Arab American University

Faculty of Graduate Studies

The Impact of Occupational Health and Safety (OHS) Regulations on Job Satisfaction of Employees in the Pharmaceutical Industry in Ramallah & Al-Bireh District.

By

Alaa Abdulhadi Beidas

Supervisor

Prof. Nihaya El-Telbani

This Thesis was submitted in partial fulfillment of the requirement for the Master's degree in

Quality Management

September/2019

I

The Impact of Occupational Health and Safety (OHS) Regulations on Job Satisfaction of Employees in the Pharmaceutical Industry in Ramallah & Al-Bireh District.

By

Alaa Abdulhadi Beidas

This thesis was defended successfully on 28/09/2019 and approved by:

Committee members	Signatures
1. Prof. Nihaya El-Telbani	.....
2. Dr. Ashraf Almimi	.....
3. Dr. Yahya Saleh	.....

Declaration

I hereby declare that this thesis represents my own work which has been done after registration for the degree of Quality Management at Arab American University, and has not been previously included in a thesis or dissertation submitted to this or any other institution for a degree, diploma or other qualifications. Furthermore, I took reasonable care to ensure that the work is original, and, to the best of my knowledge, does not breach copyright law, and has not been taken from other sources except where such work has been cited and acknowledged within the text.

I hereby give the Arab American University the right to store and make my thesis available in electronically form, and provide copies of the thesis to individuals and institutions in accordance with the regulations and instructions of the Arab American University.

Alaa Beidas

20/11/2019

{وَقُلْ رَبِّ زِدْنِي عِلْمًا}

صدق الله العظيم

(سورة طه – الآية 114)

{وَمَا تَوْفِيقِي إِلَّا بِاللهِ عَلَيْهِ تَوَكَّلْتُ وَإِلَيْهِ أُنِيبُ}

صدق الله العظيم

(سورة هود - الآية 88)

Dedication

To my father

To my dearest mother

To my beloved brothers and sisters

To my friends and colleagues

To my beautiful wife and amazing kids: Sema, Zeinaddin and Omar

To all of you, I present this humble work

Alaa Beidas

Acknowledgment

I would like to thank my supervisor, Prof. Nihaya El-Telbany, for her constant support and guidance. Her friendly encouragement has been greatly appreciated.

I should also like to thank my wife, family and friends who have also helped ensure that this thesis was completed.

Finally, I would like to thank all the employees that took the time to complete the questionnaire and participate in this study.

Abstract

This study aims to explore the impact of Occupational Health and Safety (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District**.** The researcher used the descriptive analytical method and the stratified random sample to collect the data from the employees working in the pharmaceutical industry in Ramallah & Al-Bireh District (932 employees). The sample of the study has 129 employees. To achieve the objectives of the study, a questionnaire was designed as a tool for data collection. 122 responses were retrieved, the response rate was 94.5%. The SPSS program was used to analyze the data and to test the hypotheses.

This study showed that there is a high agreement among employees in the pharmaceutical industry in Ramallah and Al-Bireh District concerning OHS regulations, and high level of job satisfaction between workers. Also, this study showed that there is a significant statistical relationship between the (OHS) regulations and job satisfaction, and a significant statistical effect of the (OHS) regulations on job satisfaction among employees.

This study concluded that increasing both the employee's participation in OHS and the OHS awareness between employees, will increases job satisfaction.

Table of contents

List of Tables

List of Figures

List of Appendices

Chapter One

Introduction

1.1 Overview

A fundamental human right for workers is a safe working condition. The absence of protective measures causes bad workplace conditions. Safety environment has been developed as an essential concept for OHS to measure productivity of the organization, and the health of its workers.

Studying job satisfaction increased dramatically in the recent years, because of its importance and role in the success of enterprises. The increase in employee satisfaction, often results in better performance, motivation and greater commitment to the institution. Job satisfaction is recognized as a measure of how effective the performance is. If the employee is satisfied with the work, it will result in good outcomes similar to a raise in salary or allowances received from the employer. Job satisfaction leads to better work results and less accidents. When the employee is satisfied with the OHS regulation in his work, the accidents rates will be minimized (Mathis, 2003). If OHS is practiced in the company, it would reduce the safety and health hazards in the work (Hayes, 1998).

Studies showed that accidents happened as a result of not recognizing dangerous hazards before starting the work, continuing to work with the familiarity of unsafe environment and working despite the conditions of the work conditions (Abdelhamid, 2000). When the OHS regulations are implemented, an environment full of safety and comfort will be created which will assist in avoiding work accidents, reducing the feeling of unsafe at work, leading to performing well (Veltri 2007).

This study aims to explore the impact of OHS regulations on job satisfaction among the employees in pharmaceutical industry in Ramallah and Al-Bireh District.

1.2 Pharmaceutical Industry in Palestine

Manufacturing medicine in Palestine is considered to be powerful in the area of developments and research. Before the foundation of the pharmaceutical companies, the medicine was imported from Amman to Palestine from international companies with very small amounts. After the 1967 and after closing borders, there were difficulties to enter medicines to Palestine and therefore there were needs to find new sources, since it was only the Israeli medicine that is available or medicine that is imported to Israel .To overcome this problem ,small laboratories were established to produce simple formulas like syrups. These small laboratories by time were converted to become 3 large companies, and more companies followed to enter this field.

With time, these companies started to organize the medicine sector by forming a union to represent all the companies in Palestine that produce medicines. The union started to develop the techniques and providing companies with training and the desired certificates like ISO 9000 ISO 14000 and GMP. As a result, more and more registered generic products were produced with a good price comparing to the imported ones.

In 1970s the number of pharmaceuticals companies reached 9 companies as a result of the increased demands and the high profit. The patented drugs reached 800 in 1990s, 12 companies were built to manufacture medicines, six for human use and six for veterinary. Not all of the six companies for human medicine have the Good Manufacturing Practices (GMP), only four of them and the rest is in the process to gain the certificate. Since their establishments, the Palestinian medicines companies worked to meet the needs of the Palestinian market for the last 25 years, the major companies have capital in investment

that reached 45 million dollars. The major location of the companies is in the West Bank and one is located in Gaza Strip, they mostly produce medicines for the Palestinian market.

Quality Assurance made the process of exporting local medicine to the world became possible, since the local Pharmaceuticals companies adhered to compliance with GMP. The small local market is considered to be a major challenge for these companies, the political situation also plays a role to restrain and prevent to reach the global market. Restriction were practiced by the Israeli occupation by preventing raw materials to be imported on the pretext of security threats. The free of movement and transportations also were restricted between the Palestinian cities and towns which leaded to closing the only pharmaceutical company in Gaza because of the Israeli siege. (UPPM, 2019)

1.2.1 Birzeit Pharmaceutical Company (BPC)

BPC started as a private company in 1974, the start was in Birzeit village that is located north of Ramallah & Al-Bireh. In 1992 BPC united with Palestine Medical Company and established Medix that represents a number of International beauty care companies. The ISO 9001 Certificate was acquired in 2001along with acquisition of the Eastern Chemical Company that was fully accomplished in 2004. The company continued to acquire more certificate like ISO 14001 and GMP, which enabled the company to double its exports and revenues. The company produces more than 300 formula covering many therapeutic areas. In addition to the Palestinian market, the company exports its products to Algeria and parts of Eastern Europe. The team consists of 300 well trained employees in Quality and production (www.bpc.ps).

1.2.2 Jerusalem Pharmaceuticals Company (JPharm)

Jerusalem Pharmaceuticals Company was established in 1969 in Al-bireh in Palestine. The main factory located in Al-Bireh is divided into 3 sub factories each with different products according to regulations JPharm possess different kind of certificate like ISO 9001 that was given in 1998. In 2000 the company was certified with ISO 14001. The company was successfully granted the GMP certificate and JFDA in 2016. JPharm expanded its activity to reach countries like Algeria, Yemen and Iraq. Now the JPharm group consists of 3 manufacturing sites. In addition to Palestine there is one manufacturing site in Jordan and one in Algeria with 2 research and development laboratories. The total employees in JPharm in Palestine is 302 employees with different kinds of specializations. In addition to medicine, JPharm produces cosmetics, veterinary and other agricultural products. The Company produces more than three hundred products in various formulas (www.jepharm.ps).

1.2.3 Pharmacare PLC (PCP)

Pharmacare was established in the mid-eighties in Beitunia- Ramallah. In 2000 the company was certified with ISO 9001 and 14000. The GMP certificate was obtained in 2008, which leads to export products to Europe and opening a branch in Malta as a gateway to the European countries like Germany. The company produces over 150 formula with a total of 330 employees (www.pharmacare-ltd.net).

The Palestinian pharmaceuticals companies must play a special role in developing and meeting needs of the local market and developing partnership and cooperation with scientific and research institutions and centers, to support and promote scientific research which is the basis for the excellence and advancement of peoples.

1.3 Problem Statement

Job satisfaction is considered to be a major concern in every organization to achieve effectiveness and efficiency, and implementing the organization's strategy successfully (Bigliardi, 2012). Despite the importance of job satisfaction in the work places, work accidents at workplaces in Palestine are high in the last 3 years. The number of registered work accidents in Palestine from 2016 to 2018 were 682, 808 and 776 respectively (Ministry of Labor annual report, 2018).

Previous studies that measured the satisfaction degree and its relationship with OHS regulations in facilities showed that increasing the OHS regulations, will affect the job satisfaction. Ewaiwi (2008) concluded that providing a safe working environment, safety tools at work, and the presence of a training and awareness programs of OHS will lead to job satisfaction.

1.4. Study Model

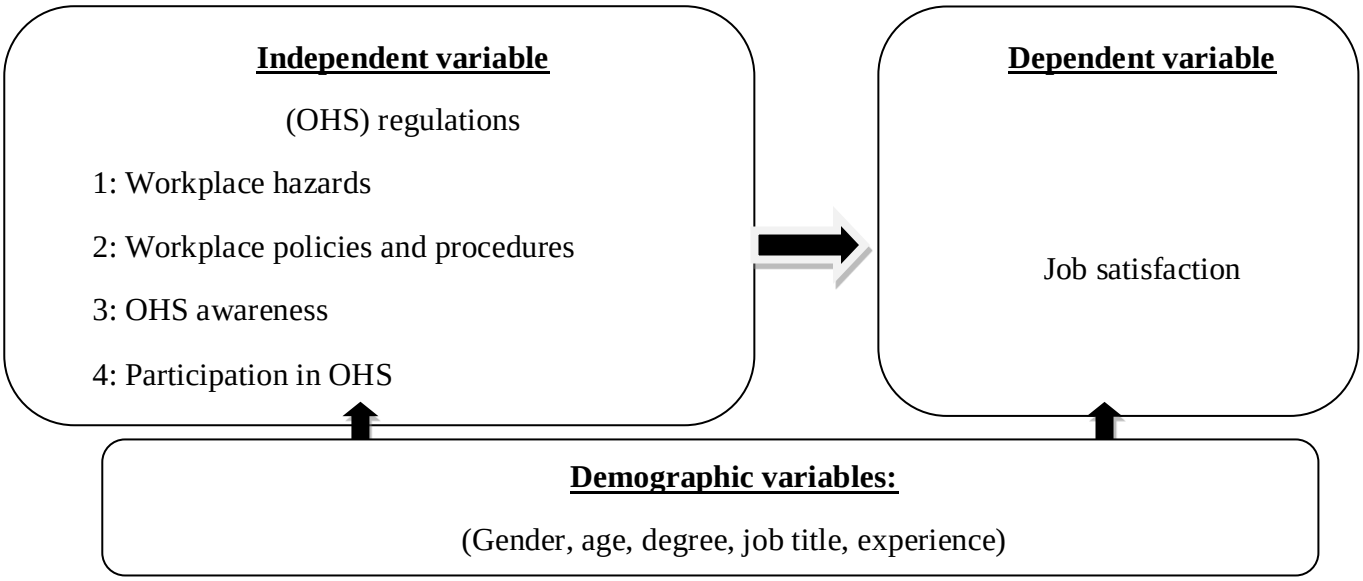

Figure 1: Study Model

1.5 Hypothesis

Hypothesis 1: There is a significant statistical relationship at ($\alpha \leq 0.05$) between the (OHS) regulations and job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

Sub-hypothesis 1: There is a significant statistical relationship at ($\alpha \leq 0.05$) between workplace hazards and job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

Sub-hypothesis 2: There is a significant statistical relationship at ($\alpha \leq 0.05$) between workplace policies and procedures and job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District

Sub-hypothesis 3: There is a significant statistical relationship at ($\alpha \leq 0.05$) between OHS awareness and job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District

Sub-hypothesis 4: There is a significant statistical relationship at ($\alpha \leq 0.05$) between participation in OHS and job satisfaction between employees in the pharmaceutical industry in Ramallah and Al-Bireh District

Hypothesis 2: There is a significant statistical effect at ($\alpha \leq 0.05$) of the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

Hypothesis 3: There are significant statistical differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning (OHS) regulations between employees in

the pharmaceutical industry in Ramallah and Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience).

Hypothesis 4: There are significant statistical differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience).

1.6 The Significance of the Research

The concept of OHS, and Job Satisfaction are important modern concepts. This study is aligned with the desired development and represents a response to many Arab and foreign studies that recommended conducting such studies. The relative scarcity of studies concerning OHS, and job satisfaction in the Pharmaceuticals companies make this study is one of the first studies - to the best of the researcher's knowledge - that connects OHS regulations with job satisfaction in the pharmaceutical companies in Ramallah and Al-Bireh. The reality of OHS regulations, and the availability of job satisfaction between workers in the pharmaceutical's companies in Ramallah and Al-Bireh was studied and a practical contribution can be made to identify the relationship of OHS regulations in achieving job satisfaction between workers in the pharmaceutical's companies in Ramallah and Al-Bireh. Through this study, the pharmaceuticals companies can identify the shortages in the application of OHS regulations and will be able to adopt the dimensions of OHS (Workplace hazards, Workplace policies and procedures, OHS awareness, Participation in OHS), which may lead to enhancing job satisfaction.

This study is expected to draw the attention of the top management of the pharmaceutical companies in Ramallah and Al-Bireh to the importance of OHS

regulations and their relationship to job satisfaction, which will lead to identify the methods to improve job satisfaction. Moreover, results of this study may benefit the quality units in the pharmaceuticals companies by improving OHS regulations and their outputs.

1.7 Research Questions

In this study, the following questions will be answered:

1: What is the degree of implementing the (OHS) regulations in the pharmaceutical industry in Ramallah and Al-Bireh District?

2: What is the degree of job satisfaction between employees in the pharmaceutical industry in Ramallah and Al-Bireh District?

3: What is the relationship of implementing the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District?

4: What is the effect of applying the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District?

5: Are there statistically significant differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning (OHS) regulations among employees in the pharmaceutical industry in Ramallah and Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience)?

6: Are there statistically significant differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical

industry in Ramallah and Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience)?

1.8 Research Objectives

The study assesses the effect of Occupational Health and Safety (OHS) regulations on Job Satisfaction. This general objective has the following sub-objectives:

1-To measure the degree of implementing (OHS) regulations on employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

2- To measure the degree of job satisfaction between employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

3- To test the relationship between applying the (OHS) regulations (Workplace hazards, Workplace policies and procedures, OHS awareness and Participation in OHS) on job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

4- To find out the effect of applying the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District.

5- To test the differences in the answers of the respondents concerning (OHS) regulations among employees in the pharmaceutical industry in Ramallah and Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience).

6- To test the differences in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical industry in Ramallah and Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience).

7- To provide recommendations that might assist the decision makers in understanding job satisfaction and how can OHS regulations assist in its improvement.

1.9 Definition of terms

- **Occupational Health and Safety (OHS):**

Conditions and factors that affect the health and safety of workers or others (including temporary or contractor) (ISO/FDIS 45001:2017)

- **Operational definition**:

The researcher may define (OHS) as: Providing a system to improve employee safety, minimize workplace hazards and create better, safer working environment by spreading awareness and participations among employees.

- **Job Satisfaction**:

A position that reflects one's positive and negative feelings towards work, co-workers, and the working environment**, (**Uhl-Bien, et al., 2014).

1.10 Thesis Structure

Chapter One: Introduction

1.1 Overview

1.2 Pharmaceutical Industry in Palestine

1.3 Problem Statement

1.4. Study Model

1.5 Hypothesis

1.6 The Significance of the Research

Chapter Two

Literature Review

2.1 Occupational Health and Safety (OHS)

2.1.1 Overview

The primary mission of any system of labor inspection is to ensure that labor's national standards are designed to protect all workers. The range of regulatory oversight of labor inspection is potentially huge and varies significantly from one country to another (ILO, 2016).

The General Directorate of Inspection and Labor Protection in the Ministry of Labor (MOL) formulates labor legislation, supervises its implementation and provides a safe condition at work. This is achieved by providing the parties of the production with information and technical instructions that help in implementing the provisions of the Labor Law. The inspection bodies prepare and design the awareness materials and guidance from publications, lectures, seminars and educational curricula in all ways available in cooperation with educational institutions and the media.

Work accidents have been a serious problem facing the MOL for the last decade. 682 work accidents were reported in 2016 in West Bank , and increased to 776 accidents in 2018. Fifteen work accidents were fatal and left families without a supporter and in bad poverty condition (General Directorate of Inspection & Work Protection Report, 2018)

The State of Palestine has also its regulations for protection to prevent accidents, illness and deaths, and clearly mentioned to ensure that workplaces are safe and don't threat workers (Council of Ministers, 2003). About 54% of the total employment in Palestine is not insured against work injuries (General Directorate of Inspection & Work

Protection Report, 2018). Practicing will give workers knowledge about risks. This is done by providing them with knowledge of the OHS program, as a result they will play a part in the change and phase in process. Spreading education and awareness in field visits among workers will give them experience to stay away from unsafe conditions that will result in work accidents. Furthermore, good training can be given at meetings, training in the fields, and worksite charts that can be excellent in displaying safety practices, knowledge and control of hazards.

2.1.2 Concept of OHS

The industrial field has been the most dangerous area for a long time, and the industrial sector security means protecting products from mechanical dangers and ensuring them from infections. The name of industrial security has been called due to the high rate of accidents in the industrial field compared to accidents in other sectors. Traditionally, the concept of industrial security was limited to wearing personal protective tools such as shoes, helmets and gloves and others.

With the ever-increasing development of machinery, equipment and various means of production, industrial security and occupational health became more comprehensive, as the previous concept was changed to cover all precautions and preventive technical and medical measures, and changing its name to its proper meaning (occupational health & safety) to protect the elements of production (industrial, agricultural and commercial) from accidents before they occur whenever possible, and to create a safe working environment free of all kinds of risks and diseases that threaten the lives and health of producers in all works (Helmi, et al., 2000).

