (PPE) is an essential factor that affects OHS in healthcare. PPE, such as gloves, gowns, masks, and respirators, can help protect workers from exposure to infectious diseases, chemical exposure, and radiation. However, the effectiveness of PPE depends on the type of equipment used, how it is used, and whether it is appropriate for the hazards and risks present. A study by Han and colleagues (2020) found that the availability and use of appropriate PPE were essential for protecting healthcare workers from COVID-19.

In conclusion, this literature review has identified workload and staffing levels, training and education, organizational culture, and personal protective equipment as critical factors that affect

OHS in healthcare. These factors can impact worker safety and health by increasing the risk of accidents, injuries, and exposure to occupational hazards. Healthcare organizations should prioritize these factors to promote a safe and healthy work environment for their workers.

2.1.3 Strategies for Improving OHS in Healthcare:

To improve OHS in healthcare, several strategies have been proposed. These include:

1. *Training and Education:* Healthcare workers need adequate training and education to identify and manage OHS hazards effectively. Regular training programs can help to ensure that healthcare workers are aware of the risks and have the knowledge and skills necessary to manage those risks (Hollingsworth et al., 2020).

2. *Ergonomics:* Ergonomics involves designing the workplace to fit the worker, rather than the worker to fit the workplace. Implementing ergonomic measures, such as adjusting workstations and using ergonomic equipment, can reduce the risk of musculoskeletal injuries (Gurses et al., 2018).

3. *Leadership and Management:* Effective leadership and management are essential for ensuring that healthcare workers have a safe and healthy work environment. Leaders need to prioritize OHS and create a culture of safety in the workplace (Gao et al., 2019).

4. *Policies and Procedures:* The development and implementation of policies and procedures that address OHS hazards can help to improve OHS in healthcare. Regular audits can also help to ensure that policies and procedures are being followed (Hollingsworth et al., 2020).

In conclusion, OHS is critical in healthcare, and several factors affect it. Physical and psychosocial hazards, organizational factors, and the work environment are all factors that can affect OHS in healthcare. To improve OHS, training and education, ergonomics, leadership and management, and policies and procedures can be implemented. Implementing these strategies can help to ensure that healthcare workers have a safe and healthy work environment, which can ultimately lead to improved patient outcomes.

2.1.4 Challenges of Occupational Health and Safety:

Despite the progress made in OHS, workplace accidents and injuries remain a significant challenge in many industries worldwide. One of the major challenges is the lack of effective communication between employers and employees regarding OHS practices and procedures (Marsick & Watkins, 2015). This lack of communication can lead to misunderstandings and inadequate training, which increases the risk of accidents and injuries.

Another challenge in OHS is the cost of implementing safety measures. Many organizations are reluctant to invest in safety measures because of the associated costs (Lee & Roper, 2016). This reluctance can lead to inadequate safety measures, increasing the risk of accidents and injuries.

2.2 Employee satisfaction

Employee satisfaction is defined as the positive emotional state resulting from the perception that one's job fulfills or allows the fulfillment of one's important job values. Employee satisfaction is a critical factor in organizational success as it contributes to employee retention, motivation, and productivity. A satisfied employee is more likely to be committed to the organization, work harder, and be more productive.

2.2.1 Factors affecting employee satisfaction

Several factors contribute to employee satisfaction, including job autonomy, work-life balance, recognition and rewards, job security, work environment, career growth opportunities, communication, and organizational culture.

Job Autonomy: Job autonomy refers to the degree to which employees have control over their work. Autonomy allows employees to make decisions regarding their work, which leads to a sense of ownership and pride in their work. In addition, job autonomy have also been linked to higher levels of employee satisfaction. Autonomy has also been found to be positively related to job performance and organizational commitment (Hackman & Oldham, 1976).

Work-Life Balance: Work-life balance refers to the ability of employees to balance their work and personal life. Employees who feel that they have adequate time for personal activities, such as spending time with family, hobbies, or exercise, are more satisfied with their jobs. As employees

seek to balance their work and personal lives, organizations that offer flexible work arrangements such as telecommuting, job sharing, and flexible schedules tend to have higher levels of employee satisfaction (Parasuraman & Greenhaus, 2002).

Recognition and Rewards: Employees who receive recognition and rewards for their work are more satisfied than those who do not. Recognition and rewards can take many forms, including bonuses, promotions, public recognition, and personalized feedback. Supportive supervisors who provide recognition and feedback to their employees also contribute to higher levels of job satisfaction (Judge & Bono, 2004).

Job Security: Employees who feel secure in their jobs are more satisfied than those who do not. Job security refers to the assurance that employees will not lose their jobs due to economic factors or layoffs.

Work Environment: A positive work environment that is safe, comfortable, and free of harassment or discrimination contributes to employee satisfaction. A positive work environment that is supportive, safe, and respectful can increase employee satisfaction. A supportive work environment includes providing employees with the necessary resources to perform their jobs, such as equipment and training (Poghosyan et al., 2015).

Career Growth Opportunities: Employees who have opportunities for career growth and development within their organizations are more satisfied than those who do not. Career growth opportunities can include training programs, mentoring, and promotions. Research has shown that employees who have jobs that are challenging, provide opportunities for growth and development, and are meaningful to them tend to be more satisfied with their work (Hackman & Oldham, 1976).

Communication: Effective communication between employees and management contributes to employee satisfaction. Employees who feel that their opinions are heard and valued are more satisfied than those who do not. A study by Scott et al. (2013) found that employees who receive regular communication from their supervisors are more satisfied with their jobs. Communication was also found helpful in increasing employees' understanding of organizational goals and values, which can improve their level of commitment to the organization.

Leadership: Good leadership that is supportive, transparent, and communicates well with employees can increase employee satisfaction (Zhang et al., 2015). In contrast, poor leadership that is autocratic, micromanaging, or dismissive of employee concerns can decrease employee satisfaction (Poghosyan et al., 2015). A study by Judge et al. (2004) found that transformational leadership, which involves inspiring and motivating employees to achieve their potential, is positively associated with job satisfaction. In contrast, transactional leadership, which focuses on rewarding and punishing employees for their performance, has a negative effect on job satisfaction. Another study by Lee and Cummings (2008), also showed that transformational leadership has a positive impact on employee satisfaction. Transformational leadership, which involves empowering employees, providing them with support and resources, and fostering a positive work environment, has been found to be associated with higher levels of employee satisfaction (Chen et al., 2019). In contrast, transactional leadership, which involves using rewards and punishments to motivate employees, has been found to be associated with lower levels of employee satisfaction (Bartels et al., 2019).

Organizational Culture: Organizational culture refers to the shared values, beliefs, and norms within an organization. The organizational culture can significantly impact employee satisfaction. A positive culture that aligns with employees' values and beliefs contributes to job satisfaction. Studies have shown that organizations with a positive culture, where employees feel valued and supported, tend to have higher levels of employee satisfaction (Cameron & Quinn, 2011; Schein, 2010). A study by Kiyak and Kocakulah (2018) found that a positive organizational culture was associated with higher employee satisfaction and lower turnover rates.

Compensation and benefits: Compensation and benefits are also important factors that contribute to employee satisfaction. Research has shown that employees who feel they are fairly compensated for their work are more likely to be satisfied with their jobs. Additionally, access to benefits such as health insurance, retirement plans, and paid time off have also been found to contribute to higher levels of job satisfaction (Heneman & Schwab, 1985).

Supervisor support: The relationship between supervisor support and employee satisfaction has also been extensively researched. Supervisors who provide support and show interest in their employees are more likely to have satisfied employees. Additionally, supervisor support has been found to be positively related to employee engagement and job performance. However, it is

important to note that the impact of supervisor support on employee satisfaction can be influenced by individual differences in personality and work-related factors (Rupp & Spencer, 2006).

In conclusion, employee satisfaction is a complex and multifaceted construct that is influenced by a variety of factors, including job design, organizational culture, compensation and benefits, and work-life balance. Understanding these factors is important for organizations that seek to improve employee satisfaction and reap the benefits that come with a satisfied and engaged workforce.

2.2.2 Implications of Employee Satisfaction

Employee satisfaction has a significant impact on organizational performance. Satisfied employees are more likely to be productive, motivated, and committed to the organization. Studies have shown that OHS practices can have a positive impact on employee satisfaction in various industries. For instance, a study by Bakker et al. (2013) found that safety climate, which is a measure of OHS practices, was positively related to job satisfaction in the oil and gas industry. Similarly, a study by Mearns et al. (2003) found that safety climate was significantly related to job satisfaction in the manufacturing industry.

Higher levels of employee satisfaction can also lead to improved customer satisfaction and loyalty, as satisfied employees are more likely to provide excellent customer service (Schneider et al., 2002). This can have a positive impact on the organization's reputation and profitability.

Finally, employee satisfaction has been found to be positively related to organizational performance. Research has shown that satisfied employees are more likely to be productive and committed to their organization. Additionally, satisfied employees are less likely to leave their organization, which can reduce turnover costs and improve overall organizational performance (Arthur et al., 2006).

2.2.3 Employee Satisfaction level in Healthcare

A study conducted by Aiken et al. (2013) on the job satisfaction of nurses in 12 countries found that nurses were generally satisfied with their job, but the level of satisfaction varied by country. The study found that nurses in the United States and Canada were the most satisfied, while nurses in South Korea and Greece were the least satisfied. Another study by Spector et al. (2014) on the

job satisfaction of healthcare workers in 37 countries found that healthcare workers were generally satisfied with their job, but the level of satisfaction varied by occupation and country.