Workplaces in workshops, factories and laboratories are abnormal environments in terms of high temperatures, rotary machines, sensitive devices, rapid reactions, toxic

substances, etc. They are also a complex of gases, liquids and solids, some of which may be very dangerous. Negligence or carelessness, even for a few moments, may be sufficient to cause the injury and cause the worker to suffer for long periods and may lead to loss of one of his organs or even to death. (Mishali, 2011)

2.1.3 Definition of OHS

There are differences between researchers on the development of a comprehensive definition of OHS. These different definitions focus on certain aspects of OHS, and neglecting others to reflect the concerns of their authors. The definition evolution of OHS can be illustrated in Table 1 below.

Table 1: Definitions of OHS

No	Author	Definition
1.	Joint Occupational Health Committee of the ILO and WHO,1950	The branch of health which aims to workers health in all professions and to maintain them at highest conditions of, psychological, physical and social wellbeing, and to prevent health deviations that may cause for workers from working conditions, and preventing from all hazards in workplaces and the placement and retention of the worker in a work environment appropriate to his physiological and psychosocial abilities.
2.	(Hendawi, 1994)	OHS is defined as the provision of safe working conditions necessary to maintain the three elements of production: man, machine, and material, surrounded by a fence of security and spreading an atmosphere of safety and tranquility in the work environment.
3.	(Zidan, 1994)	Measures to eliminate accidents, injuries and diseases, and to achieve safe working conditions, to keep the elements of production from being damaged and lost.
4.	(Aqeelah, 2003)	Protect different categories of workers from health effects that may arise from risks related to work, environment or conditions by addressing environmental, technical and individual components driving to these dangers and moving forward work conditions.
5.	(Abbas, 2003)	OHS are those exercises and strategies for the security of specialist from dangers coming from the work and from the work environment that will cause harm, maladies or mishaps.
6.	(Al-Rashidi, 2006)	All measures and efforts to prevent hazards in industrial facilities by using technical means that prevent or minimize the adverse effects of the hazard, to keep the human live secure and maintain profit.
7.	(Segen's, 2011)	A way to develop and ensure commitment with safe conditions, and monitor the health of workers.
8.	(WHO &ILO,2012)	The upgrading and keeping the highest grade of mental, physical and social welfare of workers in all workplaces.
9.	(Ahmad, et al., 2016)	OHS is involved with health welfare and workers safety, it studies factors that contribute to workers, customers and family members at their work to identify, assess and control risks.
10.	(ISO/FDIS 45001,2017)	Conditions & factors that affect the health & safety of workers or others (including temporary or contractor), visitors, or any other one in the work.

By reviewing previous definitions presented by the researchers concerning OHS, it is clear that OHS has raised the interest of researchers, because it influences employee's behavior and then the performance of the organization and the formation of personality and identity. These different definitions agreed that OHS is a set of measures, efforts, conditions, activities that keep the workers' health safe and prevent work injuries.

2.1.4 Importance of OHS

Research and studies on OHS highlighted the importance of OHS by the following:

2.1.4.1 OHS contributes to reducing production costs resulting from reduction of accidents rates and work injuries.

2.1.4.2 Reduces periods of absence and interruption of work resulted from unhealthy work conditions.

2.1.4.3 OHS contributes to reducing production costs resulting from reducing waste in the material and defect and the result of the use of advanced mechanical systems.

2.1.4.4 The existence of these systems contributes to reducing production downtime and non-disruptive systems sudden repair and maintenance. (Victor, et al,2008).

2.1.4.5 An effective OHS system contributes to attracting skilled workers and distinguished competencies, stability of employment at work, and the close association of worker and the conditions in which it works.

2.1.4.6 Reduces turnover, and achieving high quality because of high quality production and moderate costs.

2.1.4.7 OHS strategy achieves immediate objectives like protecting workers from diseases, disabilities and preserve them and their physical potential as well as substantial material gains from increased production.

2.1.4.8 Contributes to organizational strategies to increase the competitiveness of the organization in the local environment and workers through outstanding reputation, high quality production, stability, growth in competitive markets, competitive costs and prices and increasing market prices of the Organization's shares. (Faith, 2015).

2.1.5 OHS Dimensions

The researcher studied the following four dimensions in OHS, as these dimensions are regulated by law in the Palestinian regulations like the Labor Law No.7, 2000, and Minster of Labor decisions and recommendations. These dimensions are a target group for any inspection process performed by the inspection bodies of the MOL in the field, and an important indicator for the commitment of facilities in the field of OHS:

2.1.5.1 Workplace Hazards

Hazardous conditions are conditions that may lead to accidents, including injuries, machinery or equipment malfunction, destruction of construction or loss of materials. In all work sites there are always hazards, and safety can only be achieved by knowing these hazards and taking the needed preventive measures. (Ashtewy, 2003).

2.1.5.1.1 Physical Hazards

- **Heat**

Excessive heat can lead to painful contractions in the muscles of the hands and feet accompanied by vomiting and diarrhea due to lack of salts from the body and exfoliation of the skin, in addition, direct exposure to heat cause skin inflammation and eyes as a result of infection. In the case of exposure to low temperature for a long time, it leads to the contraction of skin vessels, thus freezing that part of the body, leading to the death of tissues and loss of that member as a result (Jamil,1986). Based on Instructions of the

Labor Minister No. (6) for the year 2005 concerning the safe levels of tempratures at workplaces, see Annex 1 and Annex 2 .

- **Air**

Air pollution is the condition in which the air contains impurities and suspended substances other than its components or that its original components making them hazard to humans and the environment. (Hannah, et al, 2019).

- **Humidity**

The high humidity in the work environment when the temperature is stable causes the feeling of fatigue, exhaustion and inability to do the work in a healthy manner; because of the high internal temperature of the body and the evaporation of sweat from the surface of the skin. (Zidan, 1994). The regulations for temperature, humidity and Ventilation (Council of Ministers No. 49, 2004, Article -7) shall be followed, see Annex 3.

- **Lighting Intensity**

Workplace lighting intensity is an important factor in accident prevention, accidents resulting from poor or bad lighting are 15% of industrial accidents that can be minimized by using appropriate lighting that positively reflects productivity and provides the right environment for the worker. (Aqeelah, 2003). To prevent the effect of poor lightening, the regulations in Annex 4 and Annex 5 shall be followed (Council Ministers No. (49), 2004, Article -8)

- **Noise**

The functional definition of noise is defined as unwanted sounds. As for the physical definition of the sounds: "It is the spread of noise or disturbance that appears on shape change in air pressure and density (Mehta, et al, 2012). Based on instructions from the Labor Minister No. 4, 2005 the safe levels of workplace noise were regulated to be followed in the workplaces as in Annex 6. The exposure duration of workers is set to a noise level higher than 85 dB and up to 115 dB.

- **Vibration**

Vibration that is produced by some kinds of mechanisms such as machines, engines, drilling rigs, the regulations to prevent vibrations shall be followed as shown in Annex 7 (Council Ministers No. (49), 2004, Article -9).

- **Ionized Radiation**

Radiation is divided into 3 categories: Non-ionized radiation: such as infrared radiation, which is often found in furnaces, glass laboratories, and ultraviolet radiation, which abounds during welding processes. Ionizing radiation includes: alpha, beta & gamma, X-ray. Laser beams: a single, intense light. The continuous exposure to radiation can cause tissues and muscles death. Also, it causes death if exposure for a long time, to minimize the exposure to radiation, regulations shown in Annex 8 and Annex 9 shall be followed (Instructions of the Labor Minister No. (3) For the year 2005).

- **Electrical shocks**

Electrical shocks can cause effects whose severity depends on the path of the current, intensity and the duration. Electrical shocks cause minor burns, may cause local paralysis

and death, the regulations to prevent electrical shocks are stated in Annex10 (Council Ministers No. (49), 2004, Article -11)

2.1.5.1.2 Chemical Hazards

To prevent the effect of chemicals, the regulations in Annex11 shall be followed (Council Ministers No. (49), 2004, Article -13).

2.1.5.1.3 Biological Hazards

Management shall undertake precautions and measures to ensure the prevention of biological hazards, especially the risks arising from Annex 12: (Council Ministers No. (49), 2004, Article -16)

2.1.5.1.4 Mechanical Hazards

To prevent the effect of Mechanical Hazards, the regulations in Annex13 shall be followed: (Council Ministers No. (49), 2004, Article -4):

2.1.5.2 Workplace Policies and Procedures

Business policies are set of rules and principles developed by the management leadership to guide the thinking and performance of the employees towards a certain level, aiming to achieve the objectives of the organization, and these policies are clear and known to all employees. (Sultan, 2015). The policy objective is to provide multiple paths to the facility to reduce or prevent risk. Policy must be comprehensive to meet local legal requirements and also to meet international standards. OHS policy must contain at least the following points (ILO, 2019):

- Protecting all workers from wounds, illnesses and accidents that may arise as a result of a risk in the enterprise.

- Ensure compliance with legal and legislative requirements of the state and customers' requirements for OHS.
- Ensure that the worker and their representatives are involved in every detail of OHS Management System.
- The continuous improvement of OHS system must be the desired goal.

Policy should be documented, signed and dated, easy to understand and deliver to all levels of the worker in the facility and must be translated in case of presence of other nationalities. OHS legislation requires employers to have a risk management program at workplaces. In order to improve health and provide safety and occupational safety, it is necessary to take care of OHS programs in different establishments, these programs must achieve the required goals (ILO, 2019)

- **Planning OHS Programs in Industrial Establishments**

Various legal legislations form the legal framework for OHS procedures. The laws and regulations issued include many rules and procedures to be followed to provide the OHS to the human element in the different establishments where everything mentioned is the elements of planning, implementation and evaluation (Shawish, 2000).

The bases and rules contained in the laws and regulations can be summarized in (Arabiyat, et al, 2003):

1. Developing OHS standards in order to provide safety to man, machine and property and to protect the economy.

2. Organization of work: prepares the proper working rules and conditions to make a clean work environment free of occupational pathogen contaminants.

3. Determine daily working hours and grant breaks during work.

4. Plant site selection: the proper construction conditions and observance of the requirements you specify standards when setting up factories and choosing the right location are all factors that contribute to lower costs that result from poor design in the future.

5. Medical care: first aid, periodic examinations, and medical treatment.

6. Implementation of an accurate system of statistics. The mention of these rules and principles in laws and regulations is not enough if the administration did not formulate them inform an integrated plan to protect workers from any risks they may face.

- **Implementation of OHS Programs in Industrial Establishments**

After the completion of the planning phase of the OHS programs, it is ready for implementation so that each relevant party will fulfill the required role of implementation. There are multiple entities outside and inside the establishment to do so, including (Zweilif, 2003):

1. The Minister of Labor, who is responsible for the implementation of the provisions of the Labor Law.

2. Labor Inspector of the Ministry of Labor: Who implements all safety and health provisions. The Minister of Labor establishes a body called the Labor Inspection Authority of an appropriate number of academically and professionally qualified inspectors to follow up on the application of the provisions of the law and regulations.

3. The Committee on Labor Safety in industrial establishments formed to achieve safety and health professional within the facility.

4. The owner or manager of the industrial establishment.

5. The role of the worker himself in the implementation of OHS procedures.

- **Evaluation of OHS Programs in Industrial Establishments**

The third phase of OHS programs is to evaluate the implementation and following up of these programs, if there are deficiencies in implementation or if any defects appear, they will be addressed and avoided, especially if awareness and training in the field of OHS is not enough. There is ongoing monitoring and control by the competent authorities (from within establishment and outside) (ILO, 2019).

All this in order to ensure that the OHS instructions and rules are properly applied, to identify and report violations, conducting investigations, and then to impose appropriate penalties on violators. The ongoing follow-up and inspection process help to adhere to the rules and procedures of OHS and reveals any defects in the program, which helps to review it to address such defects. Since work accidents and injuries arise either due to errors from the worker himself or may be caused by inadequate physical working conditions (noise, heat, lighting ....), or by defects in machinery and equipment. The discovery of these inadequate conditions or those defects in appropriate time is critical to the success of OSH programs, (Zweilif, 2003).

In order to do this, it is necessary to authorize the competent authority to conduct inspections of working conditions and machinery and to discuss with the officials in the establishments with any amendments to these conditions. This inspection includes examining the premises in terms of heat and noise and accumulation of materials or goods on the factory floor and in the corridors. The inspection includes monitoring and observing the workers during their work to identify the mistakes and irregularities they commit that lead to injury and identify the extent of their application of the instructions on the prevention of accidents. The inspectors register all accidents, injuries and work-related diseases, (Labor Law No, 7, 2000).

The purpose of these records and the information that are registered is to assist the establishment in evaluating OHS programs. For more accurate information on working conditions, the direct supervisor knows and explains the working conditions that need to be addressed by preparing a report, which is submitted to the facility manager with his proposals for redesign or arrangement of machinery and service centers, and the necessary training for workers (Shawish, 2000).

It is clear that policy and working procedures for OHS are important in determining the responsibilities, duties and rights. Each person will have a good idea about his/her role in the establishment, and shall know what to do and what to report if any abnormal conditions or accidents happen. The role of outside inspection bodies is vital for collecting information on the status of OHS system in the establishment. Providing a report from an inspection visit will give a good idea to the management about what, when and where to work to improve OHS conditions.

2.1.5.3 OHS Awareness

The facility should ensure that their workers are adequately qualified, properly trained and with sufficient experience to implement OHS aspects of their duties and responsibilities. To achieve this, the facility should identify training needs and conduct training according to specific needs. Training should be done as appropriate, to the staff concerned, and conducted in a language and vocabulary that is easy for employees to understand (ILO, 2019).

Procedures and rules can only succeed if the worker is made aware of his/her importance in achieving OHS for him and for all workers in the industrial establishment. These regulations are summarized in brief phrases written on a wall board or magazine,

or published in the form of a book or manual on how to use tools, operate devices, protect organs, lift objects, transport workers, identify hazardous places, the causes of fires and explosions, and make warning signs (and first aid services) (Hanafi, 2002).

Employee's awareness can be achieved by using a variety of means, including (Hanafi, 2002):

- Lectures: It is an easy and fast way to provide a large number of people with a great deal of information, and the success of the lecture depends on the ability of the lecturer to keep the attention of employees.
- Printed publications are useful tools in providing awareness and guidance to employees, but the problem is limited to motivating individuals to read them.
- Demonstrated films: One of the best tools in the field of OHS, it facilitates the teaching of many industrial skills such as process, sequence, details and relevance.
- Competitions: Bonuses and valuable gifts are given to those who adhere to the OHS regulations.

Training plays a key role in maintaining a risk-free work environment by training workers on how to perform work in a safe manner. The training is needed in the implementation of the work in several situations like (Vredenburgh, 2002):

- When new or used individuals are transferred to a new location which requires the introduction of training programs to inform them of the correct working procedures.

- When there is a need to improve achievement in the current business it is an issue that cannot be ignored as the continuous change in the development and production process.
- When preparing trainers who undertake the preparation and training of the workforce.

Spreading information between employees in subjects related to OHS is very important, to keep employee updated, for example, inform your employees about results of the meetings of the committee on OHS, OHS program in the facility, the activity of the department of OHS. Also, information about accidents and work injuries, their causes and recommendations, the importance of safety equipment for personal protection in protecting against injuries and accidents, and awareness raising program on OHS issues. Preparation of periodicals on OHS, installing posters and pictures of OHS guidelines in all locations where workers gather (entrances - offices - work areas - workshops - stores - laboratories - cafeteria) is a creative idea. Publication of news on the statistics of accidents and work injuries and mention sections that did not had accidents and work injuries and provide gifts and incentives for them is a good idea to think twice about following rules concerning OHS. Putting pictures and indicative statements about OHS on the envelopes for salaries to be seen by all employees and workers is another way to spread awareness about OHS (ILO, 2019).

Important elements that should be included in the training program, like informing employees about emergency plans and proper disposition in emergencies. Also, places of fire extinguishers and first aid boxes along with using of various fire extinguishers and personal protective equipment. Responsibilities of the individual from the aspects of OHS with the right to report of work injuries and unsafe working conditions. Training

on first aid and potential risks in the workplace is an essential part to refresh employee's memory a period of time (Vredenburgh, 2002).

It is clear that training of workers on safe working methods makes them more aware of accidents where they can identify the places of danger and understand the consequences. The training program should be well designed with clear and applicable objectives, in way to prevent misunderstanding of rules and responsibilities. When proper awareness and training is well performed and well monitored, employees will have the power to identify, control and minimize workplace hazards.

2.1.5.4 Participation in OHS

Knowledge sharing represents a new change in behavior that makes knowledge available in an organization that needs to be absorbed and used in order to increase its value and make new changes in behavior (Mallasi, et al, 2015).

Sharing knowledge among employees is important because employees are the source of both explicit and implicit knowledge, so employees should share experiences and knowledge with other employees who need it most in order to accomplish tasks well. Furthermore, knowledge should be shared over time in the right place at the right time in order to maximize the value of knowledge (Hassan, et al, 2016).

However, sharing knowledge is not an easy task. It requires a long process of discovery and learning for individuals. Colleagues need to come together and share their knowledge to generate new knowledge values. It is the knowledge or skill that an individual possesses that cannot be easily communicated to others and is difficult to formalize and define them, because they include intellectual issues such as beliefs, thinking, and destinations. Hence, knowledge sharing is based primarily on the human element in

knowledge management. Individuals are more willing to share knowledge if they are convinced that is useful as well if they have a feeling that their knowledge is appreciated in the work environment and can share knowledge at the individual, unit, group, and other organizational levels, within or across organizations. At the individual level, knowledge sharing is referred to as talking to colleagues to help get do something better, more quickly, or more efficiently, and there are a number of studies that have examined the results of knowledge sharing among workers includes organizational learning activities and contributes to increased work productivity and promote effective performance and innovation (Chomley, 2014).

A number of motivations that encourage employees to share their knowledge and participate with others (Welschen 2014):

- **Self-efficacy**

  Self-efficacy refers to the belief within an individual of the ability to perform a specific task. Moreover, many studies have shown that self-efficacy is one of the best motivators for individuals and helps them understand why they tend to share knowledge, and self-efficacy is a type of self-assessment that can influence the behaviors that should be used.

- **Verbal Rewards**

  The concept of non-monetary incentives are self-motivated and moral incentives that encourage an individual to engage in a social relationship to perform a specific task for others. Welschen (2014) shows that a number of studies have indicated that verbal incentives may be a catalyst for knowledge sharing. And verbal incentives such as praising or commenting on behavior, and incentives that

can tell other employees how they did or if they did well. It can help increase feelings of efficiency and self-confidence, it is said that the praise and words of thanks of the superiors are seen as catalysts for knowledge sharing and participating.

- **Tangible Rewards**

  Tangible rewards are a key factor affecting participating. Examples of tangible rewards are increases in wages, bonuses, promotion opportunities, and job security (Welschen 2014).

- **Reputation**

  Building and maintaining a good reputation requires a long-term commitment, when individuals found that sharing knowledge can enhance their reputation, this may change their attitude towards sharing knowledge in a positive way. Reputations are not something that can be obtained from one day to another. Individuals who are aware of this may be more likely to engage in knowledge sharing in the long term and this may require a permanent change in attitude (Hall, 2001).

It is clear that employees who believe they can improve their relationships with other members of the organization by sharing their knowledge will have a more positive attitude towards knowledge sharing and participating. Workers should be encouraged to participate in the decision-making process in relation to OHS in the workplace and consult, if necessary, when making decisions or making a change in OHS at the workplace or when communicating relevant OHS information. The facility should establish a working group or a joint committee of workers and the employer in the area

of OHS to meet on a regular basis. Also, the facility should encourage employees to participate proactively in any suggestions / ideas / opinions they may have regarding safety and health in the workplace.

2.2 Job Satisfaction

2.2.1 Overview

Job satisfaction is an important subject for researchers and scholars. It started in industrial sector, where organizational success depended on the effectiveness of workers in performing their tasks.

Companies should focus on employee satisfaction, as it is related to the effectiveness and efficiency of the organization. (Bigliardi et al., 2012). Higher rates in productivity and improving mental and physical health were recognized in satisfied employees.

2.2.2 History of Job Satisfaction

The beginnings of attention to the subject of job satisfaction and its impact on the behavior of individuals started in the beginning of the twentieth century, and the first attempt is Taylor's attempt through the theory of scientific management (Scientific Management Theory). The founder of this theory is the first to think in practice to explain the behavior of the worker in the organization and how to stimulate it. However, the aim was not to improve the social conditions of the individual, increase salary, provide individual freedom and democratic management in the organization, but rather to discuss the problems of productivity and how to raise the productivity of the working individual. In order to be able to give maximum production capacity, the management must take care of its work training and monitor it with supervisors, while physically stimulating it and punishing if it fails to produce the required quantity (E'mayyan, 2005).

Frederick Taylor advanced the scientific management at the start of the 20th century as a manner to make work management more efficient. The main assumption of motivation is that working individuals are willing to work hard to obtain financial rewards (Al-Adaily, 1981). This administration was unable to achieve the desired satisfaction of workers and was taken to neglect the humanitarian aspects in the lives of workers, but it drew attention to the human element in the work and to their abilities and rehabilitation and motivate them to work.

While the subject of job satisfaction has already emerged in the industrial field, it has gained special importance in the field of education, due to the fact that humans are the most crucial inputs, and they're additionally the most essential outputs. During this period, movement of human relations emerged that took care of the humanitarian side and the pioneers of this movement are Elton May and his colleagues. This movement stated that non-material rewards and incentives play a major role in motivating and satisfying individuals. The size of the individual's work and the level of productivity are determined not only by his/her physiological capacity, but by the will and social background of the community. This school has identified the impact of employee morale and labor relations on their productivity (Haydar, 2005). This theory calls for the need to understand the nature and behavior of workers and their tendencies and desires to create joint cooperation between them and the administration to achieve common goals (Zuwilif, 2005).

In 1935, Hobok studied job satisfaction for small factory workers in a village in Pennsylvania, USA, where he measured employee's satisfaction and examined elements affecting job satisfaction, which includes operating conditions, supervision and

fulfillment using the survey approach. This study is the first focused on study of job satisfaction, and the starting point for all job satisfaction studies (Haydar, 2005).

It is believed that the starting attention to job satisfaction was totally to improve mass production and not considering anything else. This was improved to include the humanitarian aspects after developing the human rights movements that considered the human is the most valuable element in the production system.

2.2.3 Job Satisfaction Concept

The concept of job satisfaction is old, especially in our Islamic heritage, as it is mentioned in the Holy Qur'an. The Islamic heritage, (Al-Mishaan, 1993) states that satisfaction is the fruit of effort in this world and the purpose of life, which is one of the highest sanctuaries of the closest and the most beneficent within the work and rewards. The mutual satisfaction between the Creator and the creature is the great victory. Satisfaction as some of the lexicons of language refers to: against indignation, and wanted: see him welcome, He was pleased with him: I love him and accept him (Ibn Manzour, 1956).

There are many common terms used to express the psychological feelings felt by the individual towards his/her work, there is the term morale and there is the term psychological trend towards work. These terms varied in the word and differed in the details of the implications. It generally refers to the sum of the sentimental feelings felt by the individual towards the work s/he occupies.

The concept of job satisfaction is multifaceted, and is influenced by factors that are due to the same work, while others are related to the work group and environment. It is wrong to believe that if an individual's satisfaction with a particular aspect of his/her work

increases, this means that he is necessarily satisfied with the other aspects of the job and its dimensions. Satisfaction is the outcome of the interaction between what the individual wants and what s/he actually gets in a particular situation (Haydar, 2005)

Both Landy and Trumbo in 1980 noted that job satisfaction is used to denote workers' feelings about work (Al-Adaily, 1981). In Locke's view, the question of job satisfaction or dissatisfaction is the result of what one sees as a relationship between what s/he wants to achieve from the job he occupies and what s/he is actually expected to get from this job (Al-Adaily, 1981). Hoppoc points out that the question of job satisfaction is a set of concerns about the psychological, physical and environmental conditions that make one say truthfully: "I am satisfied with my job" (Al-Adaily, 1981).

The degree of satisfaction with work in the former sense represents implicit or explicit behavior that lies in the individual's well-being. These feelings may remain latent in the same individual and may appear in outward appearance. Individuals vary in the degree to which their underlying psychological orientation reflects their external behavior (Shawish, 2004).

Job satisfaction is the expression of workers towards their work, and these feelings depend on two basic dimensions: what workers think that work tends to them to what is, and what workers aspire to achieve from their jobs (Nimer, 1993).

It is clear that job satisfaction is mainly focused on the feeling of the worker toward his job and what this job can afford. This offering by the work is not only restricted to the financial condition, psychological, physical and environmental conditions are also important to worker to be satisfied.

2.2.4 Job Satisfaction Definitions

There are many definitions for job satisfaction in the literature, these definitions are illustrated in Table 2.

Table 2: Definitions of Job Satisfaction

No	Author	Definition
1.	(Mostot, 1988)	Degree of happiness or unhappiness of an individual towards job or career experience.
2.	(Abu Hantash, 1989)	The feelings of workers towards their work, and that they result from their awareness of what the job offers them and what they should get from their jobs.
3.	(Aghbari, 2002)	Reflecting the level of equilibrium in positive and negative feelings towards work in its various dimensions such as salary, working conditions, relationship with presidents and colleagues, opportunities for career advancement and professional growth.
4.	(Abdulbaqi, 2005)	Satisfaction represents the saturation that the individual receives from the various sources that are connected in his perception of the job he occupies.
5.	(Alsharaidieh, 2010)	The physiological feeling of happiness and relief that provides the employee from his career physical needs, moral, stability, and chances for advancement.
6.	McShane, et al., 2010)	Evaluate the characteristics and the working environment, as well as emotional experiences in the workplace.
7.	(Luthans, 2011)	As a result of employees' awareness of the availability of things they consider important on their work.
8.	(Aydogdu, et al., 2011)	Positive feeling about an individual's job as a result of assessing their characteristics.
9.	(Alhariri, 2012)	The view of working individuals about their acceptance and approval of the work they do.
10.	(Robbins, et al., 2013)	They describe the positive feeling about the job, which results from the process of evaluating their properties.
11.	(Maher, 2013)	Represents the mental attitudes of personnel, and their pleasure and happiness in the direction of their work.
12.	(Arab Training and Publishing Group, 2014)	The psychological sense of satisfaction and happiness to satisfy the needs and desires and expectations with the work itself and the content of the work environment and a sense of trust and loyalty and belonging to work.
13.	(Uhl-Bien, et al., 2014)	A position that reflects one's positive and negative feelings towards work, co-workers, and the working environment.

It is clear from the previous definitions that researchers differed in defining job satisfaction. It is believed that these differences are due to the development of human needs. The definitions started with basic needs like happiness and feelings. Later on, when these needs are fulfilled, workers started searching for the higher level of needs, terms like working environment and awareness appeared in the definitions to describe the next level of needs. When working environment and awareness are fulfilled, the next level of needs will reveal another higher level of demands.

2.2.5 The Importance of Job Satisfaction

The human factor is one of the most important factors affecting the productivity of labor.

Several studies in the field of job satisfaction have shown that high employee satisfaction often increases productivity, reduces turnover, reduces absenteeism, raises employee morale, and makes life more meaningful in individuals. Al-Mishaan, (1993), Alhunaiti, (2000) and Albadrani, (2008), explained the importance of job satisfaction by identifying a number of reasons:

1.The more of job satisfaction the more of ambition among employees.

2.The high level of job satisfaction leads to a low rate of absence of workers in various professional institutions.

3.An individual with a high degree of job satisfaction is more satisfied with his/her leisure time, especially with his/her family, as well as more satisfied with life in general.

4.Less work accidents between employees who are more satisfied with their work.

5. Productivity at work is related to job satisfaction. The higher the degree of job satisfaction, the greater the productivity.

Salloum (2002) pointed out that the study of job satisfaction is of great importance to the administration through the study of job satisfaction that recognizes the feelings of individuals and their multiple attitudes towards the various aspects of the administrative process, and thus identify deficiencies and try to avoid them. It is also important to identify the problems that concern workers to develop appropriate solutions that ensure the organization progress and increase productivity.

Career or professional satisfaction, as stated by Bdeiwi (2007) is one of the subjects that should remain the subject of research and study from time to time among leaders and supervisors of departments and those interested in development at work. Job satisfaction is one of the important factors in achieving the security, mental, intellectual and functional stability of individuals working at various levels of management, voluntarily pushing them to increase production, which is ultimately what the organization seeks regardless of the nature of its activity (Aghbari, 2002).

It is concluded that human behavior within institutions represents a common interest between management sciences and human science. Developed countries should be more concerned about job satisfaction because of its direct impact on the progress and development of society. Job satisfaction is only a synthesis of the psychological and environmental conditions that surround the employee's relationship with his colleagues and superiors and is consistent with his personality, which makes him say honestly, I am happy with my work. (Bdeiwi, 2007).

2.2.6 Job Satisfaction Theories

There are many theories that explain the phenomenon of job satisfaction or dissatisfaction. Salloum (2002) states that both job satisfaction, motivations and incentives are practical and overlapping because of their association with the workers feelings, tendencies and expectations.

2.2.6.1 Maslow's Hierarchy of Human Needs (1943-1954)

Psychologist Abraham Maslow explained behavior on the basis of his/her needs. According to this theory, unsaturated needs become the main determinant of individual behavior until satisfied. They lead to imbalance and lead to behavior that reduces this state of tension and reinstates internal balance and physiology and the tension will not be removed unless satisfied by the need (Maslow, 1943).

The important needs at any given time are those that are unsaturated and no one can live up to satisfying other needs except by satisfying the most important needs, and then the least important according to the hierarchy. For example, the lack of satisfaction of the physiological minimum needs makes them more important than the higher needs until they are satisfied. The individual rises on the ladder of needs to satisfy the needs according to their sequence (Al-Mishaan, 1993). Maslow divided humanitarian needs into five levels shown in Figure 2.

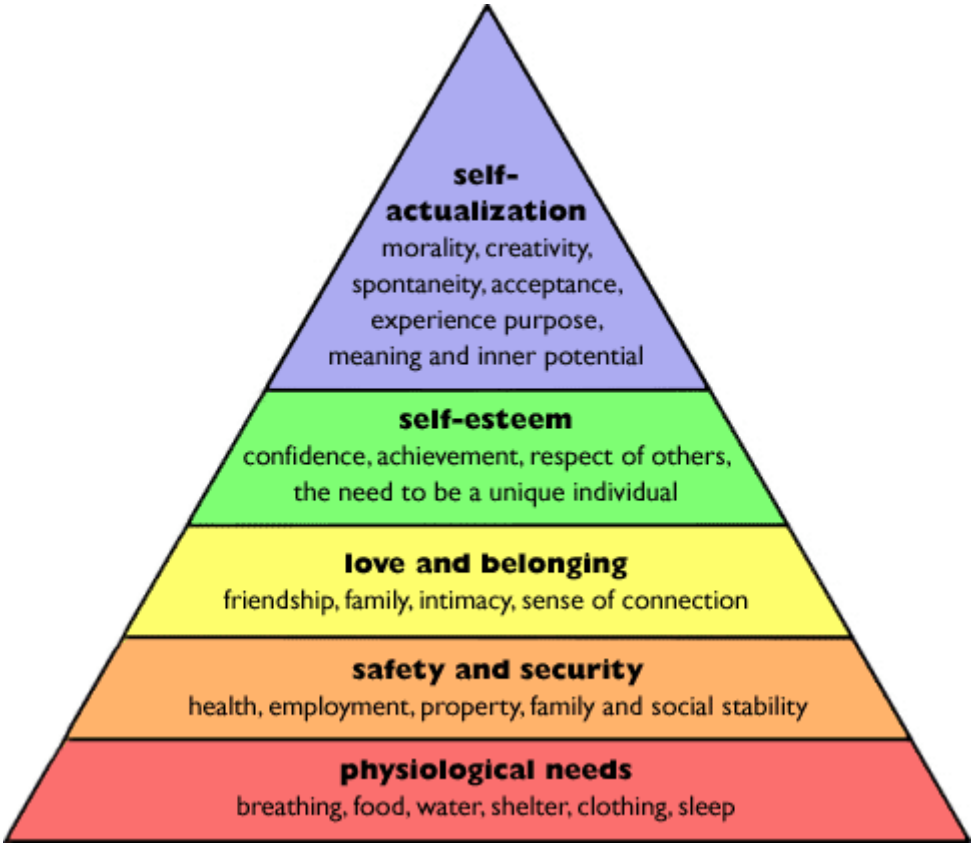

Figure 2: The Five Basic Human Needs. Source: (Maslow, 1943)

The above diagram shows that there are five levels of needs:

1. Basic physiological needs (sometimes called physiological or organic needs) such as food, drink, housing, and rest, which are the least organized of human needs.

2. The need for security and safety (safety needs) which are related to the protection of the individual from physical and psychological harm or to ensure income.

Zuwilif (2005) believes that there are three pillars on which the workers' sense of security is based on:

- The location of the heads of the workers and their mental attitude toward the, the person does now not feel safe if s/he did not longer meet his/her effort and interest with the approval of his /her superiors and supervisors.

- The individual's knowledge of what s/he is meant to know, such as his/her knowledge of the regulations and regulations of the organization, the chances of progress in the work, and the degree of acceptance. Therefore, the development of this is done by defining the terms of reference and duties so that the individual can know what s/he wants instead of being left to ambiguity.

- The stability of reward and punishment systems.

3. Social needs or the want for belonging: Belonging desires represents the want for the participation of others, social interplay and the need for friendship, love, affection and acceptance of others. Social desires are the start line for better needs and away from primary needs (E'mayyan, 2005)

4. The need for respect and self-esteem: Esteem desires as a need for appreciate and popularity from others and distinction from them, Maslow says that this need comes after gratifying the three preceding needs (Salim, et al., 1995).

5. The need for self-actualization is the need to achieve the goals and aspirations that an individual desire for life, and this is the highest level of Maslow's hierarchy of needs. (Al-Adaily, 1981). This hierarchy or hierarchy of needs is based on two basic assumptions: Unsatisfied need is driving behavior. When the need is met, it will not return to behavior, so the higher needs of most people are the least satisfying compared to the minimum needs (Salamih, 2003).

The core of Maslow's theory does not depend on its classification of the types of needs (motivations) of the individual but depends on the order of these needs according to the concern of that person. Although this theory does not clearly and fully explain human

motivation, its contribution is clear and fundamental and is the starting point in understanding motivation in individuals (Salim, et al., 1995).

It is believed that Maslow's theory was inconceivable in that an individual produce and does not satisfy the need for belonging, as long as his physical needs and the need for safety are not yet satisfied. Although Maslow's Hierarchy of Needs model is universal to all individuals in all circumstances and times, this step-by-step pyramid may vary from individual to individual and from time to time. Moreover, Maslow's theory didn't answer some questions like: What kind of behavior is associated with each of the needs suggested by him? And how to satisfy a need (or needs) that are not already present in the pyramid?

2.2.6.2 Herzberg Two Factor Theory (1959)

This theory is called the theory of 2 factors and is one of the most important theories that treated the challenges of motivation and its effect on job satisfaction. It has successfully contributed to clarifying the connection between job satisfaction and productivity. Where he and his colleagues conducted their studies on 200 engineers and accountants in the United States, to identify the motivation of employees and their degree of job satisfaction. The achievement of job satisfaction and non-achievement of workers is linked to motivations or driving factors, which are the needs that drive the individual to provide more and more activity and therefore its presence in the organization has a positive impact. Some of these factors are less satisfactory but do not lead to dissatisfaction, which prevents dissatisfaction (E'mayyan, 2005).

Other external factors have been called protective factors, as they relate to the working environment and circumstances, the social situation, the relationship with colleagues,

bosses, salaries and guarantees at work, job security, supervision and career status, and the absence of these factors causes job dissatisfaction with the individual (Zuwilif, 2005).

It is believed that adopting the interview method which is based on remembering the critical events, and conducting the study on a limited category of accountants and engineers is not representative. Also, Herzberg reduced the importance of salary or wage in the effect of the motivation and he focused on satisfaction and not motivation.

2.2.6.3 McClelland's Needs Theory (Achievement Theory)

Developed by David McClelland in 1967, and is based on clinical psychology and personality theory, and has been applied in the field of management and economic development. McClelland and his group have conducted multicultural studies involving the United States, Italy, Poland and India to identify the following characteristics of individual's needs: (Al-Adaily, 1981).

1) Need for Achievement:

This theory believes that individuals who have a strong need for achievement have the motivation to excel and fight for success simply to achieve success regardless the material return. This group of individuals is psychologically interested in doing better, developing work, wanting to challenge and doing difficult tasks in order to achieve the desired goals.

2) Need for Power:

The power, control and supervision of others is a social need that makes the individual take the path that gives him/her the opportunity to gain power and influence the behavior of others and individuals who have a strong need for power seeing the organization as an

opportunity to have power and exercise control and influence others. According to E'mayyan (2005), there are five sources of power:

A) The strength to give a reward (the ability to reward others).