In Africa, a study by Nzinga et al. (2014) on the job satisfaction of healthcare workers in Kenya found that healthcare workers were generally dissatisfied with their job due to factors such as low pay, inadequate staffing, and poor working conditions. Similarly, a study by Uzochukwu et al. (2013) on the job satisfaction of healthcare workers in Nigeria found that healthcare workers were generally dissatisfied with their job due to factors such as low pay, inadequate staffing, and lack of training.

In Ethiopia, a study by Negussie et al. (2016) on the job satisfaction of healthcare workers in public hospitals found that healthcare workers were generally dissatisfied with their job due to factors such as low pay, inadequate staffing, and poor working conditions. Another study by Dagne et al. (2020) on the job satisfaction of healthcare workers in public hospitals in Addis Ababa found that healthcare workers were generally satisfied with their job, but the level of satisfaction varied by occupation and department. According to a study by Teshome et al. (2019), job satisfaction among healthcare workers in Ethiopia is low, with only 27.8% of the respondents reporting high job satisfaction.

2.2.4 Importance of Employee Satisfaction in Healthcare

Research has shown that there is a positive relationship between employee satisfaction and patient care. A study by Hewko et al. (2015) found that healthcare workers who were satisfied with their jobs were more likely to provide high-quality patient care and were less likely to make errors that could harm patients.

A study by Halbesleben and Buckley (2004) also found that employee satisfaction in healthcare was positively related to patient satisfaction. A satisfied employee is likely to provide better quality care and be more engaged with patients, leading to higher patient satisfaction. Higher patient satisfaction, in turn, leads to better clinical outcomes, such as shorter hospital stays, fewer complications, and lower mortality rates.

Moreover, studies have also found that employee satisfaction can lead to improved patient outcomes. A study by Banaszak-Holl and Castle (2013) found that higher levels of employee

satisfaction were associated with lower mortality rates and fewer adverse events. Another study by Harter et al. (2002) found that hospitals with higher levels of employee satisfaction had better patient satisfaction ratings and better clinical outcomes. Additionally, employee satisfaction has been shown to be positively correlated with job performance and productivity, which can ultimately improve the quality of care (Cheng et al., 2016).

Furthermore, employee satisfaction is associated with increased organizational commitment and reduced turnover intention (Kurniawan et al., 2020). A study by Al-Ahmadi (2019) found that employee satisfaction mediated the relationship between transformational leadership and organizational commitment among healthcare professionals in Saudi Arabia.

In conclusion, employee satisfaction is a critical factor in the delivery of high-quality healthcare services. Research has shown that there is a positive relationship between employee satisfaction and patient care, and that employee satisfaction can lead to improved patient outcomes. Healthcare organizations should prioritize employee satisfaction to ensure high-quality patient care and outcomes.

2.3 Effect of OHS on employee satisfaction in the healthcare sector

Occupational health and safety (OHS) has long been a concern in the healthcare industry, given the potential for workplace hazards and exposure to infectious diseases. While there is a significant body of research examining the relationship between OHS practices and employee satisfaction in healthcare, the findings have been mixed. Some studies suggest that improved OHS practices leads to greater employee satisfaction, while others find no significant relationship between the two variables.

2.3.1 Effect of OHS leadership and management on employee satisfaction

Occupational health and safety (OHS) leadership and management are crucial elements in ensuring the safety and wellbeing of healthcare workers. In recent years, there has been growing interest in the impact of OHS leadership and management on employee satisfaction in healthcare. This literature review aims to examine the existing literature on this topic, with a focus on the relationship between OHS leadership and management and employee satisfaction in healthcare.

A study by Hwang et al. (2018) in South Korea found that effective OHS leadership and management were positively associated with employee job satisfaction in healthcare settings. The study suggested that clear communication, employees' engagement, and support for safe working practices were important factors in promoting employee satisfaction and reducing the risk of workplace injuries.

Similarly, a study by Al-Aomar et al. (2019) examined the impact of OHS management on the job satisfaction of healthcare workers in Saudi Arabia. The study found that effective OHS management practices, such as hazard identification and risk assessment, were positively associated with job satisfaction among healthcare workers.

Another study by Fakhar et al. (2020) investigated the relationship between OHS leadership and the job satisfaction of nurses in Iran. The study found that effective OHS leadership practices, such as providing a positive work environment and establishing a support system for employees who sustain an injury, were positively associated with job satisfaction among nurses.

A Nigerian study by Adeyemo et al. (2021) found that OHS practices, such as hazard identification, risk assessment, and control measures, have a significant positive effect on employee satisfaction. The study also highlighted the importance of employee involvement in OHS activities, as it can lead to a better understanding of the hazards and risks associated with their work and foster a culture of safety in the workplace.

Finally, a study by Muli et al. (2019) investigated the relationship between OHS leadership and employee satisfaction in a Kenyan healthcare organization. The study found that effective OHS leadership practices, such as allocating adequate budget and providing necessary resources for safe working practices including PPE, were positively associated with employee satisfaction.

While the majority of studies on the relationship between OHS leadership and management and employee satisfaction in healthcare have found a positive association, there are a few studies that have reported mixed or inconclusive results. Here are few studies that reported no significant relationship between OHS leadership and management and employee satisfaction in healthcare:

A study by Mwangi et al. (2020) in Kenya found no significant relationship between OHS and employee satisfaction. The study found that the provision of OHS measures, such as personal protective equipment, did not significantly influence employee satisfaction in the healthcare sector.

A study by Leka et al. (2015) investigated the impact of OHS leadership and management systems on job satisfaction and well-being among healthcare workers in Europe. The study used data from a large-scale survey of healthcare workers across Europe and found that the presence of OHS management systems was not significantly associated with job satisfaction or well-being among healthcare workers. The authors suggested that OHS management systems may not be a sufficient condition for promoting employee satisfaction and well-being in healthcare settings.

Another study by Rosenthal et al. (2017) examined the relationship between OHS leadership and employee satisfaction in healthcare organizations. The study used data from a survey of healthcare workers in the United States and found that OHS leadership was not significantly associated with employee satisfaction. The authors suggested that other factors, such as workload and organizational culture, may be more important determinants of employee satisfaction than OHS leadership alone.

While these studies did not find a significant relationship between OHS leadership and management and employee satisfaction, it's worth noting that they used different measures and methodologies than the studies that found a positive association. Additionally, the studies focused on different aspects of OHS leadership and management than the studies that found a positive association. More research is needed to fully understand the complex relationship between OHS leadership and management and employee satisfaction in healthcare.

2.3.2 Effect of OHS ergonomics on employee satisfaction

Occupational health and safety (OHS) ergonomics is an important aspect of workplace safety and health that focuses on the design and arrangement of workstations, tools, and equipment to reduce physical strain and prevent musculoskeletal disorders. Effective OHS ergonomics can promote employee safety, health, and well-being, and may have an impact on employee satisfaction in the workplace. This section of the literature review aims to examine the existing literature on the relationship between OHS ergonomics and employee satisfaction, including studies with both positive and no significant correlation.

A study by Catalano et al. (2019) examined the impact of ergonomic interventions on employee productivity and satisfaction in a hospital system. The study found that ergonomic interventions, such as adjusting workstations and maintenance of equipment's, were associated with improved employee productivity and satisfaction.

Randomized control trial study by Choobineh et al. (2016) evaluated the effectiveness of ergonomic interventions in reducing musculoskeletal disorders among hospital employees. The study found that ergonomic interventions were effective in reducing musculoskeletal disorders and improving employee satisfaction.

A study by Kuamr et al. (2014) investigated the impact of ergonomic interventions on musculoskeletal disorders and fatigue among laboratory technicians working in clinical microbiology laboratories. The study found that ergonomic interventions, such as providing adequate workspace with suitable sitting chairs, were effective in reducing musculoskeletal disorders and fatigue, and improving employee satisfaction.

A study by Tullar et al. (2010) evaluated the effectiveness of occupational safety and health interventions, including ergonomic interventions, in reducing musculoskeletal symptoms among healthcare workers. The study found that while ergonomic interventions were effective in reducing musculoskeletal symptoms, there was no significant effect on employee satisfaction.

Overall, the existing literature suggests that effective OHS ergonomics can have a positive impact on employee satisfaction in the workplace. Ergonomic interventions such as adjusting workstations and providing training on safe working practices have been associated with increased employee satisfaction, reduced absenteeism, and improved employee well-being. However, some studies have reported no significant correlation between OHS ergonomics and employee satisfaction, indicating that more research is needed to fully understand the relationship between the two.

2.3.3 The effect of OHS education and training on employee satisfaction

Occupational health and safety (OHS) training and education is a critical aspect of promoting safe work practices and reducing the risk of workplace injuries and illnesses. In healthcare, where employees are often exposed to numerous hazards, OHS training and education is particularly important. Several studies have explored the relationship between OHS training, employee knowledge and compliance, and outcomes like employee satisfaction. However, the findings are mixed.

A study by Mohd et al. (2021) in Malaysian private hospital found that OHS practices, such as training and education, have a significant positive effect on employee satisfaction. The study

highlighted the importance of providing regular training and education to healthcare workers to ensure that they are equipped with the necessary knowledge and skills to perform their job safely and effectively.

A study by Choudhry et al. (2007) examined the impact of OHS education and training on safety performance and job satisfaction in a sample of healthcare workers in Canada. The authors found that OHS training was positively associated with job satisfaction among the study participants. The study also found that a positive safety climate and good safety communication were associated with higher levels of job satisfaction.

A study by Gershon et al. (2008) examined the impact of OHS training and education on job satisfaction and intention to remain employed among a sample of nurses in the United States. The authors found that OHS training and education was positively associated with job satisfaction and intention to remain employed among the study participants. The study also found that nurses who received OHS training and education reported feeling more confident and competent in their work.

Despite the positive findings, some studies have reported no correlation between OHS training and education and employee satisfaction in healthcare. For instance, a study by Niu et al. (2020) found that OHS training had no significant impact on job satisfaction among healthcare workers in China.

2.3.4 The effect of OHS policy and procedure on employee satisfaction

Occupational health and safety (OHS) policy and procedure is critical for promoting safe work practices and reducing the risk of workplace injuries and illnesses. In healthcare, where employees are often exposed to numerous hazards, OHS policy and procedure is particularly important. However, the impact of OHS policy and procedure on employee satisfaction is not well understood. This section of the literature review aims to explore the existing research on the effect of OHS policy and procedure on employee satisfaction in healthcare.

Several studies have shown a positive correlation between OHS policy and procedure and employee satisfaction in healthcare. For example, in a study by Al-Homayan et al. (2019), OHS policy and procedure practices like preparing a written OHS policy and clearly communicating the procedures with employees was found to be positively associated with job satisfaction among healthcare employees in Saudi Arabia.

A study by Clarke et al. (2016) found that the implementation of OHS policies and procedures was positively associated with employee satisfaction in Australian public hospitals. The study found that employees who perceived their workplace as having better OHS policies and procedures had higher levels of job satisfaction and were more likely to stay in their current job.

Similarly, in a study by Adebayo et al. (2021) examined the impact of OHS policy and procedure on employee job satisfaction among nurses in Nigeria. The authors found that OHS policy and procedure was positively associated with job satisfaction among the study participants. The study also found that organizational support for OHS practices was positively associated with job satisfaction.

Despite the positive findings, some studies have reported no correlation between OHS policy and procedure and employee satisfaction in healthcare. For instance, in a study by Teng et al. (2019) examined the effect of safety climate, including OHS policy and procedure, on job satisfaction among a sample of nurses in Taiwan. The authors found that safety climate was positively associated with job satisfaction among the study participants. However, OHS policy and procedure had no significant impact on job satisfaction.

Gaps in the Literature and contribution of this study

While several studies have investigated the effect of OHS practices on employee satisfaction in healthcare, only a few studies are done on the topic in our country. The few studies done in Ethiopia has focused on public hospitals, leaving a gap in the literature on the effect of OHS on employee satisfaction in other healthcare settings such as private health facilities.

2.4 Conceptual framework

Employee satisfaction is a function of various variables, among these is occupational safety and health practices in the organization. The highest level of physical, mental, and social well-being is maintained by a decent workplace, and it also prevents health problems among employees brought on by their working conditions and safeguards employees' jobs from risks brought on by factors that are harmful to their health. As a result, good health and safety practices in terms of occupational health and safety policy and procedure, leadership and management in OHS, OHS related ergonomics, and OHS training and education can reduce the number of accidents at work, as well as the level of sickness and absence of committed

employees, resulting in physically and mentally healthy and satisfied employees, which can improve patient care and patient outcome.

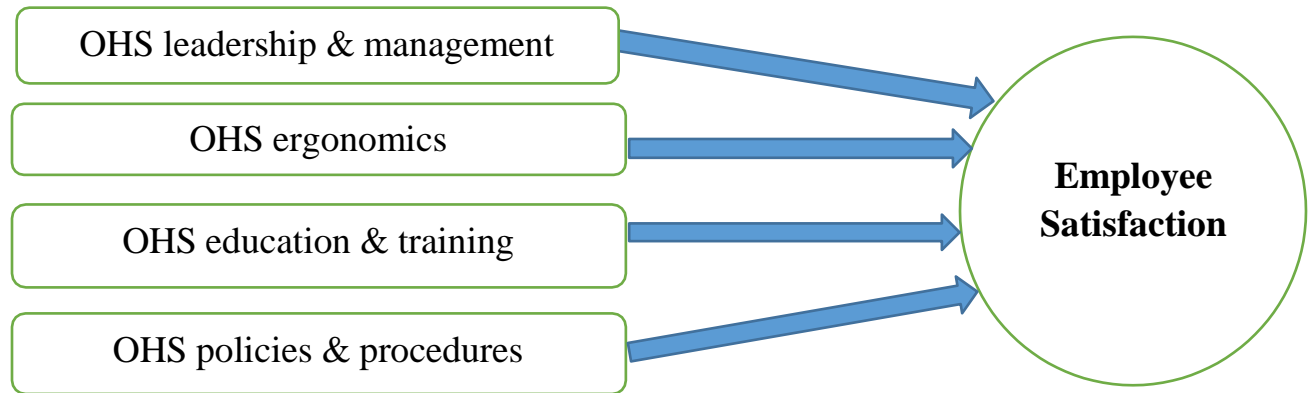


Figure 1: Conceptual frame work of the research

2.5 Hypothesis of the study

Based on the discussion and arguments narrated in the previous sections, this study proposes the following hypothesis:

H1: The effect of OHS leadership and management on employee satisfaction is significant and positive.

H2: The effect of OHS ergonomics on employee satisfaction is significant and positive.

H3: The effect of OHS education and training on employee satisfaction is significant and positive.

H4: The effect of OHS policy & procedures on employee satisfaction is significant and positive.

Chapter 3: Research methodology

This chapter explains the research methods employed in the study. It includes a description of the study area, research design, research approach, population and sample size, source of data, type of data, data collection instrument, data collection procedures, validity and reliability test, ethical consideration, and data analysis.

3.1 Research approach

This research adopted a quantitative approach, using a survey questionnaire to collect data from clinical staff employees of Adera medical and surgical center, Landmark hospital, and Girum hospital. The survey consisted of questions on OHS practices, employee satisfaction, and demographic information.

3.2 Research design

The study used both descriptive and explanatory designs. Descriptive design was used to describe the status of the variables in the case organizations. The explanatory design was set to test the effect of OHS on employee satisfaction. This approach is chosen because the study tried to establish the effect of OHS on employee satisfaction and therefore, the respondents gave information based on their experience. Regarding the time dimension, it was a cross sectional (a point in time) study.

3.3 Population, Sampling technique and sample size

The target population for this study are the clinical staffs of Adera medical and surgical center, Landmark hospital, and Girum hospital. The respondents are from different departments like those currently working in the Inpatient and outpatient departments, laboratory, pharmacy, radiology, endoscopy unit, dialysis unit, and operation theater staffs. These departments are targeted because they are directly involved in patient care and are more exposed to occupational hazards. According to the data obtained from the human resource department of the health facilities, Adera medical and surgical center has 59 clinical staffs, while Girum and Landmark hospitals has 72 and 75 clinical staffs respectively. For this study, the sample size is determined by the sample size determination formula which is developed by (Taro Yamane, 1967). The sample size is determined at 95% confidence level with acceptable sampling error of 5%.

$$n = \frac{N}{1 + (N * e^2)}$$

Where;

n = Sample size

N = Total population size

e = Acceptable level of error (that is 5%).

$$n = \frac{206}{1 + 333 (0.05)^2} = 136$$

One hundred thirty six employees were chosen as a sample size from a total population of 206 based on the preceding formula. As a result, the researcher used stratified sampling to ensure fair and adequate representation of sample from each institution. This technique generates three heterogeneous strata based on the number of staff in each health facility.

Table 1: Sample size distribution

No.	Health facility	Total population	Sample size	Remark
1	Adera medical & surgical center	59	39	(136/206)*59
2	Girum hospital	72	48	(136/206)*72
3	Landmark hospital	75	49	(136/206)*75

Respondents from each facility were selected using simple random sampling. Simple random sampling is a statistical method of selecting a sample from a population in which each member of the population has an equal chance of being selected. This sampling method is commonly used in research studies to obtain a representative subset of the population (Cochran et al., 1977).

3.4 Types and source of data

The study used primary data which was collected from the clinical staffs working at Adera medical and surgical center, Girum hospital, and Landmark hospital through structured questionnaire measuring the effect of occupational health and safety on employee satisfaction.

3.5 Method of data collection

The study used structured self-administered questionnaire consisting of closed ended questions. The questionnaire is adopted from Florence (2017) which consist of three sections. The first section contains demographic information. The second and the third part comprise OHS practices and employee satisfaction respectively and is based on a five point Likert scale of 5 levels ranging from 1 (strongly disagree) to 5 (strongly agree).

3.6 Methods of data analysis

All collected questionnaires were thoroughly checked and classified based on data completeness. As a result, those with incomplete data were omitted. Those who had complete data were coded, and their information was placed into the statistical program for social sciences (SPSS) version 25 for analysis. Quantitative data from questionnaires was analyzed using descriptive statistics such as frequencies, average mean, percentage, and standard deviation, while inferential statistical tools such as correlation and regression were used to determine and explain associations between predictor variable and outcome of interest.

3.7 Validity and Reliability analysis

The degree to which the instrument employed in this study measures what it is supposed to measure is defined by validity. All attempts were made to make the data collecting instruments clearly understandable by the respondents so that the necessary information could be captured, hence boosting the credibility of the final conclusions. The research instruments have previously been used by another researcher for a comparable study and were confirmed to be a valid instrument by the researcher.