B) Forced force (the ability to punish others for not obeying orders or failing to accomplish what is required of them).

C) Legitimate power (the legal authority in determining the conduct to be followed by others).

D) The strength of admiration (based on the availability of personality traits of the person who has the power).

E) The strength of expertise (based on having special knowledge in a particular field or subject).

3)Need for Affiliation:

It is the need to build friendship and contact with others. People satisfy this need through friendship, love, social relationships and communication with others. Individuals who have a strong need to belong see the organization as an opportunity to satisfy new friendships, and they push for collective tasks that require participation with co-workers.

It is believed that McClelland's Needs Theory determined the needs of each individual on a specific scale, which is subjective and influenced by the personality of the researcher. His vision of adult training to promote the idea of achievement is uncertain to psychologists. There are things that arise with the child from a young age and are difficult to change late.

2.2.6.4 Theory of Expectation

This theory was developed by Viktor Vroom in 1964. It explains how one chooses a particular behavior. The individual's motivation depends on his/her expectations as follow: (Alaqi, 1981).

First expectation: The effort will lead to the required achievement.

Second expectation: The desired achievement will achieve the desired reward by the individual, which in turn satisfy his/her needs and thus satisfaction this means that the individual will not behave in a manner that is expected to be low, nor will s/he chooses behavior achieving a reward that does not satisfy his/her needs. Therefore, stimulating the individual to do something depends on the strength of desire and expectation as shown in the following equation:

Motivation = individual's desire × expectation

The theory has been criticized several times for the following reasons:

1.The theory did not explain how individuals differ in their assessment of the expectations and the importance of those expectations.

2.Ignored the difference of individuals in determining the number and quality of the results they seek to achieve before taking decisions.

3.The theory ignored psychological factors related to the behavior of the individual as a role of feeling and emotions.

4.Ignored the influence of the subconscious in stimulating individuals to take certain actions.

It is believed that this theory faces some problems like the difficulty of measuring the expectation and the benefit of behavior. The multiplicity and complexity of the variables involved in this theory makes it is difficult to study, control and to know the extent of the relationship between these variables and their overlap with each other, which puts difficulties on the interpretation of human motives in a clear and specific way.

2.2.6.5 Porter and Loller Model

In 1968, Porter and Loller developed the Fromm model, which linked satisfaction with both achievement and return. Under this model, the satisfaction of the individual is determined by the extent to which the actual returns converge with the returns that the individual believes to be fair and consistent with the achievement or effort. If the actual returns for completion are equal to or greater than the returns that the individual believes to be fair, the satisfaction achieved will force the person to repeat it. If those returns are less than what the individual thinks s/he deserves, there will be dissatisfaction and the motivation to continue the effort. (Iancu et al, 2015)

Therefore, Porter's and Loller's main point to Vroom's theory is that their model includes that the continuity of performance depends on the conviction and satisfaction of the worker, and that satisfaction and conviction are determined by the degree of convergence between the actual returns obtained and what the individual believes. Porter and Loller explained that there are two types of returns: Self-return: It is felt by the individual when achieving high achievement, and this saturation of the higher needs of the individual. External returns: They are obtained by the individual from the organization to satisfy his/her minimum needs such as promotion, wages and job security The Porter and Loller models illustrate the overlap between motivation, achievement, gratification and

satisfaction. This means that administrators need to recognize that the objectives of the subordinates are difficult and consistent with their abilities and skills. (Iancu, et al. 2015).

It is believed that human behavior is significantly influenced by the degree and level of individual expectations of what will be achieved by future work, and this theory focused on some practical aspects of motivation to work, and helps to achieve satisfaction levels.

2.2.6.6 Equity Theory

Stacey Adams's theory in 1963 is based on relationship between job satisfaction and justice, assumes that the degree of the worker's sense of fairness of the reward and motivation of his/her work determines the degree of his/her satisfaction, which affects the level of productivity and performance (Eweida, 2008).

Behavior is the process of recognizing the relationship between evaluation and comparison. When a person realizes that the situation is fair, s/he responds positively. On the contrary, if s/he feels that the situation is unfair, it reinforces the equality between the two. This quest for re-equality is used to explain the motivation of action, and the strength of motivation is proportional to the magnitude of perceived equality (Rawia, 2004).

It is believed that people tend to overestimate their efforts and over-estimate others' returns, creating the tendency of individuals to feel unequal. In contrast, this theory is characterized by concern for the group and its effects, understanding of the individual, as well as calling for finding different ways and means to make the individual feel the fairness of management with him/her and also focuses on monetary incentives because they are easy to measure and feel.

2.2.6.7 Value Theory

In 1980, Landy and Trumbo explained Luke's theory of job satisfaction. In this theory, Locke argues that job satisfaction is a pleasant emotional state resulting from the individual's perception that his/her work enables him/her to achieve values that are important. This means that Locke distinguishes between value and need, and considers the needs as elements that guarantee the biological survival of the individual and also considers them to exist in themselves objectively isolated from the wishes of the individual. While values are intrinsic, representing what the individual desires, whether consciously or unconsciously (Al-Adaily, 1981).

Landy believes that job satisfaction comes within the framework of emotional feelings and that there are factors that lead the individual to resist emotional feelings in order to maintain self-balance and this leads the individual to achieve satisfaction by resisting feelings of dissatisfaction. Landy shows that this self-sustaining factor maintains equilibrium by resisting excessive emotional feelings, whether negative or positive, because it is considered an abnormal condition that may hurt the individual. Landy asserts that this self-agent is one of the central functions of the nervous system. This protection function is also responsible for varying levels of job satisfaction among individuals (Alharbi, 1994).

It is believed that Luke's theory did not limit the elements that make the human resource feel job satisfaction, which contradicts with Maslow, Harrisburg and Loller, who have limited the elements that lead to this feeling.

2.2.7 Factors Affecting Job Satisfaction

The literature states many factors that affect job satisfaction. Salamih (1999) stated that job satisfaction is affected by:

1.Personal factors such as age, level of education, importance of work for the worker, administrative level of the job, health status, temperament and personality traits, all of which have a significant impact on raising the individual's satisfaction.

2.Factors related to working conditions: such as the type of work, the nature of his or her job or profession as a routine or diversified, innovative or normal, security, progress in employment, remuneration and salary, the president and co-workers and working hours.

It is noted that it is difficult for management to control personal factors in an attempt to raise the level of job satisfaction of individuals. A strong positive correlation between salary and job satisfaction, as well as the relations between the president and colleagues and supervisors and the satisfaction of the job is noticed in some studies. The department can play an important role in modifying these factors or some of them in order to increase satisfaction the functional workers (Shawish, 2004).

Nimer (1993) stated that the most important factors that lead to satisfaction with work are:

Salary, upgrade, security, respect and appreciation, working groups, supervision style, freedom available at work, allowances and bonuses.

Khattab (1998) and Al-Ruwaili (2012) stated that job satisfaction is affected by internal or individual factors, job content, performance factors, and achievement levels by individual and organizational factors.

The factors that affect job satisfaction are many and varied. Some are related to the level of work and its requirements; others are related to the personality of the worker. Some of them are concerned with the social aspects of the profession, as well as the system of relations between colleagues and presidents and other conditions associated with the work (Al-Mishaan, 1993).

In this study, the effect of applying OHS regulations on job satisfaction between employees in the pharmaceuticals industry in Ramallah and Al-Bireh district was investigated. Previous studies that measured the satisfaction degree and its relationship with OHS regulations in facilities showed that increasing the OHS regulations, will affect the job satisfaction. Ewaiwi, (2008) concluded that providing a safe working environment, safety tools at work, and the presence of a training and awareness programs of OHS will lead to job satisfaction.

2.2.8. Job Satisfaction Types

Since job satisfaction is the feeling of psychological satisfaction in the work environment, whether it is directed toward co-workers, work content or working conditions, and since there are also differences in the degree of job satisfaction during the career, we can divide the satisfaction into several types (Al-Ruwaili, 2002).

1. Types of job satisfaction as a comprehensive:

- Internal job satisfaction: It relates to the (subjective) aspects of the employee such as recognition and appreciation acceptance, achievement and self-expression.

- External Job Satisfaction: It concerns the external (environmental) aspects of the employee in the work environment such as: manager, co-workers, nature and pattern of work.

2. Types of job satisfaction considering its time:

- Expected Job Satisfaction: An employee feels this type through the functioning process if he or she anticipates that his or her effort is rewarded with the task.
- Actual job satisfaction: The employee feels this type of satisfaction after the stage of job satisfaction expected, when it achieves the goal then feel the satisfaction of the job

2.2.9. Job Satisfaction Measurement

Since job satisfaction represents feelings where the ability to recognize and access them is not easy. Job satisfaction measures have benefited from advances in psychology in terms of methods of studying personality, attitudes and other psychological aspects. The extent to which it is effective differs from the accuracy and comprehensiveness of these measures.

There are two types of job satisfaction measures (Al-Ruwaili, 2002):

A. Objective measures: This type measures satisfaction through its behavioral effects such as absence and leaving service, and this type of measure is objectively significant for alerting to problems of individual satisfaction but does not provide detailed data to identify the causes of these problems or indicate possible treatment methods.

B. Self-metrics: This type of satisfaction is measured directly, but in self-assessment methods, by asking individuals about their feelings about the different aspects of the work, or about the extent to which the work satisfies their needs. This type of measure is more useful in diagnosing the causes of satisfaction or dissatisfaction. This measure includes scale face painting, one of the oldest methods, the direct observation of the behavior of employees, method of interviews, method of the analysis of phenomena, method of survey lists carefully prepared to measure job satisfaction and the most popular job satisfaction surveys. The Texas Scale of Job Satisfaction, the Minnesota Job Satisfaction Index and Job Description List.

2.3 International and Palestinian Regulations of OHS

2.3.1 Overview

The International Labor Organization (ILO) has drawn up 16 international conventions on OHS, and the ILO constituents (governments, employers and workers) have developed more than 40 standards (convention / recommendation). The total number of OHS agreements ratified in the Arab countries, including the basic OHS Conventions and Information on ILO Conventions ratified by the ILOLEX database has been collected. Egypt and Iraq are the two countries that have ratified the largest number of agreements (63 and 61 respectively), while Lebanon has ratified the largest number of OHS agreements, Oman and Qatar have the least number of OHS agreements (ILO, 2019).

2.3.2 International Regulations of OHS

Most of the regulations adopted by the International Labor Conference address technical problems related to the conditions of prevention of work accidents and diseases.

These regulations take into account technological and scientific developments as well as the evolution of organizational practices within the enterprise. Its provisions contain binding and precise obligations, some of these conventions and technical recommendations are of particular importance to the developing countries. The most important is the Convention on the Prevention of Major Industrial Accidents No. 175, Chemical Safety Convention No. 170, and OHS Convention in constructions No. 167, Occupational Health Services Convention No. 161, and the OHS Convention No. 155. (ILO, 2019).

In addition, the OHS Promotion Framework No. 187 was established in 2006 in an effort to develop systematic means of implementing conventions, recommendations and codes of practice. Convention No. 187, together with the ILO's strategy on OHS, aims to reduce occupational diseases and accidents and is part of the ILO agenda. Other OHS Conventions include protection against certain risks and health safety, especially in economic sectors. (ILO, 2019).

No Arab countries have ratified ILO Conventions Nos. 155, 161 and 187, with the exception of Algeria, which ratified Convention No. 155 in 2006. The main reason for not ratifying Convention No. 155 is inconsistent with certain aspects of legislation in some countries, such as Kuwait, Morocco, Qatar, Saudi Arabia, Syria and the UAE. It is also noted that in some countries, the labor law does not cover certain economic sectors, such as the public sector, makes it possible to exclude certain economic sectors or special categories of workers as long as countries have justified these exceptions. In Bahrain, Egypt, Lebanon, Libya, and Sudan, the agreement is still awaiting ratification and is currently under consideration in an attempt to reconcile its content with the content of domestic legislation, a process that takes time. This process will not come to an end in

the absence of political will to deal with it, i.e., to set targets and deadlines for adapting legislation to the provisions of ILO conventions on OHS in a tripartite framework. (ILO, 2019).

Some countries, such as Yemen and Syria, indicated their lack of financial capacity, human resources and technical tools in laboratories of the working environment in the area of OHS, it again appears that the issue is not an important priority in these countries. Ratification of Convention No. 161 obstacles focuses mainly on legislative considerations in Kuwait, Morocco, Qatar, Syria, Saudi Arabia and the UAE, and the shortage of human and financial resources in Syria and Yemen, which are under study in Lebanon and Sudan. (ILO, 2019).

In Algeria, the process of ratification of the Convention has been delayed pending a new and fair labor law to facilitate the process. However, Convention No. 161 recognizes a progressive development in occupational health services, and the legislative argument becomes flimsy. The main reason why most countries did not ratify Convention No. 187 is that they are still recent, adopted in 2006. This Convention is being considered for ratification in Egypt, Lebanon, Oman, Qatar, Sudan and Yemen, which are considering and planning to ratify it. The reason for the non-ratification of the Convention in Bahrain and Oman is that they have not ratified Conventions Nos. 155 and 162. However, Convention No. 187 alone can be ratified because it is a "promotional instrument" that reinforces all ILO conventions on OHS. (ILO, 2019).

2.3.3 Summary of Laws and Regulations Related to OHS in Palestine

In the Palestinian Basic Law for the year 2005, article No 25, focuses on that labor is the right of every citizen, a duty and an honor that the Palestinian Authority provide to

all. Furthermore, paragraph 2 stressed the importance of organizing labor relations with justice for all and provide workers with care, security, health and social care (Palestinian Basic Law, 2005, article No 25).

The Palestinian Labor Law No. 7 of 2000, article 90 states that upon the proposal of the Minister in coordination with the competent authorities, the Council of Ministers shall issue the regulations concerning OHS and the working environment, including in particular the means of personal protection and prevention of workers from work hazards and occupational diseases. Also, health conditions in the workplace, medical ambulances for workers in the facility and periodic medical examination of workers (Palestinian Labor Law No. 7, 2000, article 90).

In addition, Article 91 focused on instructions for safety and occupational health and the sanctions regulations shall be issued by the establishment thereof approved by the Ministry of labor. These instructions shall be attached to places visible in the establishment. (Palestinian Labor Law No. 7, 2000, article 91).

No facility may charge the worker any expenses or deductions from his/her wage in return for the provision of OHS conditions. (Palestinian Labor Law No. 7, 2000, article 92).

The civil defense Law No. (3), for the year 1998, article 16 states that the Minister may issue the decisions and orders of the procedures to be taken by the Civil Defense Committees. These decisions and orders for measures to be taken by the owners of institutes for education and physical sport, and the meeting of associations and hospitals, cinemas, amusement parks and public shops for trade and industry, which need to consider the nature of work or use of special protection. Issuing orders, if necessary, by

temporarily appropriating the real estate and buildings required for the preparation of public shelters, hospitals, public welfare centers and all other civil defense matters, and compensating the owner for any damages that s/he may suffer. The establishment of teams of civilians from the staff of the National Authority and others to train on the work of civil defense in their spare time with the intention to participate in the work of civil defense and to cope with the disasters provided for in this law. Also, the adoption of experiments and exercises on the work of civil defense to ensure the efficiency of measures and preparations of civil defense (Civil Defense Law No. (3), 1998, article 16)

The Municipal and Rural Councils shall be allocated by the Civil Defense Committees an annual financial sanction which enables them to carry out their duties. Such accreditation shall be determined annually by a decision of the Minister in the light of the recommendations of the Civil Defense Committees. The realtors and buildings referred to in Article (16) Section (2) of the Law shall, at their own expense and on the dates fixed for them, carry out the works imposed on these properties and buildings for the purposes of civil defense. If the real estate owners, buildings or occupants do not implement the procedures and actions imposed on them for the purposes of civil defense, the Directorate General of the Civil Defense shall carry out these actions and procedures at their expense and shall receive such expenses in the manner in which public funds are obtained. Building permits issued under any law or regulation relating to the regulation of cities and buildings are required to provide that the licensee must comply with civil defense requirements and prepare special places suitable for shelters if needed (Civil Defense Law No. (3), 1998, article 16, section 2).

In addition, Health Law No. (20) For the year 2004, article 32 states that the Ministry shall establish in coordination with the concerned authorities the conditions necessary

for the provision of OHS and the method for continuous inspection (Health Law No. (20, 2004, article 32).

In Article 20 in the Environmental Quality Authority Law No. 7 of 1999, the owner of the establishment shall provide the necessary protection for the workers and neighbors of the establishment in compliance with occupational safety and health conditions against any leakage or emission of any hazard inside or outside the workplace. When operating any machinery or equipment, use of alarms, loudspeakers, or any other activity, all parties and individuals shall not exceed the limits for sound and vibration (Environmental Quality Authority Law No. (7), 1999, article 20).

In the Decision of the Council of Ministers No. 25 of 2010, article 17 states that there must be noise reduction devices resulting from equipment or any activity within the facility, and providing OHS tools for workers and visitors. Development of guidance signals and risk warning with health units and drinking water, suitable places to eat, and changing places of clothing separate from one another are required. Fire extinguishers, corridors for transport and emergency exits and adequate natural and industrial lighting for proper ventilation must be provided in the facility (Decision of the Council of Ministers No. 25, 2010, article 17).

In the Decision of the Council of Ministers No. (9) For the year 2012, article 39 states that each pesticide to be imported shall be labeled with its explanatory card (in Arabic) and in accordance with the conditions established by the Committee (Decision of the Council of Ministers No. (9), 2012, article 39)

The General Directorate shall directly carry out the work and procedures of supervision, inspection and follow-up of any process of agricultural pesticide trade on a regular or

sudden basis within its competence to control any violations and take the necessary action, with the right to Confiscate of the sale of agricultural pesticides in violation of the provisions of this Law. Notify the agents 90 days before the expiry date of the agricultural pesticides and compel them to withdraw them within a period not exceeding 30 days from the markets and to collect them in their warehouses to be disposed of at their own expense under the supervision of the General Directorate (Decision of the Council of Ministers No. (9), 2012, article 39)

The General Administration shall be entitled to take samples of agricultural pesticides stored in the warehouses of importing companies, agricultural pesticides for sale in licensed shops or exhibitions, and agricultural pesticides produced or processed in factories for analysis at the Ministry's laboratories or any other laboratory it deems fit to ensure compliance with specifications or of the technical rules. The factory shall have sufficient personal protective equipment for its personnel and the following first aid kits (Decision of the Council of Ministers No. (9), 2012, article 39):

1. Protective work clothes and rubber boots.

2. Cloth covers for hair, head, goggles and full-face mask.

3. Complete respirators and accessories with special filters for pesticides and chemicals are subject to change.

4. Suitable rubber or plastic gloves of long type covering forearms.

5. Work shoes made of material suitable for pesticide industry.

6. First aid box in each building or separate hall containing all materials needed for general first aid and pesticides.

7. Means of washing the eyes when exposed to a pollution incident.

8. Manual printed with the requirements of proper handling with raw materials and products. The workers in the factory and the end user of these materials are supplied with warning signs and include these requirements attached in prominent places inside the rooms and production halls.