The degree to which the instrument employed in this investigation is the same at different measurement times is referred to as reliability. The most frequent measure of internal consistency employed by social science researchers is a statistic known as Cronbach's alpha, which is used to determine the amount of reliability. Lee Cronbach invented it in 1951 to provide a measure of a test's or scales internal consistency; it is expressed as a number between 0 and 1. Internal consistency specifies the amount to which all of the items in a test measure the same notion or construct, and is thus related to the test's inter-relatedness. The reliability coefficients have values ranging from 0 to 1.0. In general, a standardized test's reliability is regarded to be very good if it

is greater than 0.70; if it is less than 0.50, the test is not considered to be dependable. Cronbach's coefficient alpha was employed in this study to assess instrument reliability. The following table illustrates the variables' scale and Cronbach's Alpha values:

Table 2: Summary of scales & Cronbach's alpha values

Variable	Cronbach's Alpha	Number of Items
OHS leadership & management	0.75	5
OHS ergonomics	0.87	6
OHS training & education	0.74	5
OHS policy & procedure	0.78	4
Employee satisfaction	0.79	8

3.8 Ethical consideration

In order to keep the study environment comfortable, the goal of the study was clearly conveyed to the interested bodies, including the study participants. According to the research ethical procedure, all participants were informed of their rights. The participants were informed that their participation in this study was voluntary and anonymous. To maintain confidentiality, the data collection and processing were done anonymously. Furthermore, the data was examined without the use of identities. The findings and results from this study will not be used for another purpose. During answering the questionnaires, respondents were free to respond their own opinion from their experience.

Chapter 4: Results and Discussion

The study's findings are presented in this chapter. The study sought to ascertain the impact of occupational health and safety on employee satisfaction in a sample of private health institutions in Addis Ababa. The study's findings are organized under the following headings: Means and standard deviation were used to assess the demographics of the respondents as well as the descriptive analysis of the questions. Furthermore, Pearson correlation coefficient was utilized to examine study objectives, and regression was performed to test the feasibility and internal consistency of the measurements. Employees of three selected private health facilities in Addis Ababa were polled using questionnaires. Out of the 136 questionnaires distributed to the respondents, 121 questionnaires were retrieved. From the retrieved questionnaires, 112 of them were completed, which represented 82.3% of the total sample of the study.

4.1 Descriptive analysis

4.1.1 Demographic characteristics of the study participants

Based on the findings, the majority (52.7%) of the respondents are males while 47.3% are females. According to age analysis, 56.3% of respondents are between the ages of 20 and 29, 24.1% are between the ages of 30 and 39, 9.8% are between the ages of 40 and 49, 6.3% are over 50, and 3.5% are under the age of 20.

In regarding to profession, 58 % of respondents are nurses, 16 % are laboratory professionals, 13.4% are medical doctors, 8.9% are pharmacists and 3.5% are radiographers. 38.4% of respondents said they had worked in the healthcare industry for two to five years, 23.2% had worked there for six to ten years, another 23.2% had worked there for more than ten years, and 15.2% had worked there for less than two years. Thus, it can be inferred that the majority of the respondents to this study were male, between the ages of 20 and 29, nurses, and had two to five years of experience in the field.

Table 3: Percentage and frequency distribution of demographic characteristics

Character	Frequency (Percent)
Gender	
Male	59 (52.7%)
Female	53 (47.3%)
Age range	
Less than 20 years	4 (3.5%)
20 - 29 years	63 (56.3%)
30 - 39 years	27 (24.1%)
40 - 49 years	11 (9.8%)
50 years and above	7 (6.3%)
Profession	
Medical doctor	15 (13.4%)
Nurse	65 (58.0%)
Laboratory professional	18 (16.0%)
Pharmacist	10 (8.9%)
Radiographer	4 (3.5%)
Years of experience	
Less than 2 years	17 (15.2%)
2 -5 years	43 (38.4%)
6 - 10 years	26 (23.2%)
More than 10 years	26 (23.2%)

Source: Survey finding (2023)

4.1.2 OHS practices of the health facilities

Those activities considered as safety practices are, issues like; availability and know how on policy and procedures of OHS, giving training and education to workers on OHS, management commitment and employees involvement in OHS related activities, and OHS ergonomics. In order to measure the occupational health and safety practices of the facilities and its effect on employee satisfaction, the research used a detailed descriptive analysis with a mean (M) and standard deviation (SD). The mean displays the degree to which respondents agree and disagree with each claim made in the questionnaire. Additionally, lower means show greater respondents' discontent with the presented statement, while higher means show greater respondents' agreement with the stated opinion.

OHS leadership and management

Table 4: Assessment of OHS leadership and management

Item	N	Mean	SD
1. The facility has an assigned OHS or incident officer who is always available when needed	112	2.22	0.81
2. The management allocates appropriate resources to occupational health and safety activities	112	2.08	0.78
3. There is a support system for employees who sustain an injury during working in the facility	112	2.15	0.80
4. The management engages workers in occupational health and safety discussions	112	2.05	0.62
5. There is a regular risk assessment to ascertain hazards in the organization.	112	1.90	0.69
OHS leadership and management	112	2.08	0.44

Source: Survey finding (2023)

The above table describes the results on respondents' opinion for statements under the occupational health and safety leadership and management practices of the health facilities. Under OHS leadership and management, there are five items to measure the management's commitment and the leadership practices in regarding to occupational health and safety, and its influence on the

satisfaction of employees. Based on the survey findings, among the whole respondents 44.6 % of respondents disagreed and 18.8% of the respondents strongly disagreed that the management of the facility has assigned OHS or incident officer who is always available when needed while 2.7 % agreed on the statement and 33 % of respondents were neutral. In regarding to the survey questionnaire of management allocates appropriate resources to occupational health and safety activities 51.8% of respondents disagreed while 22.3 % of respondents strongly disagreed on the statement and the remaining 21.4% of respondents were neutral. With regard to the availability of support system for employees who sustain an injury during working in the facility, 52.7% respondents disagreed on the statement and 25 % of respondents were neutral on the statement. It indicate that facility managers are lenient towards such kind of support for the employees. The role of management and involvement of all employees are very important in order to cultivate the positive beliefs, norms, practices and attitudes are the important keys that play in safety and health cultures. The management engages workers in occupational health and safety discussions is another statement to measure management and leadership towards OHS in the survey questionnaire, hence 60.7 % of respondents agreed that management doesn't considers involve the employees in such discussions, and 22.3 % of respondents were neutral on the statement. According to Gardner et al., (1999), the promotion of OSH cannot be achieved without the employee's full co-operation and commitment. In the last question employees were requested to rate the presence of regular risk assessment to ascertain hazards in the organization. 50.9 % of respondents disagreed on the statement while 29.5% of respondents strongly disagreed and the remaining 19.6% of respondents were neutral on the statement. Overall, as the data from the respondents and the aggregate mean (2.08) indicated that the facilities occupational health and safety leadership and management practices are under the standards that causes different compliances and dissatisfaction of employees on their workplaces.

OHS Ergonomics

Table 5: Assessment of OHS ergonomics

Item	N	Mean	SD
1. The office I work in has enough space to perform tasks	112	3.71	0.47
2. Ventilation of the office I work in is adequate enough to let in fresh air	112	3.35	0.68
3. The equipment's and furniture's are maintained in good condition	112	3.83	0.46
4. Broken infrastructures are repaired promptly	112	3.35	0.65
5. The chair I use is suitable and can be adjusted for individual needs	112	3.34	0.66
6. My office is cleaned regularly and is free of slip hazard	112	3.39	0.66
OHS Ergonomics	112	3.49	0.47

Source: Survey finding (2023)

The above table describes the results on respondents' opinion for statements under the occupational health and safety related ergonomic practices of the health facilities. There are six items to measure the OHS related ergonomic practices, and its influence on the satisfaction of employees. Based on the survey findings, the majority (71.4%) of respondents agreed that the office they work in has enough space to perform tasks while 27.7 % were neutral. In regarding to the survey question on adequate ventilation of the office, 46.4% of respondents agreed that the office they work in has adequate ventilation, while 42 % of respondents were neutral on the statement and the remaining 11.6% of respondents disagreed. With regard to equipment's and furniture's maintenance in good condition, 75.9% respondents agreed that equipment's and furniture's are maintained in a good condition and 20.5 % of respondents were neutral on the statement. On the question that assess the prompt repair of broken infrastructure, 44.5% were neutral and 44.6% agreed that broken infrastructures are repaired fast. In the last question employees were requested whether the office they work in is regularly cleaned and is free of slip hazard. 49.1 % of respondents agreed on the statement while 41.1% of respondents were neutral and the remaining 9.8% of respondents disagreed with the statement. Generally, the data from the

respondents and the aggregate mean (3.49) indicated, the facilities occupational health and safety related ergonomic practices are acceptable with a room for improvement.