Article 66 states that it is prohibited to transport agricultural pesticides from one place to another except within safe means that do not allow for spills or dispersions. Agricultural pesticides shall be transported with designated vehicles, and shall not be placed near the driver's place of residence. The pesticide transport vehicle shall contain all necessary safety and ambulance requirements. The transfer of pesticides shall not be permitted with food, feed or goods of human use. Transport the pesticides in their sealed original packaging and comply with the conditions of trading in Palestine (Decision of the Council of Ministers No. (9), 2012, article 66).

The Decision of the Council of Ministers No. (12) for the year 2016 on the system of poultry farms includes a collection of materials mentioned in article 5 states that It is not permissible to establish poultry farms or occupy any residential buildings within the boundaries of the local councils' structural plan. A poultry farm may be set up within the limits of the ground on which the hatchery shall be located at a distance not less than 100 meters from the nearest establishment of the hatchery. It shall be completely separate from it and have a separate entrance provided that the hatchery meets the conditions originally established for the poultry hatchery system. It is prohibited to set up a poultry farm next to another poultry farm unless it is 100 meters or more away from it. As for the mother farms, it must not be less than one kilometer away from them. 500 m or more.

It is not permitted to establish a poultry farm next to another farm or any farm for raising poultry or other animals unless a distance of one kilometer or more (Decision of the Council of Ministers No. (12), 2016, article 5).

The management of poultry farms shall conduct medical analysis and examinations for all employees according to Article 13 to ensure that they are free of salmonella, communicable diseases and infectious diseases at least once a year and maintain their records. Cleaning and providing the safety and prevention procedures stipulated in the instructions (Decision of the Council of Ministers No. (12), 2016, article 13).

2.4 OHS Administrative System (OHSAS)

2.4.1 Overview

It is normal and expected that each organization will assume its responsibilities in ensuring the safety of workers in the workplace, as well as reducing the risk of damage to other parties that may be affected by the organization. On the other hand, organizations that do not assume these responsibilities and regularly verify the safety of workplaces, and face the consequences of this negligence of serious accidents that lead to illness, injury and loss of life. As a result, the demands for an international standard for establishing programs to protect the health and safety of staff have increased dramatically. These standards were issued to support organizations to implement frameworks and guidelines for monitoring and identifying risks, accidents and the overall performance of the OSH management system. It also helps companies to control, or minimize risks and problems that may arise.

2.4.2 OHSAS 18001

In 2007, the British Standards Institute (BSI) developed a set of OHS Management Systems under OHSAS 18001 to address the following topics: Risk planning, risk

assessment and control, OHS Management Program, Organizational Structure and Responsibilities, Training and Awareness, Consultation and Communication, Work Monitoring and Emergency Preparedness and Reactions.

2.4.2.1 Stages of Application and Evaluation of OHS Management Systems (OHSAS 18001):

In general, an organization wishing to implement OHS Management Systems will (BSI, 2004):

1. Conduct a study on the laws in the country that apply to the institution and its employees, products, its activities, services and determine the necessary standards to comply.

2. An integrated analysis of the effects of products, processes and services at the facility in the so-called OHS risk analysis.

3. Make field measurements of the gap between what exists and the criteria that must be adhered to in order to set goals and policy for OHS of the establishment

4. A study of the gap between the status of the existing management of the organization and the requirements of the system of functional health and safety management. This study is usually carried out by participants in the organization, using various tools such as "auditing", including "interviews", "questionnaires" On how far or near is about the functional health and safety management system. The main outputs of this study will be an accurate identification of the gap between the existing system and the functional health and safety management system.

5. The senior management of the organization, in partnership with the specialists, shall draw up an operational plan for the steps and actions required to cover the gap identified.

6. Training and awareness program shall be adopted and implemented for all employees to prepare the entity for the required change.

7. Experts will conduct the plan; resources shall be provided by the senior management.

8. After the implementation which ensures the stability of the new system, the senior management of the organization will employ specialists with appropriate experience both inside and outside the organization to conduct a comprehensive audit of the implementation of the new system in the organization.

9. The audit results are usually "non-matched" to the requirements of the OHS Management System and, with the assistance of the organization's senior management, closing the nonconformance by taking actions.

10. The organization performs the operations listed in items 8 & 9 on a regular basis to maintain a satisfactory level of performance for the organization and in accordance with the requirements of the OHS Management System.

2.4.2.2 Stages of Obtaining OHSAS 18001 Certificates

The OHSAS 18001 standards represent the most functional and safety management system in operation worldwide. The British Standards issued by the British BSI in 2007, Obtain a certificate confirming the organization's compliance with the standards by following a summary of these steps (BSI, 2007):

1. A representative of the Department has the authority to establish and follow up the system and contact the external authorities in relation to the system.

2. Performing an initial scan.

3. Developing and implementing an awareness training program for employees on the OHS Management System in accordance with OHSAS 18001.

4. Implementation of the executive plan, documentation and processing of all the Organization's systems to comply with OHSAS 18001.

5. Performing regular internal audit to detect nonconformities to treat them

6. The senior management undertakes follow-up and periodic reviews planned for the organization and implementation of the system in question and solving the problems of implementation until the senior management reassures the conformity of the organization to the management system and its requirements contained in OHSAS 18001

7. The organization selects and contracts with a recognized certification authority, which coordinates with the management representative of the organization to arrange the date of the audit.

8. The certificate issuer checks the organization and, if the audit is positive, OHSAS 18001 is subject to periodic donor scrutiny to ensure that the organization meets the requirements.

2.4.2.3 Benefits of OHSAS 18001

Meeting OHSAS 18001 Standards will ensure the following benefits (David et al, 2005):

1. Reduce the chances of accidents in the organization.

2. Reduce downtime and reduce cost.

3. Demonstrate legal and legislative compliance.

4. Demonstrate the commitment to health and safety of all those interested in the work of the organization.

5. Show future thinking and advanced methodologies.

6. Get new clients and business partners.

7. Better management of current and future health and safety risks.

8. Reducing general liability and cost of insurance.

2.4.3 OHS Management System (ISO 45001)

OHS Management System (ISO 45001) was published On March 12, 2018, which replaced OHS system OHSAS 18001. ISO 45001 carefully sets OHS System requirements to enable enterprises in various forms to provide safe and healthy workplaces by providing an integrated system to prevent accidents. ISO 45001 conforms to any facility that wishes to establish and implement a professional occupational safety and health management system with a view to improving OHS. It also addressed important organizational factors such as the context of the organization, factors related to the needs and expectations of its customers. ISO45001 includes the following items (BSI, 2018): Scope, references, definitions, context, leadership and employee participation, planning, support, operations, performance evaluation and Improvement.

2.5 Previous Studies

2.5.1 Overview

Previous studies about OHS and job satisfaction are presented in this section. The researcher has found an abundance of studies that dealt with OHS and Job Satisfaction, and on the other hand, these studies have handled these topics in different ways according to the nature of the study. The researcher did not find any that address the subject of the impact of Occupational Health and Safety (OHS) regulations on job satisfaction in the pharmaceuticals industry. This chapter is classified into three Parts: Part I: Studies on OHS. Part II: Studies on job satisfaction. Part III: Studies on the effect of OHS regulations on job satisfaction. The researcher will include the Palestinian, Arab studies and foreign studies in each part in chronological order from the latest to the oldest.

2.5.2 Previous Studies on Occupational Health and Safety (OHS)

A study was conducted by Abunawwas (2018) that aimed to measure the effect of applying OHS systems on performance, in addition to underline the role of training and awareness of employees regarding to procedures and safe methods of performing work. The study was on the Jordan Sweden Medical & Sterilization Co in Jordan. The population was 300 workers, from which a sample of 300 workers was selected. The researcher used analytical descriptive approach and field research methodology, and a questionnaire in collecting data. The researcher found that the implementation of OHS systems directly affects the level of performance of employees. Recommendations were given as training courses for employees, providing a safe, and risk-free work environment, and adopting OHS regulations within international and local standards.

To explore the challenges with managing OHS, as well as to suggest organizational actions to support managers' OHS related work, Tappura (2017**)** conducted a study in three public service organizations, five industrial companies and governmental expert organization in Finland. The population was 12188 workers, from which a sample of 6156 workers were sampled by the Analytical Descriptive Method and a questionnaire. He found that investments have not garnered as positive results as was expected and the development of OHS performance is still necessary. The researcher recommended that OHS related leadership development should be emphasized within organizations in order to achieve an improvement in OHS performance.

Identifying gaps on OHS in the Department of Community Medicine in Gomal Medical College was the objective for a study that conducted by Ahmad et al. (2016). The researchers used Qualitative methodology, and secondary data was collected through literature search such as MEDLINE (PubMed), and Google scholar. They discovered that occupational illness and accidents are found as a result to the lack of performing control measures. The researchers recommended to inspect hazard, giving OHS leadership to the quality management system and OHS knowledge should be spread among employees.

Mahjoob (2014) conducted a study to test if there is a relationship between workers age and accidents. The study was conducted in construction sector in Iraq. 65 workers in total were sampled by the Analytical Descriptive Methodology and a questionnaire was used to collect data. The researcher found that there is a severe shortage and lack of interest in the science of occupational safety and personal protection requirements in the sites of construction projects in Iraq. Inadequate training about OHS practices. Recommendations were given as providing training for workers.

According to a study conducted by Ayesh, and Habeel (2012) to evaluate the OHS practices in the Palestinian laboratories in Gaza Strip. The researchers found that senior management has fair commitment towards safety planes and programs and employees did not receive training on using OHS practices. The population of this study was 505 employees, from which 218 employees was chosen as a sample. The researchers used Analytical Descriptive Methodology and questionnaires with personal interviewers were used to collect data. The researchers recommended that universities need to create a department which is concerned with the occupational safety and focus on training staff to spread awareness. The study also recommended activating safety systems within the scientific laboratories in the Palestinian universities.

Ewaiwi (2008**)** examined the reality of industrial safety and its effect on performance in the private factories in the West Bank. The population of his study consisted of 10290 workers, from which a sample of 370 workers was chosen. The researcher used Analytical Descriptive Methodology and questionnaires with personal interviews were used to collect data. Results were found to be that these facilities are concerned with safety measures and providing workers with tools, machine and safe working conditions. Place cleanness positively affects work performance. The study proved the existence of differences of statistical indications at the level 0.05= α in regard to effect of industrial safety on workers' performance at plants ascribed to variation in gender, education, nature of job, years of performance. Recommendations were given as the need to be committed to safety at work by both workers and employers with proper continues training programs. Table 3 below, summarizes the results of OHS dimension.

Table 3. Results of OHS Dimensions

Study	Year	Workplace Hazards	Workplace Policies And Procedures	OHS Awareness	Participation in OHS
Abunawwas	2018	52%	22%	70%	43%
Tappura	2017	High	Poor	Poor	Poor
Ahmad, et *al.*	2016	High	Poor	Poor	Poor
Mahjoob	2014	Very High	Very Poor	Very Poor	Very Poor
Ayesh, and	2012	Very High	Very Poor	Very Poor	Very Poor
Ewaiwi	2008	High	56%	Poor	17%

2.5.3 Previous Studies on Job Satisfaction

Shrestha (2019) conducted a study to ascertain the level of job satisfaction and examine it via age groups of school teachers in Nepal. The population of this study consisted of one company from which a sample of 60 workers was chosen. The scholar applied a cross-sectional survey design in post-positivist paradigm. The data were amassed from 345 school teachers of a cluster via self-administer questionnaire and analyzed with Descriptive Statistics Method and ANOVA test. The researcher found that job satisfaction was moderate. Likewise, the age groups significantly influence the job satisfaction among school teachers. More specifically, the senior age group teachers expressed more satisfaction in the job than other groups of the teacher. Subsequently, these jobs satisfied teachers contribute to more job commitment, effectiveness and work performances in the school. Furthermore, job satisfaction facilitates school to achieve elevated academic success. The researcher recommended to explore the contribution of age groups on job satisfaction among academia.

Furthermore, Muhrez (2018**)** conducted a study to identify the role of training in achieving Job Satisfaction. The study was conducted in National Institute specialized in the professional training of management and management techniques in M'Sila-Algeria. The population of this study consisted of 80, from which a sample of 30 was selected. The researcher used Analytical Descriptive Methodology and questionnaire to collect data. In this study, job satisfaction was 63.33 % and recommendations were given as training is one of the important sources in achieving individual satisfaction within the organization.

On the other hand, Nawaf'ah (2018) studied the impact of job satisfaction on the job loyalty. The study was conducted in Jordanian private universities in Amman. The population of this study consisted of 217, from which a sample of 96 was selected. The researcher used Analytical Descriptive Methodology and questionnaire to collect data. Results: job satisfaction was 81.5%. Recommendations were given as universities should pay more attention to membership incentives to raise the level of job satisfaction and thus raise the level of loyalty to stabilize the staff.

A study was conducted by Alghanem (2017) to identify the degree of job satisfaction among Sports Journalists in the State of Palestine. 47 journalists were sampled by the Analytical Descriptive Method and the questionnaire was used to collect data. The researcher found that job satisfaction was moderate in the areas of financial returns, incentives and work conditions and nature, while it was no relationship with management and no differences due to the qualification, age and years of experience. He recommended that the administration should take care to strengthen its relationship with journalists and their problems inside and outside the workplace in order to ensure job satisfaction.

Rožman, et al. (2017) in their study to check Motivation and Satisfaction of workers, which performed on two age groups of workers in Slovenia. The population of this study consisted of 400 workplaces, from which a sample of one worker from each workplace was chosen. The researchers used Analytical Descriptive Methodology and questionnaire to collect data. They found that job satisfaction mean was 61.5% and recommendations were given as using quality in outcomes will produced from satisfied employees with high level of efficiency and innovation.

Yaqubi (2016) conducted a study to evaluate the effect of the work characteristics on the motivation and job satisfaction for the self-employed. The study was conducted in IT E-Lancers in Gaza Strip. The population of this study consisted of 1500 workers, from which a sample of 116 was selected. Analytical Descriptive Methodology was used and a questionnaire was used in collecting data. The researcher found that job satisfaction average was 78.18 % and recommendations were given as the government, higher education institutions, and NGOs to spread the culture of self-employment.

Also, Alameen, and Mosawi (2016) conducted a study to identify job satisfaction and identify its causes and the importance of the conditions of the work environment and its role in increasing performance. The study was conducted in Shaaban Hamdoun General Hospital in Algeria. The population was (539), from which a sample of 200 was selected. The researchers used Analytical Descriptive Methodology and questionnaire to collect data. They found that job satisfaction mean was 2.96 and they recommended to develop and update the work environment through the development of a complete system of tools.

To identify the concept of job satisfaction and determine its causes and the most effective factors on the staff performance in organizations, Basheer (2015) conducted a

study in the college of Emirate for science and Technology. The population was (110), from which a sample of 81 was selected. The researcher used Analytical Descriptive Methodology and questionnaire with interviews were used to collect data. The researcher found job satisfaction was 79% and the importance of the conditions of the work environment and its role in increasing performance. Recommendations were given to develop a complete system of means, programs and equipment to make it easy for employees to work.

Moreover, Tomislav (2013) conducted a study to explore the relationship between conditions and job satisfaction in Shipbuilding Company in Croatia. The population of this study consisted of one company from which a sample of 60 workers was chosen. The researcher used Analytical Descriptive Methodology and questionnaire to collect data. Results found that job satisfaction mean was 2.73, and recommendation to train and provide personal protective equipment to workers.

To see if job satisfaction affects employee's desire at work at the Union of Health Work Committees (UHWC) in the Gaza Strip, Hweihi (2008) conducted a study on 227 workers who were sampled by the Analytical Descriptive method and a questionnaire was used to collect data. Results were found to be that job satisfaction average was 74.27 % and recommendations to make a training programs to create safe and fair working conditions. Table 4 below, summarizes the measuring of job satisfaction.

Table 4: Measuring Job Satisfaction

Study	Year	Job Satisfaction
Shrestha	2019	Moderate
Nawaf'ah	2018	81.5%
Muhrez	2018	63.33 %.
Rožman et al.	2017	61.5%
Alghanem	2017	Moderate
Alameen, and Mosawi	2016	2.96
Yaqubi	2016	78.18 %
Tomislav	2013	2.73
Basheer	2015	79%
Hweihi	2008	74.27 %

2.5.4 Previous Studies on OHS with Job Satisfaction

In a study conducted by Rajhi (2017) to measure job satisfaction between employees in Kuwait Press Corporation. The population of the study consisted of 800 workers, from which a sample of 240 was selected. Both Analytical Descriptive Method and questionnaire were used to collect data. The researcher found that there is a moderate relationship between OHS and job satisfaction, also there was a relationship between ages, educational level with job satisfaction. Recommendations were given as Kuwaiti press institutions should pay attention to the results of this study and other studies to raise the efficiency of its employees which will reflect positively on the Kuwaiti press work.

Florence and Amos (2017) also conducted a study to explore the effect of OHS on job satisfaction. The study population was employees in University Campuses in Nakuru Town, Kenya, from which a sample of 258 was selected. The researchers used Analytical

Descriptive Methodology and questionnaire to collect data. They found that OHS management practices are determinants of job satisfaction and they recommended universities to invest in OHS issues that concern employees.

To explore OHS Regulations and its relationship to job satisfaction, Khadrawi (2014) conducted a study on employees in the Textile and Processing Est. in Biskra-Algeria. The population of the study consisted of 198 workers, from which a sample of 40 was selected. The researcher used Analytical Descriptive Methodology and questionnaire to collect data. The researcher found that there is a relationship between OHS and job satisfaction. Recommendations were given as to establish a culture that emphasizes OHS, pay attention to workers with training, allocate the incentive rewards for the employees who are committed to OHS regulations, ensure the regular maintenance of equipment and tools and the removal of old ones, and the need to recruit specialists in OHS and to benefit from the experience of developed countries in the field of OHS.

Furthermore, Awadallah (2012) conducted a study to explore the impact of motivation and its role in achieving job satisfaction of employees. The study population is employees in the Customer Accounts Administration (Gaza Municipality). The population of the study consisted of 60 workers, from which a sample of 29 was selected. The researcher used Analytical Descriptive Methodology and questionnaire to collect data. Results revealed the there was a relationship between job satisfaction and working environment. Recommendations were given as conducting continuous studies and periodic surveys to measure the level of job satisfaction in all institutions to achieve the best performance levels.