OHS Education and Training

Table 6: Assessment of OHS education and training

Item	N	Mean	SD
1. I have received a proper training on the use of personal protective equipment	112	1.95	0.64
2. I can identify potential hazards in my workplace and take appropriate steps to mitigate the risk	112	2.01	0.69
3. I can use equipment's like fire extinguisher used in emergency situations	112	2.01	0.69
4. I feel that I have adequate skill to respond to emergencies in the facility	112	2.22	0.84
5. I know about the hazard, incident, or near misses reporting system of the facility	112	1.85	0.64
OHS Education and Training	112	2.00	0.49

Source: Survey finding (2023)

Education and training is very important for employees working in the facilities to improve their knowledge about OHS and protect themselves from occupational hazards. Accordingly the research included questions about OHS related education and training to employees in the facilities in order to understand and obtain inputs regarding its influence on their satisfaction. There are five statements included on the survey questionnaire to measure the subject matter. The study findings on employees are properly trained on the use of PPE showed that most (58.9%) of the respondents disagreed to the statement. This gives an insight for management of the facilities to provide occupational safety and healthy training for their staffs. In regarding to their ability to identify potential hazards in the workplace and take appropriate steps to mitigate the risk, 60.7 % of respondents disagreed and 20.5% strongly disagreed. Among the whole respondents 62 % of respondents disagreed with a statement that talks about their ability to use fire extinguisher in case of emergency situations. I feel that I have adequate skill to respond to

emergencies in the facility was the other statement forwarded to the respondents and 45.5% disagreed and 18.8% strongly disagreed. The last question was about the employee’s awareness about hazard, incident, or near misses reporting system of the facility and 58% disagreed with the statement and 29.5% strongly disagreed while 10.7% neither agreed nor disagreed. All of these factors were computed into one composite score to measure the general occupational health and safety education and training practices in the facilities. The study result showed that the practices of occupational health and safety training in the selected private health facilities is poor with an aggregate mean of 2.00.

OHS Policy and Procedures

Table 7: Assessment of OHS policy and procedures

Item	N	Mean	SD
1. The facility has a written policy on occupational health and safety which is available to the employees	112	2.02	0.68
2. The facility has procedure for reporting injury, incident, near misses or hazards	112	2.11	0.80
3. Safety procedures are clearly communicated and posted in my workplace	112	2.01	0.69
4. Regular safety inspection and audit is conducted in the facility	112	1.85	0.67
OHS Policy and Procedures	112	1.99	0.51

Source: Survey finding (2023)

Under OHS policy and procedures there are four statements to measure occupational health and safety policy and procedures in the health facilities to ascertain its influence on employee’s satisfaction. According to the study findings 56.3% of respondents disagreed and 21.4% strongly disagree that the facility has a written policy on occupational health and safety which is available to the employees. In regarding to the presence of procedure for reporting injury, incident, near misses or hazard, 50 % of respondents disagreed and 22.3% strongly disagreed. Safety procedures are clearly communicated and posted in the workplace is also another measurement of OHS related procedure in the facilities, and 60.7% of respondents disagreed on

the statement and another 20.5% strongly disagreed. The last question on this section was the presence of regular safety inspection and audit is in the facility, for which 58% of the respondents disagreed and 29.5% strongly disagreed. This study demonstrated that most of the employees do not agree that the facilities they work in has a good OHS policy & procedure with a mean of 1.99 and standard deviation of 0.51.

4.1.3 Employee Satisfaction

Table 8: Assessment of employee satisfaction

Item	N	Mean	SD
1. My employer values my contribution to the workplace	112	2.22	0.82
2. I am fairly compensated for my work	112	2.13	0.67
3. My employer provides me with opportunities for career and professional development	112	1.83	0.63
4. I feel satisfied with the work life balance provided by my employer	112	2.01	0.69
5. I am satisfied with my job in general	112	1.92	0.76
6. My employer provides me with the necessary resources to perform my job effectively	112	4.00	0.52
7. I feel that my workload is manageable	112	2.10	0.80
8. I am satisfied with the communication between management and employees	112	2.06	0.83
Employee Satisfaction	112	2.28	0.46

Source: Survey finding (2023)

Under employee satisfaction, eight statements were given to the respondents in order to measure the level of their satisfaction from different perspectives. Based on the study findings, 45.5% of the respondents disagreed with the statement that their employer values their contribution while another 18.8% strongly disagreed. Only 3.6% of the respondents agreed with the above statement. In regarding to fair compensation to their work, 75.9% of the respondents don't feel they are fairly compensated and only 2.7% feel they are fairly compensated. In regarding to the employer

providing opportunities for career and professional development, 87.5% of employee's don't feel that their employer provides them with opportunities for career and professional development. Majority (81.3%) of respondents are not satisfied with the work life balance provided by their employer. My employer provides me with the necessary resources to perform my job effectively was another measurement of the employees satisfaction for which 86.6 % of respondents agreed while the remaining 13.4 % of respondents were neutral. Only 5.4% of the respondents feel that their workload is manageable while 73.2% feel the opposite. The other statement in the questionnaire was about the communication between management and the employees, for which 79.5% of the respondents answered that they are not satisfied with the communication and 7.1% reported that they are satisfied. The last question on the survey was to assess the general satisfaction level of employees with their job. Majority (80.4%) of the respondents reported that they are not satisfied with their job and only 2.7% of the respondents were satisfied with their job. Based on this study, employee satisfaction has been assessed through different measures and the study findings showed that the employees don't feel satisfied with their job with a mean of 2.28 and standard deviation of 0.46. When we compare this finding to other studies done in our country, the result is contrary to a study done by Dagne et al. (2020) on the job satisfaction of healthcare workers in public hospitals in Addis Ababa which found that healthcare workers were generally satisfied with their job, and similar to a study by Teshome et al. (2019), which showed job satisfaction among healthcare workers in Ethiopia to be low, with only 27.8% of the respondents reporting high job satisfaction.

4.2 Correlation analysis

Table 9: Result of correlation analysis

Variables		OHS Leadership & Management	OHS Ergonomics	OHS Education & Training	OHS Policy & Procedure	Employee Satisfaction
OHS leadership & management	Pearson Correlation	1	.232	.704	.557	.747
	Sig. (2-tailed)		.064	.000	.000	.000
	N	112	112	112	112	112
OHS Ergonomics	Pearson Correlation	.232	1	.215	.215	.208
	Sig. (2-tailed)	.064		.063	.063	.068
	N	112	112	112	112	112
OHS Education & Training	Pearson Correlation	.704	.215	1	.819	.918
	Sig. (2-tailed)	.000	.063		.000	.000
	N	112	112	112	112	112
OHS Policy & Procedure	Pearson Correlation	.557	.215	.819	1	.887
	Sig. (2-tailed)	.000	.063	.000		.000
	N	112	112	112	112	112
Employee Satisfaction	Pearson Correlation	.747	.208	.887	.887	1
	Sig. (2-tailed)	.000	.068	.000	.000	
	N	112	112	112	112	112

Source: Survey finding (2023)

The degree of relationship between two or more variables is shown via correlation analysis. The link between the dependent variable (employee satisfaction) and the variables that are independent (OHS leadership and management, ergonomics, education and training, and policy and procedure) was described in the preceding table. The findings revealed that there is positive relationship which is statistically significant between; OHS leadership & management and employee satisfaction, OHS education & training and employee satisfaction, and OHS Policy & procedure and employee satisfaction. The relationship between ergonomics and employee satisfaction is not statistically significant.

The study findings were statistically significant between the dependent variable, employee satisfaction, and the independent variables with the exception of OHS ergonomics. This means

that in regard to leadership & management of OHS programs in the facilities, the top management and supervisors should support the OHS programs and be committed in the implementation in order to minimize occupational accident and injuries and also motivate employees to obey occupational health and safety policy and also encourage employees to participate in the occupational health and safety program. In regarding to OHS training & education, employees should get relevant occupational health and safety knowledge, skills and abilities at the work place in order to protect themselves and reduce occupational accidents and hazards in the workplace. In the aspect of OHS policy & procedure in the facilities, each facility should develop and formulate occupational health and safety policy, rules and regulations, practices and procedures that will guide employees to perform their duties thus minimize occupational accident and injuries and also to maximize employees satisfaction.

4.3 Regression analysis

The cause and effect link between OHS practices and employee satisfaction is explored in this study using a multiple regression model. Both the existence of a significant association and the direction of the relationship between these variables are investigated in the regression analysis.

4.3.1 Assumption tests

Assumption tests, are statistical procedures used to check whether the assumptions underlying a particular statistical analysis or model are met or violated. These tests are typically performed prior to conducting the analysis or model to ensure that the results obtained from the analysis are valid and reliable. Normality tests, for example, are used to check whether the data being analyzed follow a normal distribution, which is a common assumption in many statistical analyses (Stevens, J. P., 2009). Visual inspection is employed here using histogram and normal probability plots. Figure 2 suggests that the residual is normally distributed.

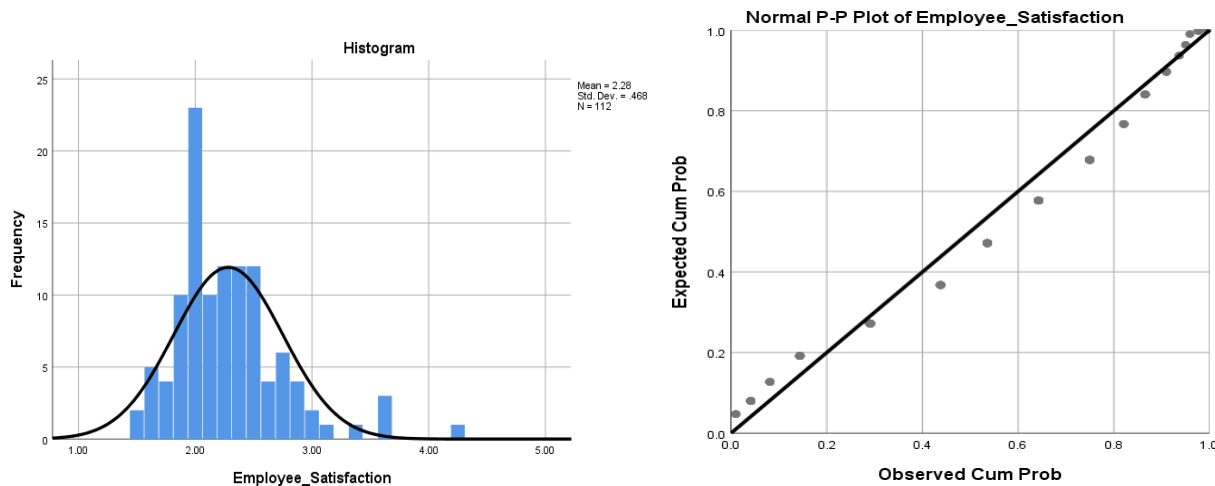


Figure 2: Normality test with histogram and P-P plot

Multicollinearity is a statistical phenomenon that happens when there is a strong correlation between two or more predictor variables in a regression model. This can cause problems in the analysis, such as making it difficult to estimate the effect of each predictor variable separately, and increasing the standard errors of the estimated coefficients. A measure of multicollinearity in a regression model is called the Variance Inflation Factor (VIF). Multicollinearity is typically characterized by a VIF more than 10 or a tolerance level below 0.2 (Kutner et al., 2005). The

collinearity statistics, which are made up of tolerance thresholds and variance inflation factors (VIF), are displayed in the following table.

Table 10: Multicollinearity test of the variables

	Collinearity statistics	
	Tolerance	VIF
OHS leadership & Management	0.49	2.01
OHS Ergonomics	0.93	1.06
OHS Education & Training	0.34	4.15
OHS Policy & Procedure	0.32	3.05

The VIF values are all below 10 and the tolerance statistics are all quite above 0.2, according to the collinearity statistics in the current model. It is safe to assume that the current data do not contain any collinearity.

Table 11: Result of regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	R	R Square	Adjusted R Square
	B	Std. Error	Beta					
Constant	0.322	0.102		3.153	0.002	0.66	0.62	0.61
OHS Leadership & Management	0.229	0.040	0.219	5.725	0.000			
OHS Ergonomics	0.024	0.028	0.025	0.880	0.381			
OHS Education & Training	0.396	0.052	0.421	7.676	0.000			
OHS Policy & Procedure	0.389	0.043	0.425	9.028	0.000			

Source: Survey finding (2023)

Regression analysis was used to assess the statistical significance between the dependent variable (employee satisfaction) and the independent variables (OHS leadership & management, ergonomics, education & training, and policy & procedure) in the facilities. As

a result, the regression analysis in the above table at a 5% level of significance described how much the chosen constant variable contributed. As a result, 61% of the variation in employee satisfaction at healthcare institutions may be attributed to occupational health and safety. Such a disparity suggests that the independent variable is a highly significant predictor of employee satisfaction, while 9% suggests that there may be additional factors influencing employee satisfaction that were not considered in this study.

4.3.2 Effect of OHS leadership and management on employee satisfaction

Table 12: Effect of OHS leadership and management on employee satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OHS Leadership & Management	0.229	0.040	0.219	5.725	0.000

Source: Survey finding (2023)

The above table shows the regression analysis result on the effect of OHS leadership and management on employee satisfaction. As indicated in the table, the effect of OHS leadership and management on employee satisfaction is found to be significant ($P < 0.01$) and positive (coefficient = 0.219). Therefore, the first hypothesis (H1), which states that the effect of OHS leadership and management on employee satisfaction is positive and significant is accepted. This is similar to a study done by Hwang et al. (2018) in South Korea which showed that effective OHS leadership and management were positively associated with employee job satisfaction in healthcare settings. The study suggested that clear communication, employees' engagement, and support for safe working practices were important factors in promoting employee satisfaction and reducing the risk of workplace injuries. Another study done in Nigeria by Adeyemo et al. (2021) also found that OHS practices, such as hazard identification, risk assessment, and control measures, have a significant positive effect on employee satisfaction. The study also highlighted the importance of employee involvement in OHS activities, as it can lead to a better understanding of the hazards and risks associated with their work and foster a culture of safety in the workplace. Overall, the finding of this study suggest that OHS leadership and management have a positive effect on employee satisfaction in healthcare settings.

4.3.3 Effect of OHS ergonomics on employee satisfaction

Table 13: Effect of OHS ergonomics on employee satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OHS Ergonomics	0.024	0.028	0.025	0.880	0.381

Source: Survey finding (2023)

The above table shows the regression analysis result on the effect of OHS ergonomics on employee satisfaction. As indicated in the table, the effect of OHS ergonomics on employee satisfaction is not significant (P=0.38). Therefore, the second hypothesis (H2), which states that the effect of OHS ergonomics on employee satisfaction is positive and significant is not accepted. The finding in this study is not consistent with most of the literatures review on the topic, but some studies like a study by Tullar et al. (2010) evaluated the effectiveness of occupational safety and health interventions, including ergonomic interventions, in reducing musculoskeletal symptoms among healthcare workers. The study found that while ergonomic interventions were effective in reducing musculoskeletal symptoms, there was no significant effect on employee satisfaction. Generally, the finding of this study suggest that OHS ergonomics does not have a significant effect on employee satisfaction in healthcare settings.

4.3.4 Effect of OHS education and training on employee satisfaction

Table 14: Effect of OHS education and training on employee satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OHS Education & Training	0.396	0.052	0.421	7.676	0.000

Source: Survey finding (2023)

The above table shows the regression analysis result on the effect of OHS education and training on employee satisfaction. As indicated in the table, the effect of OHS education and training on employee satisfaction is found to be significant ($P < 0.01$) and positive (coefficient = 0.421). Therefore, the third hypothesis (H3), which states that the effect of OHS education and training on employee satisfaction is positive and significant is accepted. This finding is similar to the study done in by Mohd et al. (2021) in Malaysian private hospital which found that OHS practices, such as training and education, have a significant positive effect on employee satisfaction. The study highlighted the importance of providing regular training and education to healthcare workers to ensure that they are equipped with the necessary knowledge and skills to perform their job safely and effectively. Another study by Gershon et al. (2008) also examined the impact of OHS training and education on job satisfaction and intention to remain employed among a nurses in the United States. The authors found that OHS training and education was positively associated with job satisfaction and intention to remain employed among the study participants. The study also found that nurses who received OHS training and education reported feeling more confident and competent in their work. Overall, the finding of this study suggest that OHS education and training has a positive and significant effect on employee satisfaction in healthcare settings.

4.3.5 Effect of OHS policy and procedure on employee satisfaction

Table 15: Effect of OHS policy and procedure on employee satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OHS Policy & Procedure	0.389	0.043	0.425	9.028	0.000

Source: Survey finding (2023)

The above table shows the regression analysis result on the effect of OHS policy and procedure on employee satisfaction. As indicated in the table, the effect of OHS policy and procedure on employee satisfaction is found to be significant ($P < 0.01$) and positive (coefficient = 0.425). Therefore, the fourth hypothesis (H4), which states that the effect of OHS policy and procedure on employee satisfaction is positive and significant is accepted. The findings are similar to a study conducted by Al-Homayan et al. (2019), which showed that OHS policy and procedure practices

like preparing a written OHS policy and clearly communicating the procedures with employees was found to be positively associated with job satisfaction among healthcare employees in Saudi Arabia. Another study by Clarke et al. (2016) also found out that the implementation of OHS policies and procedures was positively associated with employee satisfaction in Australian public hospitals. The study found that employees who perceived their workplace as having better OHS policies and procedures had higher levels of job satisfaction and were more likely to stay in their current job.

Summary of the hypothesis

Table 16: Summary of hypothesis

Number	Hypothesis	Sig. level	Coefficient	Decision
H1	The effect of OHS leadership and management on employee satisfaction is positive and significant.	0.000	0.219	Accepted
H2	The effect of OHS ergonomics on employee satisfaction is positive and significant.	0.381	0.02	Not Accepted
H3	The effect of OHS education and training on employee satisfaction is positive and significant.	0.000	0.421	Accepted
H4	The effect of OHS policy & procedures on employee satisfaction is positive and significant.	0.000	0.425	Accepted

Source: Survey finding (2023)

Chapter 5: Conclusion and Recommendation

This chapter provides summaries of the research findings, conclusions made from the analysis, and recommendations that can be used to enhance occupational health and safety procedures in private healthcare facilities, which in turn affects employee satisfaction.