Moreover, Ria, et al. (2012) conducted a study to measure the influence of OHS on performance with job satisfaction. The study population is Indonesian employees at PMR. 250 workers from which 50 was selected in which Analytical Descriptive Methodology and questionnaire were performed to collect data. Researchers found that there is a relationship between OHS and job satisfaction. Recommendations were given as tools and machine should be arranged in compliance with OHS.

Finally, Salim (2009) with his study to measure the OHS status in industrial facilities in Palestine, found that the degree to which workers satisfied when OHS regulations were applied was high. The study population is employees in industrial sectors in Tulkarm Governorate, which includes: quarries, factories, gas, water and electricity. 397 workers, from which a sample of 314 was selected. Analytical Descriptive Methodology and questionnaire were used. Recommendations were given as designing a training programs in order to raise awareness among workers' culture and increase their awareness for the need to apply OHS regulations. Table 5 below summarizes the existence of relationship between OHS and job satisfaction.

Table 5: OHS & Job Satisfaction Relationship

Study	Year	Job Satisfaction / OHS Relationship
Florence, and Amos	2017	Yes
Rajhi	2017	
Khadrawi	2014	
Ria et *al.*	2012	
Awadallah	2012	
Salim	2009	

2.5.5 Comments on Previous Studies

The relative scarcity of studies concerning the areas of OHS, and job satisfaction in the pharmaceutical's companies. This study is one of the first studies - to the best of the researcher's knowledge - that connected the OHS with job satisfaction in the pharmaceutical companies in Ramallah & Al-Bireh. The previous studies concerning OHS regulations and its effect on job satisfaction are different in their subjects, objectives and tools, depending on the variety of aspects. Previous studies have shown a clear interest in the variables of the current study, and seek to invest them in the optimal investment to achieve the desired results.

2.5.5.1 Agreement and Differences with Previous Studies

- **Previous Studies on Occupational Health and Safety (OHS)**

Some of the studies were conducted in the private factories in the West Bank like (Ewaiwi, 2008), others were conducted in the Palestinian laboratories in Gaza Strip as in (Ayesh, and Habeel, 2012). Another study was conducted in construction sector in Iraq. (Mahjoob,2014), while in Jordan Abunawwas (2018) conducted his study in the Jordan Sweden Medical & Sterilization Co. Ahmad et al., (2016) conducted his study in Department of Community Medicine, in Gomal Medical College, D.I. Khan, Pakistan. Tappura (2017) performed a study in public service organizations In Finland,

The tools used in the previous studies and research varied depending on the purpose of these studies. Some of them used questionnaires, interviews or both. While the researcher used the questionnaire method.

This study agrees with the previous studies in considering the OHS regulations as independent variable, while considering the 4 sub variables (Workplace hazards, Workplace Policies and Procedures, OHS Awareness, Participation in OHS) as the most important variables that reflect the commitment in OHS regulations.

- **Previous Studies on Job Satisfaction**

Abo-Alrous (2008) conducted his study at Union of Health Work Committees (UHWC) in the Gaza Strip. Yaqubi (2016) in IT E-Lancers in Gaza Strip. Alghanem (2017) also conducted a study among Sports Journalists in Palestine. Basheer (2016) conducted a study in the college of Emirate for science and Technology. While Alameen, and Mosawi (2016) conducted a study in Shaaban Hamdoun General Hospital in Algeria. Nawaf'ah (2018) conducted a study in Jordanian private universities in Amman. In Slovenia, Rožman, et al. (2018) conducted a study in two age groups of employees. Tomislav (2013) performed a study in Shipbuilding Company in Croatia. Shrestha (2019) conducted a study to ascertain the level of job satisfaction in Nepal. Also, Muhrez (2018) identified the role of training in achieving job satisfaction in M'Sila-Algeria.

Previous studies and the researcher used the similar descriptive analytical method. As in the previous studies, the job satisfaction was considered as dependent variable

- **Previous Studies on OHS and Job Satisfaction**

Salim (2009), conducted study in the industrial sectors in the Tulkarem Governorate, while Awadallah (2012) conducted a study at the Customer Accounts Administration at Gaza Municipality. In Biskra-Algeria, Khadrawi (2014) conducted a study in the Textile and Processing Establishments. Rajhi (2017), conducted a study in the Kuwait Press Corporation, and Ria, et al. (2012) performed a study on the Indonesian employees at

PMR. (Florence, and Amos (2017) also conducted a study in University Campuses in Nakuru Town, Kenya.

The previous studies used the descriptive analytical method, and the researcher also used the descriptive analytical method depending on the nature of the study. Some of the previous studies used a simple random sample while the researcher used a stratified random sample. All studies showed a relationship between job satisfaction and OHS regulations.

Chapter Three

Methodology

3.1 Overview

In this chapter, the researcher discusses the design, scope of study, the population and the sample techniques used for sampling process, the instrument used to collect data and the validity and reliability of the questionnaire. Furthermore, normality test is conducted to decide the statistical methods that are used in analyzing the data.

3.2 Study Design

Based on the nature of the study, the researcher used the analytical descriptive method. This type of research method focuses on studying the phenomenon in reality. In addition, the questionnaire was used as a tool for data collection that guided the researcher to conclusions and recommendations. Two main sources of data have been used:

1. Secondary sources: The theoretical framework of the study was prepared depending on previous studies that dealt with the subject of study, in addition to searching and reading in various internet sites.

2. Preliminary sources: Primary data was collected using the questionnaire as a tool for data collection which was designed specifically for the purpose of this study.

3.3 Population of the Study

The target population for this study is the employees in the pharmaceutical industry in Ramallah & Al-Bireh which are: Birzeit Pharmaceutical Company (BPC), Jerusalem Pharmaceuticals Company (JPharm) and Pharmacare PLC (PCP). According to the

Human Resources Departments in these companies, the total number of employees in the three companies is shown in Table 6.

Table 6: Population of the Study

Company	Number of Employees	Total Number of Employees
Birzeit	300	932
Jpharm	302	
Pharmacare	330	

Source: Human Resources Departments in (BPC), (JPharm) and (PCP), 2019.

3.4 Sample Size and Sampling Techniques

After reviewing the files of (BPC), (JPharm) and (PCP), the total number of employees was 932. The sample size was calculated as follow (www.surveymonkey.com):

$$\text{Sample size, } n = N * \frac{\frac{Z^2 * p * (1-p)}{e^2}}{[N - 1 + \frac{Z^2 * p * (1-p)}{e^2}]}$$

Where,

- Population Size (N) = 932
- Critical Value (95% =confidence level) (Z) = 1.96
- Margin of Error (e) = 0.08
- a) Sample Proportion (uncertain) (p) = 0.5
- b) Sample Proportion (p) = 0.05
- **Sample Size(n) = 129**

A stratified random sampling was used for selecting the respondents. This technique was used to make sure that a representative sample for each company is available.

Table 7 shows the share of each company in the sample according to the number of employees in each company.

Table 7: Sample of the Study

Company	Number of Employees	% from the Total Sample Size	No of Sampling Size for each Company	Total Sample Size
BPC	300	32.2%	42	129
JPharm	302	32.4%	42	
PCP	330	35.4%	45	

3.5 Instrument for Data Collection

The researcher used the questionnaire for data collection, Table 8 below shows the design of the questionnaire and number of paragraphs in each section.

Table 8: Questionnaire Design

Section	Variable	No. of Paragraphs	Contents
1	**Demographic**	5	Gender, age, degree, job title, experience
2.1.1	**OHS Sub-Variables**	15	Workplace hazards
2.1.2		12	Workplace policies and procedures
2.1.3		8	OHS awareness
2.1.4		6	Participation in OHS
2.2	**Job Satisfaction**	20	Job Satisfaction

3.6 Building the Questionnaire

The followings are the steps to build the questionnaire which was the study tool to test "The impact of Occupational Health and Safety (OHS) regulations on job satisfaction between employees in the pharmaceutical industry in Ramallah & Al-Bireh District":

1. Reviewing literature and previous studies related to the subject of the study, and used them in building the questionnaire and drafting its paragraphs.

2. Consulting a number of university professors and experts in defining the fields of the questionnaire and its paragraphs.

3. Identifying the main areas covered by the questionnaire.

4. Identifying the paragraphs for each area.

5. Designing the questionnaire in its initial form.

6. Reviewing and revising the questionnaire by the selected experts.

7. Presenting the questionnaire to 10 faculty members and experts from Birzeit University, An-Najah National University, Arab American University, and Palestinian Central Bureau of Statistics. Annex (14) shows the names of the arbitrators.

8. After reviewing the opinions of the arbitrators, some paragraphs of the questionnaire were amended in terms of deletion, addition and modification, the questionnaire was finalized as shown in Annex (15).

9. Twenty-two questionnaires were distributed in the Pharmaceuticals companies in Ramallah & Al-Bireh as a pilot study to test the validity and reliability. The pilot sample was excluded and the questionnaires were re-distributed to the sample of the study.

3.7 Validity of the Questionnaire

Validity of the Questionnaire means "the questionnaire should measure what is being measured" (Jerjawi, 2010). Also, it means that all the elements must be included in the analysis on the one hand, and the clarity of paragraphs and their vocabulary on the other hand, so that it is understood by everyone who uses "(Obaidat et *al*., 2001).

3.7.1 External Validity

External validity means that the researcher chooses experts in the field of the study problem. (Jerjawi, 2010). The questionnaire was presented to 10 faculty members and experts in the field of study problem and after reviewing the opinions of the arbitrators, some paragraphs of the questionnaire were amended in terms of deletion, addition and modification, to reach its final form as shown in Annex (15).

3.7.2 Internal Validity

Internal validity means the consistency of each paragraph of the questionnaire with the variable to which this paragraph belongs (Andrade, 2018). The internal validity of the questionnaire was calculated by calculating the correlation coefficients as follows:

- **Internal Validity for Satisfaction**

Table 9 shows that all the statements of job satisfaction are significant (p-value < 0.05). This indicates that job satisfaction section in the questionnaire is valid.

Table 9: The Correlation Coefficient and Significance between the Statements of Job Satisfaction and Total Job Satisfaction.

No	Statement	Correlation Coefficient	p-value
1	Ability to be busy all the time	0.522**	0.000
2	The opportunity to work alone during periods of work	0.240**	0.008
3	The opportunity to do different things from time to time	0.364**	0.000
4	The opportunity to be a person with a sense of community	0.397**	0.000
5	The way managers handle their employees	0.527**	0.000
6	The main efficiency of direct decision-making	0.510**	0.000
7	The ability to do things does not contradict my conscience	0.497**	0.000
8	The way you provide stable jobs	0.491**	0.000
9	The opportunity to cooperate with others	0.427**	0.000
10	The opportunity to tell people what to do	1.000**	0.000
11	The opportunity to use my abilities to do something useful	0.403**	0.000
12	The way the company applies business policy	0.472**	0.000
13	My salary compared to what I do	0.530**	0.000
14	Upgrade opportunities in this post	0.702**	0.000
15	Freedom to use my opinion and my experience	0.642**	0.000
16	The opportunity to use my own ways to perform the work	0.513**	0.000
17	Work environment	0.681**	0.000
18	The way my colleagues deal with each other at work	0.535**	0.000
19	Praise you get it when you do a good job	0.640**	0.000
20	Feeling of accomplishment during work	0.461**	0.000

- **Internal Validity for Workplace Hazards**

Table 10 shows that all the statements of workplace hazards section are significant (p-value < 0.05). This indicates that workplace hazards section in the questionnaire is valid.

Table 10: The Correlation Coefficient and Significance between the Statements of Workplace Hazards and Total Workplace Hazards.

No	Statement	Correlation Coefficient	p-value
1	Lift weights greater than 20 kg at least 10 times a day.	0.492**	0.000
2	Hold weights greater than 20 kg at least 10 times a day.	0.515**	0.000
3	Push weights greater than 20 kg at least 10 times a day.	0.533**	0.000
4	Take frequent hand movements (e.g., packing, sorting, collecting, cleaning, drawing, pushing, and writing) for at least 3 hours during the day.	0.546**	0.000
5	I'm doing work assignments that I'm not familiar with.	0.592**	0.000
6	I use methods I'm not familiar with.	0.602**	0.000
7	Treat hazardous materials such as chemicals, flammable liquids or gases.	0.443**	0.000
8	Work in a curved position.	0.731**	0.000
9	Work in a crooked position.	0.825**	0.000
10	I work in a difficult situation.	0.742**	0.000
11	Work at a height of 2 meters or more above the ground level.	0.577**	0.000
12	I do so loud that I have to raise my voice when talking to people less than a meter away.	0.665**	0.000
13	I was bothered at work.	0.570**	0.000
14	I was harassed at work.	0.465**	0.000
15	I stay standing for more than 2 hours in a row.	0.622**	0.000

- **Internal Validity for Workplace Policies and Procedures**

Table 11 shows that all the statements of workplace policies and procedures section are significant (p-value < 0.05). This indicates that workplace policies and procedures section in the questionnaire is valid.

Table 11: The Correlation Coefficient and Significance between the Statements of Workplace Policies and Procedures and Total Workplace Policies and Procedures.

No	Statement	Correlation Coefficient	p-value
1	Each person receives the required OHS training in the workplace at the start of work.	0.720**	0.000
2	Each person receives the required OHS training in the workplace when the jobs are changed.	0.788**	0.000
3	Each individual receives the required OHS training in the workplace when using new methods.	0.751**	0.000
4	There is regular communication between staff and management on safety issues.	0.799**	0.000
5	There are systems for identifying hazards at work.	0.787**	0.000
6	There are systems to prevent hazards at work.	0.708**	0.000
7	There are systems for dealing with hazards at work.	0.739**	0.000
8	Health and safety in the workplace are as important as production.	0.611**	0.000
9	Health and safety in the workplace are as important as quality	0.642**	0.000
10	There is an active and effective health and safety committee and / or health and safety representative for workers.	0.681**	0.000
11	Accidents are investigated quickly to improve health and safety in the workplace.	0.734**	0.000
12	Health and safety procedures in the workplace are communicated and communicated in a way that I understand.	0.682**	0.000

- **Internal Validity for OHS Awareness**

Table 12 shows that all the statements of OHS awareness section are significant (p-value < 0.05). This indicates that OHS awareness section in the questionnaire is valid.

Table 12: The Correlation Coefficient and Significance between the Statements of OHS Awareness and Total OHS Awareness

No	Statement	Correlation Coefficient	p-value
1	My rights regarding health and safety in the workplace are clear to me.	0.739**	0.000
2	My responsibilities regarding health and safety in the workplace are clear to me.	0.674**	0.000
3	The rights of employers regarding health and safety in the workplace are clear to me.	0.760**	0.000
4	Employers' responsibilities regarding health and safety in the workplace are clear to me.	0.767**	0.000
5	I know how to do my work in a safe way.	0.604**	0.000
6	If I know that there is a risk to health or safety in my workplace, I know the appropriate staff member who should report the danger.	0.632**	0.000
7	I have the knowledge to help answer any health and safety issues in my workplace.	0.674**	0.000
8	I know what precautions should be taken while doing my job.	0.641**	0.000

- **Internal Validity for Participation in OHS**

Table 13 shows that all the statements of participation in OHS section are significant (p-value < 0.05). This indicates that participation in OHS section in the questionnaire is valid.

Table 13: The Correlation Coefficient and Significance between the Statements of Participation in OHS and Total Participation in OHS

No	Statement	Correlation Coefficient	p-Value
1	Feel free to express concerns or make suggestions about health and safety in the workplace.	0.578**	0.000
2	If you notice a risk at the workplace, mention it to the department.	0.435**	0.000
3	I know I can stop working if I think there is something unsafe.	0.538**	0.000
4	I know that the administration will not give me hard work.	0.763**	0.000
5	If my work environment is unsafe, you will not say anything, and I hope the situation will eventually improve.	0.537**	0.000
6	I have enough time to safely complete my tasks.	0.628**	0.000

3.7.3 Structure Validity

Structure validity measures the extent to which the tool achieves its objectives, and shows how closely each variable of study relates to the whole variables in the questionnaire.

Table 14 shows that all variables are significant (p-value < 0.05). This indicates that all variables in the questionnaire are valid.

Table 14: The Correlation Coefficient and Significance between All Variables in the Questionnaire

Spearman's rho	All Variables	
	Correlation Coefficient	Sig. (2-tailed)
All Variables	1.000	
Job Satisfaction	0.532**	0.000
Workplace Hazards	0.278**	0.002
OHS Policies & Procedures	0.633**	0.000
OHS Awareness	0.684**	0.000
Participation in OHS	0.544**	0.000
**. Correlation is significant at the 0.01 level (2-tailed).		
*. Correlation is significant at the 0.05 level (2-tailed).		

3.8 Reliability of the Questionnaire

Reliability means that the questionnaire should give the same results if repeated several times. It also means to what degree the scale gives close readings each time it is used, or its degree of consistency and continuity when repeated at different times. (Jerjawi, 2010).

The reliability of the study questionnaire was verified through the Cronbach's Alpha Coefficient, if the Cronbach alpha value is greater than 0.70 it is acceptable and good. The overall reliability of the five main variables is more than 0.70. It is concluded that

the measurement scales of the whole sections of questionnaire are stable and consistent as shown in Table 15.

Table 15: The Overall Reliability of the Study Variables

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Job Satisfaction	0.883	0.873	20
Workplace hazards	0.869	0.887	15
Workplace policies and procedures	0.947	0.950	12
OHS awareness	0.886	0.882	8
Participation in OHS	0.717	0.759	6

The validity and reliability of the questionnaire was confirmed through the above tests, which makes the questionnaire suitable for data collection to answer the objectives of the study and test its hypothesis.

3.9 Normality Distribution Test

The Kolmogorov-Smirnov Test was used to test whether data are normally distributed or not. Table 16 shows the results of the normality test for the main five variables in this study. Since the p-value of both tests of normality (Kolmogorov-Smirnov and Shapiro-Wilk) is less than 0.05, we conclude that the five variables didn't fulfill the normality assumption. Nonparametric tests were used to analyze data and test study hypotheses.

Table 16: Tests of Normality

Variable	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Job Satisfaction	0.090	122	0.018	0.971	122	0.010
Workplace Hazards	0.105	122	0.002	0.973	122	0.015
Workplace Policies and Procedures	0.225	122	0.000	0.871	122	0.000
OHS awareness	0.202	122	0.000	0.866	122	0.000
Participation in OHS	0.144	122	0.000	0.867	122	0.000

3.10 Statistical Methods Used

To fulfill the study objectives, Statistical Package for Social Science (SPSS) was used in analyzing the data, answering the objectives of the study and testing the hypothesis. The following tests were used:

1. Chi-square: To analyze the relationship between two variables.

2. Kruskal-Wallis: Nonparametric test alternative to the One-Way ANOVA, to determine whether the medians of two or more groups are different.

3. Mann-Whitney: Nonparametric test equivalent of the two-sample t-test, to compare two populations.

4. Spearman correlation: Nonparametric version of the Pearson correlation coefficient, to test how strong a relationship is between two variables.

5. Mean: To test the average value in a sample.

6. Relative weight: To quantify the relative importance of correlated predictor variables in regression analysis.

7. Shapiro-Wilk test: To test if a variable is normally distributed.

3.11 Summary

This chapter contains a description of the methodology used, the population and the sample of the study, as well as the instrument used in the study, how it was prepared and constructed, and its validity and reliability. The chapter ended with the statistical measures that were used in analyzing the data and extracting the results.

Chapter Four

Data Analysis and Hypotheses Testing

4.1 Overview

This chapter presents the data analysis of the study including answering the research questions and the hypothesis testing. The Statistical Package for Social Studies (SPSS) program was used to obtain the study results presented and analyzed in this chapter. These results were interpreted by the researcher and compared to the results of previous studies.

4.2 Study Sample Profile

Table 17 shows the demographic data of 122 respondents. The table provides the gender information which shows that 49.2% of the respondents were male and 50.8% were female.

Table 17: Distribution of the Study Sample by Gender

Gender	Frequency	Percent
Male	60	49.2%
Female	62	50.8%
Total	**122**	**100%**

It is believed that there is a close percentage of females and males in the pharmaceuticals industry, even though the women participation in labor force is less than males in Palestine. This is due to the higher percentage of female pharmacists (60.2%) while male pharmacists (39.8%), (Palestinian Central Bureau of Statistics, 2018).

Table 18 shows the respondents age-group data. The first age group (> 29 years) accounted for 29.5% and next (29 to 38 years) age group which accounted for 30.3%, the age group (39 to 48 years) was 18.9% and above 48 years-age-group was 21.3%.

Table 18: Distribution of the Study Sample by Age

Age (Years)	Frequency	Percent
< 29	36	29.5%
29-38	37	30.3%
39-48	23	18.9%
49+	26	21.3%
Total	**122**	**100%**

It is believed that the higher percentage of the age group (29 to 38 years) between employees is due to the fact that the study targeted the employees with professional and supervisory background. These positions need extensive experience in the field of work, which is achieved through higher degrees that related to this age group.

Table 19, shows the educational qualification of the respondents which varies from secondary to master. About 27% have secondary degree or low, 13.1% diploma, 47.5% bachelor, 3.3% high diploma and 9% master. The high percentage of the Bachelor holder is due to the fact that the respondents have professional and supervisory duties that need extensive experience through higher degrees such as Bachelor degrees.

Table 19: Distribution of the Study Sample by Education Level

Education Level	Frequency	Percent
Master	11	9.0%
High Diploma	4	3.3%
Bachelor	58	47.5%
Diploma	16	13.1%
Secondary or lower	33	27.0%
Total	**122**	**100%**

Table 20 show that 5.7% of respondents are department manager, 11.5% respondents are unit heads, 7.4% are assistant director, 9.8% are supervisors, 10.7% are laboratory

technicians, 23.8% are production technicians, 1.6% are maintenance technicians and 29.5% have other job titles.

Table 20: Distribution of the Study Sample by Job Title

Job title	Frequency	Percent
Department Manager	7	5.7
Unit Head	14	11.5
Assistant Director	9	7.4
Supervisor	12	9.8
Laboratory Technician	13	10.7
Production Technician	29	23.8
Maintenance Technician	2	1.6
Others	36	29.5
Total	**122**	**100%**

The higher percentage of employees with other job titles is due to the multi functions and responsibilities that employees may have at their work, like janitors and cleaning staff that can be found in large numbers in this industry.

Table 21 shows the distributing of the sample by work experience. About 4.1% of respondents have less than one-year experience, 36.9% have 1-5 years' experience, 15.6% have 6-10 years' experience, 18% have 11-15 years' experience and 25.4% have more than 16 years' experience.

Table 21: Distribution of the Study Sample by Experience

Experience	Frequency	Percent
Less than one year	5	4.1
1-5	45	36.9
6-10	19	15.6
11-15	22	18.0
16+	31	25.4

It is believed that the higher percentage of employees with experience from 1-5 years is due to the newly graduates students of the bachelor degree who prefer to start their work experience in such companies to expand their knowledge, and the policy of these companies that encourages hiring newly graduates students.

4.3 Study Scale

To explain the results of the study resulted from using Likert Scale in the questioner, and to judge the response level, the scale shown in Table 22 below was used (Ozen, et al., 2012).

Table 22: Study Scale

Respond	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Point	**5**	**4**	**3**	**2**	**1**
Relative Weight	From 84%-100%	From 68%-84%	From 52%-68%	From 36%-52%	< 36%
Degree	Very High	High	Moderate	Low	Very Low
Mean	4.21-5.00	3.41-4.20	2.61-3.40	1.81-2.60	1.00-180

4.4 Analysis and Discussing Study Variables

4.4.1 OHS Regulations

4.4.1.1 Workplace Hazards

The workplace hazards in the questionnaire were represented by 15 questions reflecting workplace hazards in the pharmaceutical industry in the form of a Likert scale of 5. Table 23 shows the results of workplace hazards.

Table 23: Workplace Hazards Analysis

Paragraph	Mean	Std. D	Relative Weight	t	Sig. (2-tailed)	Rank
1-I lift weights greater than 20 kg at least 10 times a day.	1.87	1.01	37.4%	-12.34	0.000	11
2-I hold weights greater than 20 kg at least 10 times a day.	1.89	1.01	37.9%	-12.09	0.000	10
3-I push weights greater than 20 kg at least 10 times a day.	2.01	1.07	40.2%	-10.14	0.000	9
4-I make frequent hand movements for at least 3 hours during the day.	2.93	1.36	58.5%	-0.59	0.552	1
5-I'm doing work assignments that I'm not familiar with.	1.77	0.84	35.4%	-16.14	0.000	13
6-I use methods I'm not familiar with.	1.77	0.83	35.4%	-16.34	0.000	14
7-I treat hazardous materials such as chemicals, flammable liquids or gases.	2.43	1.34	48.5%	-4.70	0.000	3
8-I work in a curved position.	2.37	1.13	47.4%	-6.13	0.000	4
9-I work in a crooked position.	2.16	1.09	43.1%	-8.48	0.000	5
10-I work in a difficult situation.	2.05	1.00	41.0%	-10.47	0.000	7
11-I work at a height of 2 meters or more above the ground level.	2.03	1.15	40.7%	-9.23	0.000	8
12- I have to raise my voice when talking to people less than a meter away.	2.07	1.11	41.3%	-9.28	0.000	6
13-I was bothered at work.	1.84	0.98	36.9%	-12.92	0.000	12
14-I was harassed at work.	1.48	0.70	29.5%	-23.82	0.000	15
15-I stay standing for more than 2 hours in a row.	2.48	1.33	49.5%	-4.33	0.000	2
Average	**2.07**	**0.63**	**41.5%**	**-16.04**	**0.000**	

- Paragraph number 4, ranked first, “I take frequent hand movements (e.g., packing, sorting, collecting, cleaning, drawing, pushing, and writing) for at least 3 hours during the day" with a relative weight of (58.5%). This is due to the nature of work in the production area in the pharmaceutical’s companies, which has the biggest number of workers that do many different tasks during cleaning, mixing, filling and packaging processes.

- Paragraph number 14, ranked last, “I was harassed at work." with a relative weight of (29.5%). This is due to the nature of this question as we live in a conservative culture and talking about these subjects in the opinion of the victim (if it is found) is limited or forbidden even if it was practiced specially on women.
- In general, there is a low agreement with a relative weight of (41.5%) between the respondents that they have workplace hazards.

The results in Table 23 contradict with the results of the study conducted by Ayesh, and Habeel (2012) to evaluate the OHS practices in the Palestinian laboratories in Gaza Strip, in which they found that workplaces hazards are very high .They also contradict with Ewaiwi (2008) in her study to examine the reality of industrial safety and its effect on performance in the private factories in West Bank, in which she found that workplaces hazards are high. Moreover, they contradict with Abunawwas (2018) in his study to measure the effect of applying OHS systems on performance, in which he found that workplaces hazards are with a percentage of 52%. Also, they contradict with Mahjoob (2014) in his study to see if there is a relationship between workers age and accidents, in which he found that workplaces hazards are very high. Furthermore Tappura (2017) found in his study to identify challenges with managing OHS, that workplaces hazards are high, which also contradict with the results of this study. Ahmad et al. (2016) found that workplaces hazards are high in their study to identify gaps on OHS, which contradicts with the results of this study.

It is believed that this contradiction with these studies is due to the difference in the nature of industry to which the study was applied, and the lack of effort required by the top management of the previous researched studies to deal with workplaces hazards in terms of the right decision-making.

4.4.1.2 Workplace Policies and Procedures

Workplace policies and procedures in the questionnaire consisted of 12 questions addressing the policies and procedures of OHS in pharmaceutical companies in the form of a Likert scale of 5. Table 24 shows the results of workplace policies and procedures.

Table 24: Workplace Policies and Procedures Analysis

Paragraph	Mean	Std. D	Relative Weight	t	Sig. 2-tailed	Rank
1-Each person receives the required OHS training in the workplace at the start of work.	4.02	0.940	80.5%	12.03	0.000	1
2-Each person receives the required OHS training in the workplace when the jobs are changed.	3.89	0.955	77.7%	10.23	0.000	11
3-Each individual receives the required OHS training in the workplace when using new methods.	3.90	0.904	78.0%	11.02	0.000	9
4-There is regular communication between staff and management on safety issues.	3.86	0.884	77.2%	10.74	0.000	12
5-There are systems for identifying hazards at work.	4.02	0.823	80.3%	13.64	0.000	2
6-There are systems to prevent hazards at work.	3.95	0.880	79.0%	11.93	0.000	7
7-There are systems for dealing with hazards at work.	3.98	0.782	79.7%	13.89	0.000	4
8-OHS in the workplace is as important as production.	3.90	0.948	78.0%	10.50	0.000	10
9-OHS in the workplace is as important as quality.	3.95	0.926	79.0%	11.34	0.000	8
10-There is an active and effective OHS committee and / or health and safety representative for workers.	3.97	0.935	79.3%	11.42	0.000	6
11-Accidents are investigated quickly to improve OHS in the workplace.	3.98	0.927	79.7%	11.72	0.000	5
12-Health and safety procedures in the workplace are communicated in a way that I understand.	4.01	0.818	80.2%	13.61	0.000	3
Average	**3.952**	**0.703**	**79.0%**	**14.97**	**0.000**	

- Paragraph number 1, ranked first," Each person receives the required OHS training in the workplace at the start of work" with a relative weight of (80.5%). This is due to the strict policy of training that workers follow when they start their work in the pharmaceuticals companies. Each worker will follow a designated training plan that must be conducted in all related working tasks.
- Paragraph number 4, ranked last," There is regular communication between staff and management on safety issues" with a relative weight of (77.2%). This is because not all pharmaceuticals companies have OHS committee, which consists of all employees in the facility. This committee, if exists speeds up the communication process with management at higher levels.
- In general, the result shows that there is a high agreement between respondent with relative weight (79%) on the OHS Policies and Procedures.

The results in Table 24 contradict with Ayesh, and Habeel (2012) who found that workplace policies and procedures are very poor. They also contradict with Ewaiwi (2008) who found that workplace policies and procedures are in a percentage of 56%. Moreover, they contradict with Abunawwas (2018) who found that workplace policies and procedures are with a percentage of 22%. Also, they contradict with Mahjoob (2014) who found that workplace policies and procedures are very poor. Furthermore Tappura (2017) and Ahmad et al. (2016) found that workplace policies and procedures are poor, which contradict with the results of this study.

It is believed that this contradiction with previous studies is due to the difference in the organizational structures of the previous researched studies and the fact that family business is the most common in these studies, which affect the policies and procedures that are followed in these settings.

4.4.1.3 OHS Awareness

The OHS awareness in the questionnaire consisted of 8 questions to measure the awareness of workers of OHS in the pharmaceutical industry in the form of a Likert scale of 5. Table 25 shows the results of OHS awareness.

Table 25: OHS Awareness Analysis

Paragraph	Mean	Std. D	Relative Weight	t	Sig. (2-tailed)	Rank
1-My rights regarding OHS in the workplace are clear to me.	4.02	.710	80.5%	15.949	0.000	5
2-My responsibilities regarding OHS in the workplace are clear to me.	4.09	.656	81.8%	18.367	0.000	4
3-Employers rights regarding OHS in the workplace are clear to me.	3.89	.780	77.9%	12.652	0.000	8
4-Employers' responsibilities regarding OHS in the workplace are clear to me.	3.91	.803	78.2%	12.516	0.000	7
5-I know how to do my work in a safe way.	4.20	.700	83.9%	18.885	0.000	3
6-If I know that there is a risk to health or safety in my workplace, I know the appropriate staff member who should report the danger.	4.26	.690	85.2%	20.207	0.000	2
7-I have the knowledge to help answer any OHS issues in my workplace.	4.02	.749	80.3%	14.979	0.000	6
8-I know what precautions should be taken while doing my job.	4.27	.668	85.4%	20.992	0.000	1
Average	**4.083**	**0.54843**	**81.6%**	**21.811**	**0.000**	

- Paragraph number 8, ranked first," I know what precautions should be taken while doing my job" with relative weight of (85.4%). This is due to the continuous training in these facilities because of the sensitive materials that employees handle and the nature of final product (medicine) that is produced.

- Paragraph number 3, ranked last," Employers' responsibilities regarding OHS in the workplace are clear to me, with relative weight of (77.9%). This is because not all employees are familiar with top management tasks concerning OHS in the facility, risk assessment for example is usually conducted by a high level of management which needs a careful and well designated tool.
- In general, the result shows that respondents have a high agreement with relative weight of (81.6%) of awareness on OHS.

The results in Table 25 contradict with Ayesh, and Habeel (2012), who found that OH awareness is very poor. They also contradict with Ewaiwi (2008) who found that OH awareness is poor. Also, they contradict with Mahjoob (2014) who found that OH awareness is very poor. Furthermore Tappura (2017) and Ahmad et al. (2016) also found that OH awareness is poor.

On the other hand, this study is consistent with Abunawwas (2018) who found that OH awareness is high with a percentage of 70%.

It is believed that this contradiction with the previous studies is due to the lack of periodical and continuous training and awareness required in the previous researched studies to spread OHS awareness. Also, the absence or the rare visits of inspection bodies for educating workers in the field of OHS. The consistency with Abunawwas (2018) is related to the nature of industry in which his study was conducted (Medical & Sterilization Co in Jordan) which is similar to this study and the sensitive tasks and products that are produced (medical products).

4.4.1.4 Participation in OHS

The participation in OHS questionnaire included six questions to examine the participation of workers in applying of OHS conditions in the pharmaceutical industry

companies in the form of Likert scale consisting of 5. Table 26 shows the results of participation in OHS.

Table 26: Participation in OHS Analysis

Paragraph	Mean	Std. D	Relative Weight	t	Sig. (2-tailed)	Rank
1-Feel free to express concerns or make suggestions about health and safety in the workplace	3.93	0.810	78.7%	12.735	0.000	4
2-If you notice a risk at the workplace, I mention it to the department	4.24	0.705	84.8%	19.397	0.000	1
3-I know I can stop working if I think there is something unsafe	4.21	0.826	84.3%	16.231	0.000	2
4-I know that the administration will not give me hard work	3.89	0.943	77.9%	10.464	0.000	5
5-If my work environment is unsafe, you will not say anything, and I hope the situation will eventually improve	3.02	1.342	60.3%	0.135	0.893	6
6-I have enough time to safely complete my tasks	4.09	0.782	81.8%	15.397	0.000	3
Average	**3.897**	**0.584**	**77.9%**	**16.957**	**0.000**	

- Paragraph number 2, ranked first," If you notice a risk at the workplace, I mention it to the department "with relative weight of (84.8%). This is due to the high sense of participation and commitment toward safety in the workplace, without it the workers will be threaten and they will be face to face with a hazard that will threat their life and others. Moreover, some companies will give workers incentives in exchange for discovering or telling about any abnormalities that may be found in the workplace.
- Paragraph number 5, ranked last," If my work environment is unsafe, you will not say anything, and I hope the situation will eventually improve, with relative weight of (60.3%). This is because workers contribute to make the work conditions safer as they

are part of it and can't wait until the working environment is safer or after the management does the job.

- In general, the result shows that there is a high agreement between respondents with relative weight of (77.9%) of the workers to participate in OHS.

The results in Table 26 contradict with Ayesh, and Habeel (2012), who found that Participation in OHS is very poor. They also contradict with Ewaiwi (2008) who found that participation in OHS is with a percentage of 17%. Moreover, they contradict with Abunawwas (2018) who found that participation in OHS is with a percentage of 43%. Also, they contradict with Mahjoob (2014) who found that participation in OHS is very poor. Furthermore Tappura (2017) and Ahmad et al. (2016) who found that participation in OHS is poor, which also contradicts with the results of this study.

This contradiction is due to the fact that managing OHS in these facilities is solely practiced by top management or business owner as this subject in their opinion is expensive and can't tolerate any error.

4.4.1.5 Total OHS Regulations

Table 27 shows the total of OHS regulations analysis in the pharmaceutical industry companies (Workplace hazards, Workplace policies and procedures, OHS awareness and Participation in OHS).

Table 27: Total OHS Regulations

OHS Variable	Mean	Std. D	Relative Weight	t	Sig. (2-tailed)	Rank
1-Workplace hazards	2.0754	12.727	41.50%	-16.047	0.000	4
2-Workplace policies and	3.9529	14.060	79.05%	14.970	0.000	2
3-OHS awareness	4.0830	0.5484	81.65%	21.811	0.000	1
4-Participation in OHS	3.8975	0.5846	77.95%	16.957	0.000	3
Average	**3.502**	**0.3699**	**70.04%**	**14.995**	**0.000**	

- Variable number 3, ranked first, “OHS awareness " had the higher agreement between the respondents with relative weight of (81.6%). This is because this variable is highly practiced in this kind of industries as required by the OHS management systems and International certificates for exporting.
- Variable number 1, ranked last," Workplace hazards “had the lowest agreement between respondents with relative weight of (41.5%). This is because this variable needs a lot and continues training for identifying, controlling and managing workplace hazards and take wise steps to prevent their potential to harm.
- In general, the result shows that there is a high agreement between respondents to OHS regulations with relative weight of (70.04%).