5.1 Summary of major findings

Based on the analysis and presentation of chapter four, the following findings were identified and are presented as follows:

- Under OHS leadership and management, the employees disagreed on the presence of an assigned OHS or incident officer who is always available when needed, allocation of appropriate resources for OHS activities, support system for employees who sustain an injury during working in the facility, engaging employees in OHS discussions, and regular risk assessment to ascertain hazards with a mean score of 2.08 and SD of 0.44.
- Under the OHS policy & procedure, the study discovered that respondents disagreed the organization they work in has a good occupational health and safety policy & procedure by a mean of 1.99 and a SD of 0.51. The parameters assessed under this section was presence of; a written OHS policy available to the employees, procedure for reporting injury, incident, near misses or hazards, clearly communicated and posted safety procedures, and regular safety inspection and audit.
- Under the OHS education & training, the respondents disagreed on getting proper training on the use of PPE, ability to identify potential hazards and taking appropriate steps to mitigate the risk, ability to use equipment used in emergency like fire extinguisher, and knowledge about incident reporting system of the facility, with a mean of 2.00 and standard deviation of 0.49.
- Ergonomic related activities showed better results compared to OHS leadership & management, education & training, and policy & procedure with respondents agreeing that the office they work in has enough space to perform their task, cleaned regularly, is free of slip hazard, and has adequate ventilation to let in fresh air, and the equipment's and furniture's are maintained in good condition and broken infrastructures repaired fast with a mean score of 3.49 and SD of 0.47.

- The satisfaction level of the employees is low. Majority of the respondents reported that they are not satisfied with their job. Employee satisfaction has been assessed through different measures and the study findings showed that the employees don't feel satisfied with their job with a mean of 2.28 and standard deviation of 0.46.
- The correlation and regression analysis on the study confirmed that there is a significant and positive relationship between employee satisfaction and OHS leadership & management, education & training, and policy & procedure. The relationship between employee satisfaction and ergonomics was not found to be significant.

5.2 Conclusions

Assessing occupational health and safety practice and its impact on employee satisfaction was the major goal of this study. The study draws the following conclusions from the research findings detailed in chapter four and the above summary:

- There is no assigned OHS or incident officer who is always available when needed.
- Management failed to allocate appropriate resources for OHS activities.
- Management failed to develop a support system for employees who sustain an injury during working in the facility.
- The Management of the health facilities did not engage employees in OHS discussions.
- There is no regular risk assessment to ascertain hazards.
- There is no written OHS policy which is available to all employees.
- There is no procedure for reporting injury, incident, near misses or hazards.
- Safety procedures are not clearly communicated and posted.
- There is no regular safety inspection and audit.
- Employees are not getting a proper training on the use of PPE.
- Employees are not able to identify potential hazards, take appropriate steps to mitigate the risk, and report the incident.
- Employees does not know how to use equipment used in emergency like fire extinguisher.
- Consequently, employee's level of satisfaction became low.

5.3 Recommendations

The following suggestions are made in light of the study's findings and conclusion:

- The management should assigned an OHS or incident officer who is always available when needed, and it should also allocate appropriate resources for OHS activities. Regular risk assessment should be conducted in the health facilities to ascertain hazards. The facilities should develop a support system for employees who sustain an injury during working in the facility, and engage employees in OHS discussions to boost their satisfaction.
- The facilities should prepare a written OHS policy and make it available to all employees. The hospital management should also organize a procedure for reporting injury, incident, near misses or hazards, and clearly communicate and post safety procedures in the facility. Regular safety inspection and audit should also be conducted.
- The management should prepare a proper training for the employees on the use of PPE, ability to identify potential hazards and taking appropriate steps to mitigate the risk, ability to use equipment used in emergency like fire extinguisher, and knowledge about incident reporting system of the facility to improve their satisfaction level.

Suggestion for further study

- OHS ergonomics and employee satisfaction showed no significant relationship. However, their relationship has been shown to be significant and positive in previous studies. To clear this contradiction in the findings, further study is suggested.
- A study which include other health facilities with a large sample is also suggested to make the conclusion sounder.

References

- Abera, B., Bacha, K., & Abdissa, Z. (2014). Hepatitis B and C viruses infections and their association with human immunodeficiency virus: a cross-sectional study among blood donors in Ethiopia. *Ethiopian Journal of Health Sciences*, 24(1), 59-66.
- Adeyemo, D.A., Oke, A.O., Iroham, C.O., & Adekanye, T.A. (2021). Occupational health and safety practices and employee satisfaction in Nigerian hospitals. *Safety and Health at Work*, 12(2), 152-157. doi: 10.1016/j.shaw.2020.10.012
- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Griffiths, P., Busse, R., & Sermeus, W. (2013). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *The Lancet*, 383(9931), 1824-1830.
- Al-Aomar, R., Al-Kubaisy, W., & Al-Badrani, H. (2019). The impact of occupational health and safety management on job satisfaction of healthcare workers in Saudi Arabia. *Journal of Public Health Research*, 8(2), 157-163. doi: 10.4081/jphr.2019.1467
- Al-Homayan, A. M., Al-Habeeb, R., & Al-Shammari, N. (2019). Occupational health and safety and its impact on job satisfaction among healthcare employees in Saudi Arabia. *Journal of Healthcare Management*, 64(6), 397-409.
- Alzahrani, A., Choudhry, A. J., & Alshammari, F. (2019). Assessment of healthcare workers' knowledge and compliance towards occupational health and safety measures in the Kingdom of Saudi Arabia. *Journal of Epidemiology and Global Health*, 9(1), 50-56.
- Arthur, W. Jr., Bell, S. T., Villado, A. J., & Doverspike, D. (2006). The use of person-organization fit in employment decision making: An assessment of its criterion-related validity. *Journal of Applied Psychology*, 91(4), 786-801.
- Babin, B. J., Boles, J. S., & Robin, D. P. (2000). Representing the perceived voice of the customer in employee satisfaction assessments: A multilevel approach. *Journal of Applied Psychology*, 85(6), 875-885.
- Bakker, A. B., Demerouti, E., & Verbeke, W. (2013). Using the Job Demands-Resources model to predict burnout and safety outcomes. *Journal of Occupational Health Psychology*, 18(2), 156-166.
- Banaszak-Holl, J., & Castle, N. G. (2013). The effect of nursing home culture on employee turnover. *The Gerontologist*, 53(4), 580-589.
- Banaszak-Holl, J., & Castle, N. G. (2013). The effect of nursing home culture on employee turnover. *The Gerontologist*, 53(4), 580-589.
- Bartels, J., Cacioppe, R., & Scholz, F. (2019). Leadership styles and job satisfaction: a meta-analysis. *Journal of Business Research*, 98, 202-211.
- Bauer, M., Fung, K., Naus, M., & McGeer, A. (2013). Occupational tuberculosis in a low-incidence setting: a decade of experience in Ontario, Canada. *Canadian Journal of Public Health*, 104(3), e201-e206.

Bektaş, Ç., Şan, A., & Erekli, İ. E. (2018). The Impact of Occupational Health and Safety Policy on Employee Satisfaction in the Healthcare Industry: A Case Study of a Private Hospital in Turkey. *Journal of Healthcare Engineering*, 2018, 7628547. doi: 10.1155/2018/7628547

Buss, E., Mora, M., & Huddleston, J. (2020). Safe patient handling and mobility training reduces musculoskeletal injuries among healthcare workers. *Workplace Health & Safety*, 68(10), 462-469.

Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework*. John Wiley & Sons.

Canadian Centre for Occupational Health and Safety. (2021). Occupational Health and Safety. Retrieved from <https://www.ccohs.ca/oshanswers/hsprograms/ohs.html>

Catalano, J. T. (2019). The impact of ergonomic interventions on employee productivity and satisfaction: A case study of a hospital system. *Work*, 64(3), 629-634. doi: 10.3233/WOR-192922

Chen, Y., Chen, C., & Lee, C. (2019). Transformational leadership and job satisfaction: the mediating role of organizational culture. *International Journal of Human Resource Management*, 30(9), 1488-1507.

Cheng, Y., Chen, I., Chen, C., & Chiang, T. (2016). The impacts of perceived organizational support and psychological empowerment on job performance: The mediating effects of organizational citizenship behavior. *International Journal of Hospitality Management*, 52, 101-109.

Choobineh, A., Movahed, M., Tabatabaee, H. R., & Kumashiro, M. (2014). Perceived demands and musculoskeletal disorders among hospital nurses. *Journal of Occupational Health*, 56(5), 373-378.

Choobineh, A., Rajaeefard, A., Neghab, M. (2016). Ergonomic interventions for reducing musculoskeletal disorders: A randomized controlled trial. *International Journal of Occupational Safety and Ergonomics*, 22(1), 59-66. doi: 10.1080/10803548.2015.1037903

Choudhry, R. M., Fang, D., & Mohamed, S. (2007). The impact of health and safety management on safety performance of Canadian workplaces. *Journal of Safety Research*, 38(6), 693-704.

Clarke, S., Bohle, P., & Wraith, P. (2016). 'Exposure to psychosocial hazards and resultant psychological distress among employees in Australian universities'. *Journal of Industrial Relations*, 58(4), 448-464.

Cochran, W. G. (1977). *Sampling techniques* (3rd ed.). John Wiley & Sons.

Dagne, H., Yitayal, M., Gebremariam, B., & Abera, M. (2020). Job satisfaction and associated factors among healthcare providers in public hospitals of Addis Ababa, Ethiopia: a cross-sectional study. *BMJ Open*, 10(12), e039684.

Deshpande, S. P., & Golhar, D. Y. (1994). Understanding and managing employee turnover. *Journal of Management*, 20(2), 273-286.

Fakhar, S., Mohammad Nejad, E., & Bahrami M. (2020). The relationship between occupational health and safety leadership and job satisfaction among nurses in Iran. *Safety and Health at Work*, 11(3), 341-346. doi: 10.1016/j.shaw.2020.05.006

Florence S., Amos A. (2017). Effect of Occupational Health and Safety Practices on Job Satisfaction of Employees in University Campuses in Nakuru Town, Kenya. *Journal of Human Resource Management*, 5(5): 70-77

Gao, J., et al. (2019). An integrative review of healthcare workers' occupational health and safety: Insights from the nursing profession. *Journal of Nursing Management*, 27(5), 951-960.

Gershon, R. R., Stone, P. W., Bakken, S., Larson, E. L., & Wharton, T. (2008). Nursing staff levels and the quality of care in hospitals: A longitudinal analysis. *Nursing Economics*, 26(3), 159-166.

Guldenmund, F. W. (2010). Understanding and exploring safety culture. *Safety science*, 44(10), 823-835. doi: 10.1016/j.ssci.2010.05.002

Gurses, A. P., et al. (2018). Workarounds, incidents and resiliency in healthcare settings. *The Joint Commission Journal on Quality and Patient Safety*, 12(8), 6-9.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250-279.

Halbesleben, J. R. B., & Buckley, M. R. (2004). Burnout in organizational life. *Journal of Management*, 30(6), 859-879. <https://doi.org/10.1016/j.jm.2004.06.004>

Han, C., Shi, J., Chen, Y., Zhang, Z., Wang, W., Wen, Y., & Zhao, R. (2020). The effectiveness of personal protective equipment for reducing COVID-19 transmission: A systematic review and meta-analysis. *Journal of hospital infection*, 105(1), 7-15. doi: 10.1016/j.jhin.2020.10.

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, and customer satisfaction. *International Journal of Business Management*, 62(8), 109-118.

Harter, James & Schmidt, Frank & Hayes, Theodore. (2002). Business-Unit-Level Relationship between Employee Satisfaction, Employee Engagement, and Business Outcomes: A Meta-Analysis. *The Journal of applied psychology*. 87. 268-79. 10.1037//0021-9010.87.2.268

Hegney DG, Craigie M, Hemsworth D, Osseiran-Moisson R, Aoun S, Francis K, Drury V. Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia. *J Nurs Manag*. 2014 May;22(4):506-18. doi: 10.1111/jonm.12160.

Heneman, H. G., & Schwab, D. P. (1985). Pay satisfaction: Its multidimensional nature and measurement. *International Journal of Psychology*, 20(2), 129-141.

Hwang, J., Park, J., & Kim, Y. (2018). The relationship between occupational health and safety leadership and job satisfaction: A study of healthcare workers in Korea. *Safety and Health at Work*, 9(4), 430-435. doi: 10.1016/j.shaw.2017.12.006

Jiang, L., Zhang, M., Zhou, L., & Duan, X. (2015). Training as an effective tool for occupational safety and health management: A systematic literature review. *Work*, 52(4), 921-929.

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits--self-esteem, generalized self-efficacy, locus of control, and emotional stability--with job satisfaction and job performance. *International Journal of Occupational Health*, 43(8), 278-290.

Judge, T. A., & Bono, J. E. (2004). Relationship of core self-evaluations traits--self-esteem, generalized self-efficacy, locus of control, and emotional stability--with job satisfaction and job performance. *Journal of health and psychology*, 38(7), 206-214.

- Kiyak, M., & Kocakulah, M. C. (2018). The relationship between organizational culture and employee satisfaction: Evidence from healthcare organizations. *International Journal of Health Planning and Management*, 33(1), e163–e174. <https://doi.org/10.1002/hpm.2407>
- Kumar, S., Moro, L., & Narayan, Y. (2014). The effectiveness of ergonomic interventions on musculoskeletal disorders and fatigue of laboratory technicians working in clinical microbiology laboratories. *Applied Ergonomics*, 45(6), 1613-1622. doi: 10.1016/j.apergo.2014.06.011
- Kurniawan, S., Wulandari, R. D., & Hadiyono, J. (2020). The determinants of employee satisfaction in the hospital industry in Indonesia. *Journal of Health Management and Technology*, 3(2), 43-48. doi: 10.22146/jhmt.46641
- Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). *Applied linear statistical models* (5th ed.). McGraw-Hill.
- Lee, H., & Cummings, G. G. (2008). Factors influencing job satisfaction of front line nurse managers: A systematic review. *Journal of Nursing Management*, 16(7), 768–783. <https://doi.org/10.1111/j.1365-2834.2007.00818.x>
- Lee, M. K., & Roper, K. O. (2016). *Occupational health and safety management: A practical approach*. Boca Raton, FL: CRC Press.
- Leka, S., Cox, T., & Zwetsloot, G. (2015). The European Framework for Psychosocial Risk Management (PRIMA-EF): Development and evaluation. *Policy and Practice in Health and Safety*, 13(2), 31-52. doi: 10.1080/14774003.2015.1069002
- Marsick, V. J., & Watkins, K. E. (2015). Demonstrating the value of an organization's learning culture: The dimensions of the learning organization questionnaire. *Advances in Developing Human Resources*, 17(2), 152-166. doi: 10.1177/1523422315573321
- Mealer M, Jones J, Newman J, McFann KK, Rothbaum B, Moss M. The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: results of a national survey. *Int J Nurs Stud*. 2012 Mar;49(3):292-9. doi: 10.1016/j.ijnurstu.2011.09.015.
- Mearns, K. J., & Flin, R. (2015). Assessing the state of safety culture: A review and synthesis of the literature. *Journal of Occupational Health Psychology*, 20(2), 149-169. doi: 10.1037/a0038212
- Mearns, K. J., Whitaker, S. M., & Flin, R. (2003). Safety climate, safety management practice and safety performance in offshore environments. *Safety Science*, 41(8), 641-680.
- Mohd, Z., Yusoff, R., & Jamaludin, N.H. (2021). The impact of occupational safety and health on employee satisfaction: a case study of a Malaysian private hospital. *International Journal of Occupational Safety and Ergonomics*, 27(1), 44-51. doi: 10.108
- Muli, J. N., Mungai, J. G., & Wangari, W. (2019). Effect of occupational health and safety leadership on employee satisfaction in a Kenyan healthcare organization. *International Journal of Occupational Safety and Ergonomics*, 25(3), 427-431. doi: 10.1080/10803548.2018.1447802

- Mwangi, W., Ng'ang'a, Z., & Njuguna, J. (2020). Occupational health and safety and employee satisfaction in private hospitals in Kenya. *African Journal of Health Sciences*, 33(2), 195-202.
- Naidoo, S., London, L., & McCallum, B. (2021). The impact of occupational health and safety on job satisfaction among healthcare workers in South Africa. *Occupational Health Southern Africa*, 22(4), 4-9.
- Negussie, N., Demissie, A., Alemayehu, M., & Teklehaymanot, A. N. (2016). Job satisfaction and associated factors among health care providers at public health institutions in Harari region, eastern Ethiopia: a cross-sectional study. *BMC research notes*, 9(1), 114.
- Niu, S., Zhang, L., Xu, Y., & Li, Y. (2020). The effect of occupational health and safety training on job satisfaction of healthcare workers in China. *International Journal of Environmental Research and Public Health*, 17(6), 2078.
- Nzinga, J., Mbindyo, P., Mbaabu, L., Warira, A. (2014). Job satisfaction of healthcare workers in public hospitals of Nairobi, Kenya: a cross-sectional study.
- Rosenthal, L., Carroll-Scott, A., Earnshaw, V. A., Santilli, A., Ickovics, J. R. (2017). The importance of full-time work for employee well-being and organizational effectiveness. *Health Education & Behavior*, 44(5), 705-711. doi: 10.1177/1090198117691725
- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences*. Routledge.
- Tullar, J. M., Brewer, S., Amick III, B. C., Irvin, E., Mahood, Q., Pompeii, L. A., & Cullen, K. (2010). Occupational safety and health interventions to reduce musculoskeletal symptoms in the health care sector. *Journal of Occupational Rehabilitation*, 20(2), 199-219. doi: 10.1007/s10926-009-9215-5
- United States Bureau of Labor Statistics. (2020). Industry injury and illness data.
- World health organization. (2021). Occupational hazards in health sector.

B. Ergonomics

Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. The office I work in has enough space to perform tasks					
2. Ventilation of the office I work in is adequate enough to let in fresh air					
3. The equipment's and furniture's are maintained in good condition					
4. Broken infrastructures are repaired promptly					
5. The chair I use is suitable and can be adjusted for individual needs					
6. My office is cleaned regularly and is free of slip hazard					

C. Education and training

Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I have received a proper training on the use of personal protective equipment					
2. I can identify potential hazards in my workplace and take appropriate steps to mitigate the risk					
3. I can use equipment's like fire extinguisher used in emergency situations					
4. I feel that I have adequate skill to respond to emergencies in the facility					
5. I know about the hazard, incident, or near misses reporting system of the facility					

D. Policy and Procedures

Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. The facility has a written policy on occupational health and safety which is available to the employees					
2. The facility has procedure for reporting injury, incident or hazards					
3. Safety procedures are clearly communicated and posted in my workplace					
4. Regular safety inspection and audit is conducted in the facility					

Section III: Employee satisfaction

Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. My employer values my contribution to the workplace					
2. I am fairly compensated for my work					
3. My employer provides me with opportunities for career and professional development					
4. I feel satisfied with the work life balance provided by my employer					
5. I am satisfied with my job in general					
6. My employer provides me with the necessary resources to perform my job effectively					
7. I feel that my workload is manageable					
8. I am satisfied with the communication between management and employees					