The results in Table 27 contradict with Ayesh, and Habeel (2012), Ewaiwi (2008), Abunawwas (2018), Mahjoob (2014), Tappura (2017) and Ahmad et al. (2016) who found that the total OHS regulations in their researched studies are poor.

It is believed that and as mentioned earlier, this contradiction is coming in the first place from the difference in the nature of the industry, and the high commitment in following the OHS regulations as a mandatory requirement from local and international inspection bodies.

The previous analysis answered on the first research question “What is the degree of implementing the (OHS) regulations in the pharmaceutical industry in Ramallah & Al-Bireh District?", and achieved the first objective “measuring the degree of implementing (OHS) regulations on employees in the pharmaceutical industry in Ramallah & Al-Bireh District.

4.4.2 Job Satisfaction

The job satisfaction questionnaire consisted of twenty questions to study the satisfaction of employees of the pharmaceutical industry. These questions are on the form of Likert scale (five degrees). Table 28 shows the results of job satisfaction.

Table 28: Job Satisfaction

Paragraph	Mean	Std. D	Relative Weight	t	Sig. (2-tailed)	Rank
1-Ability to be busy all the time.	3.71	1.032	74.3%	7.630	0.000	12
2-The opportunity to work alone during periods of work.	3.93	0.805	78.5%	12.715	0.000	7
3-The opportunity to do different things from time to time.	3.89	0.902	77.7%	10.843	0.000	9
4-The opportunity to be a person with a sense of community.	4.08	0.829	81.6%	14.414	0.000	4
5-The way managers handle their employees.	3.98	1.060	79.7%	10.249	0.000	5
6-The main efficiency of direct decision-making.	3.94	0.939	78.9%	11.093	0.000	6
7-The ability to do things does not contradict my conscience.	3.54	1.299	70.8%	4.599	0.000	18
8-The way you provide stable jobs.	3.80	0.881	75.9%	9.970	0.000	10
9-The opportunity to cooperate with others.	4.17	0.746	83.4%	17.349	0.000	1
10-The opportunity to tell what to do.	3.89	0.943	77.9%	10.464	0.000	8
11-The opportunity to use my abilities to do something useful.	4.12	0.767	82.5%	16.174	0.000	3
12-The way the company applies business policy.	3.66	0.878	73.3%	8.355	0.000	16
13-My salary compared to what I do.	2.80	1.246	55.9%	-1.816	0.072	20
14-Upgrade opportunities in this post	3.05	1.252	61.0%	0.434	0.665	19
15-Freedom to use my opinion and my experience.	3.70	0.976	74.1%	7.974	0.000	14
16-The opportunity to use my own ways to perform the work.	3.79	0.874	75.7%	9.943	0.000	11
17-Work environment.	3.71	0.904	74.3%	8.710	0.000	13
18-The way my colleagues deal with each other at work.	3.70	1.002	74.1%	7.774	0.000	15
19-Praise you get when you do a good job.	3.66	1.103	73.3%	6.648	0.000	17
20-Feeling of accomplishment during work.	4.14	0.836	82.8%	15.047	0.000	2
Average	**3.76**	**0.585**	**75.3%**	**16.056**	**0.000**	

- Paragraph number 9, ranked first," The opportunity to cooperate with others "with relative weight of (83.4%). This is because each worker is complementary to the other in terms of duties and rights, cooperation in matters that lead to the achievement of good, and avoiding cooperation in matters that cause harm to others.
- Paragraph number 13, ranked last," My salary compared to what I do "with relative weight of (55.9%). This is because wages not only in this industry, but also in many economic facilities in Palestine are low and just higher than the minimum wage level.
- In general, the result shows that respondents have a high Job Satisfaction with relative weight of (75.3%).

The results in Table 28 are consistent with Yaqubi (2016) in his study to evaluate the effect of the work characteristics on the motivation and job satisfaction for the self-employed, the job satisfaction was with a total average of 78.18 %. The results are also consistent with Hweihi (2008) in his study to see if job satisfaction affects employees desire at work, the job satisfaction was with a total average of 74.27 %. Furthermore, these results are consistent with Nawaf'ah (2018) in his study is to show the impact of job satisfaction on the job loyalty, the job satisfaction was 81.5%. Moreover, the results are consistent with Basheer (2015) in his study to identifying the concept of job satisfaction and determining its causes and the most effective factors on the staff performance, the job satisfaction was 79%.

On the other hand, these results contradicted with Alghanem (2017) in his study to identify the degree of job satisfaction among sports Journalists, the job satisfaction was moderate. Also, they contradict with Muhrez (2018) in his study is to identify the role of training in achieving job satisfaction, and satisfaction degree was 63.33 %. Moreover,

the results are contradicted with Alameen, and Mosawi (2016) in his study is to identify job satisfaction and identify its causes and the importance of the conditions of the work environment and its role in increasing performance. The job satisfaction mean was 2.96. Shrestha (2019) in his study to ascertain the level of job satisfaction and examine it via age groups of school teachers, found that they expressed moderate satisfaction in the job, which also contradicts these results. Rožman, et al. (2017) in his study to check motivation and satisfaction of workers found that the job satisfaction was 61.5%. Furthermore, Tomislav (2013) in his study to see the relationship between conditions and job satisfaction, found that job satisfaction mean was 2.73.

It is believed that this contradiction with these studies is due to the absence of training and providing personal protective equipment (PPE) to workers in the workplace, and not following quality in outcomes, training is one of the important sources in achieving individual satisfaction within the organization. Also, it was found in these studies that not all age groups are encouraged to contribute in providing ideas, thoughts and suggestions, which is considered as a key element in achieving satisfaction between them.

Developing and updating the work environment through the development of a complete system of tools is important to achieve satisfaction, which was not detected in the previous researched studies. Moreover, strengthen the relationship between employees and top management inside and outside the workplace in order to ensure job satisfaction was absent and needs attention to gain higher job satisfaction levels.

The previous analysis answered the second question of this study " What is the degree of job satisfaction between employees in the pharmaceutical industry in Ramallah & Al-Bireh District?", and achieved the second objective:" measuring the degree of job

satisfaction between employees in the pharmaceutical industry in Ramallah & Al-Bireh District".

4.5 Hypotheses Testing and Discussion

4.5.1 Hypothesis 1: There is a significant statistical relationship at ($\alpha \leq 0.05$) between the (OHS) regulations and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.

To test this hypothesis, Spearman correlation test was performed to examine if there is significant statistical relationship between (OHS) regulations and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, and the results are shown in Table 29.

Table 29: Spearman's Correlation test results between job satisfaction and total OHS regulations

			Job Satisfaction
Spearman's rho	**OHS Variables**	**Correlation Coefficient**	0.268**
		Sig. (2-tailed)	0.003
		N	122

The results in Table 29 show that there is a relationship between job satisfaction and OHS Regulations in total, since the p-value is less than 0.05. This is consistent with Awadallah (2012) in his study is to explore the impact of motivation and its role in achieving job satisfaction of employees where he found that there is a relationship between job satisfaction and working environment. Also, the results are consistent with Salim (2009) in his study is to measure the OHS Status in Industrial facilities in Palestine who found that the degree to which workers satisfied when OHS regulations were applied was high. The results are also consistent with Rajhi (2017) in his study is to measure job

satisfaction between employees in Kuwait Press Corporation, where he found that there is a moderate relationship between OHS and job satisfaction. Khadrawi (2014), explored OHS Regulations and its relationship to job satisfaction, and found that there is a relationship between OHS and job satisfaction. Furthermore, Florence, and Amos (2017) studied the effect of OHS on job satisfaction, and found that OHS management practices are determinants of job satisfaction. Moreover, Ria, et al. (2012) measured the influence of OHS on performance with job satisfaction they found that there is a relationship between OHS and job satisfaction.

4.5.1.1 Sub-hypothesis 1: There is a significant statistical relationship at ($\alpha \leq 0.05$) between the Workplace hazards and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.

To test this sub-hypothesis, Spearman correlation test was performed to examine if there is significant statistical relationship between Workplace hazards and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, and the results are shown in Table 30.

Table 30: Spearman Correlation Test between Workplace Hazards and Job Satisfaction

Spearman's rho	Correlation Coefficient	Sig. (2-tailed)
Workplace hazards	-0.127	0.163

** Correlation is significant at the 0.01 level (2-tailed).

The result in Table 30 shows that there is no relationship between workplace hazards and job satisfaction, since the p-value more than 0.05.

This contradicts with Salim (2009), Khadrawi (2014), Ria, et al. (2012) and Florence, and Amos (2017) who found a significant and high relationship between Workplace hazards and Job Satisfaction.

It is believed that these previous studies were conducted in very different industries where workplaces hazards are in minimal conditions and employees are not considering this variable as an important reason for their satisfaction.

4.5.1.2 Sub-hypothesis 2: There is a significant statistical relationship at ($\alpha \leq 0.05$) between the Workplace policies and procedures and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District

To test this sub-hypothesis, Spearman correlation test was performed to examine if there is significant statistical relationship between Workplace policies and procedures and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, and the results are shown in Table 31.

Table 31: Spearman Correlation Test between Workplace Policies and Procedures and Job Satisfaction

Spearman's rho	Correlation Coefficient	Sig. (2-tailed)
Workplace policies and procedures	0.237**	0.009

** Correlation is significant at the 0.01 level (2-tailed).

The result in Table 31 shows that there is a relationship between workplace policies and procedures and job satisfaction, since the p-value less than 0.05.

This is consistent with Salim (2009), Awadallah (2012), Khadrawi (2014), Rajhi (2017), Ria, et al. (2012) and Florence, and Amos (2017) who found that there is a relationship between workplace policies and procedures and job satisfaction.

It is believed that workplace policies and procedures in these industries are not different because the target group of these policies and procedure is the employee and the purpose of setting up these procedures and policies is to keep employees health unharmed and in a good condition.

4.5.1.3 Sub-hypothesis 3: There is a significant statistical relationship at ($\alpha \leq 0.05$) between the OHS awareness and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.

To test this sub-hypothesis, Spearman correlation test was performed to examine if there is significant statistical relationship between OHS awareness and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, and the results are shown in Table 32.

Table 32: Spearman Correlation Test between OHS Awareness and Job Satisfaction

Spearman's rho	Correlation Coefficient	Sig. (2-tailed)
OHS awareness	0.346**	0.000

** Correlation is significant at the 0.01 level (2-tailed).

The result in Table 32 shows that there is a relationship between OHS awareness and job satisfaction, since the p-value is less than 0.05.

This is consistent with Salim (2009), Awadallah (2012), Rajhi (2017), Ria, et al. (2012) and Florence, and Amos (2017) who found that there is a relationship between OHS awareness and job satisfaction. But it contradicts with Khadrawi (2014) who found that there is no a relationship between OHS awareness and job satisfaction.

It is believed that the consistency with the previous studies is reasonable due to the importance of this variable in industry unlike the service sector where is OHS regulation is not fully implemented.

4.5.1.4 Sub-hypothesis 4: There is a significant statistical relationship at ($\alpha \leq 0.05$) between the Participation in OHS and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.

To test this sub-hypothesis, Spearman correlation test was performed to examine if there is significant statistical relationship between participation in OHS and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, and the results are shown in Table 33.

Table 33: Spearman Correlation Test between Participation in OHS and Job Satisfaction

Spearman's rho	Correlation Coefficient	Sig. (2-tailed)
Participation in OHS	0.390**	0.000

** Correlation is significant at the 0.01 level (2-tailed).

The result in Table 33 shows that there is a relationship between participation in OHS and job satisfaction, since the p-value less than 0.05.

This is consistent with Salim (2009), Awadallah (2012), Khadrawi (2014), Rajhi (2017), Ria, et al. (2012) and Florence, and Amos (2017) who found that there is a relationship between participation in OHS and job satisfaction.

It is believed that this consistency is due to the fact that employees will be satisfied when they feel that they are important and have a role in suggesting, giving ideas and contribute in decisions that will monitor, control or reduce hazards.

The previous analysis answered the third question " What is the relationship between implementing the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District?", and achieved the third objective: " testing the relationship between applying the (OHS) regulations (Workplace hazards, Workplace policies and procedures, OHS awareness and Participation in OHS) on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District".

4.5.2 Hypothesis 2: There is a significant statistical effect at ($\alpha \leq 0.05$) of the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.

To test this hypothesis, regression test and equation were performed and the results are shown in Table 34.

Table 34: Regression Test Results between Job Satisfaction and OHS Variables

OHS Variables	Un standardized Coefficients		Standardized Coefficients	t	Sig.	R	R^2	Adju -sted R^2	Std. Error of the Estimate
	B	Std. Error	Beta						
(Constant)	35.171	8.056		4.366	0.000	0.501a	0.251	0.22	9.251
Workplace hazards	-0.066	0.067	-0.080	-0.993	0.323				
Workplace policies and procedures	0.066	0.064	0.088	1.030	0.305				
OHS awareness	0.198	0.098	0.207	2.023	0.045				
Participati-on in OHS	0.275	0.088	0.306	3.127	0.002				

Table 34 shows the regression equation:

Job Satisfaction = 35.17 - (0.066* Workplace hazards) + (0.066 * Workplace policies and procedures) + (0.198 * OHS awareness) + (0.275 * Participation in OHS)

4.5.2.1 Model Adequacy

The following tests were conducted to check if the model fulfills the assumptions of Ordinary Least Squares (OLS) method which is widely used to estimate the parameter of a linear regression model.

- **The Normality of the Dependent Variable**

Job Satisfaction was tested for normality distribution using Shapiro-Wilk test. Results showed that p-value is greater than 0.05, so the dependent variable (Job Satisfaction) follows the normal distribution. Table 35 shows the results of Shapiro-Wilk test.

Table 35: Shapiro-Wilk Test for Job Satisfaction

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Job Satisfaction	0.084	121	0.034	0.987	121	0.283

- **The Linear Relationship between Job Satisfaction and OHS Regulations**

-The partial regression plot in Fig 3 below, shows that there is linear relationship between job satisfaction and Workplace Hazards.

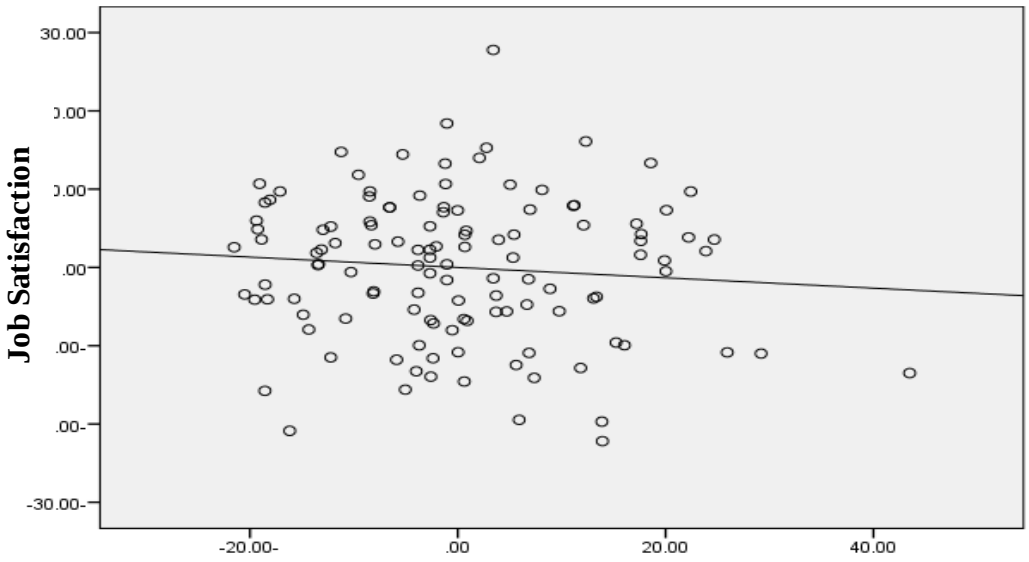

Fig 3: Partial Regression Plot for Job Satisfaction and Workplace Hazards

-The partial regression plot in Fig 4 below, shows that there is linear relationship between job satisfaction and Workplace policies and procedures.

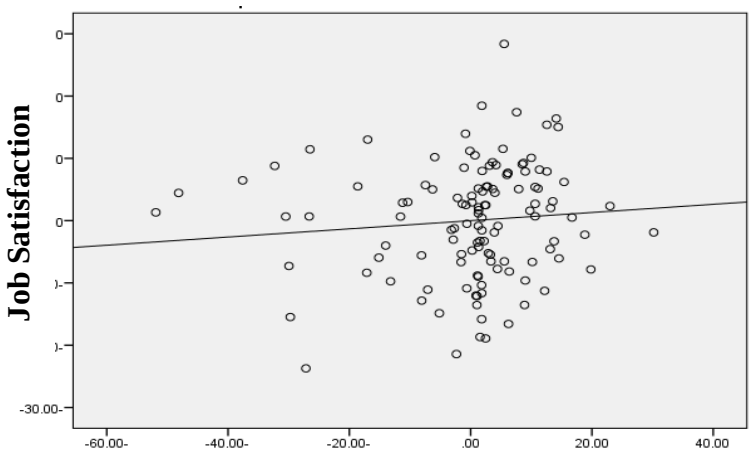

Fig 4: Partial Regression Plot for Job Satisfaction and Workplace Policies and Procedures

-The partial regression plot in Fig 5 below, shows that there is linear relationship between job satisfaction and OHS Awareness.

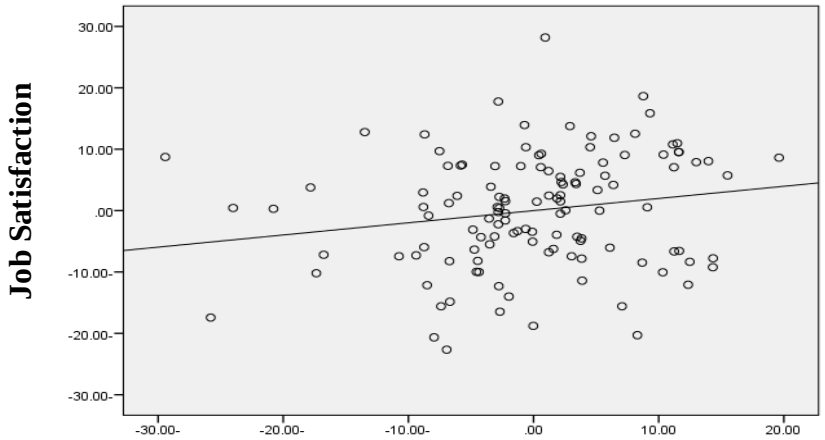

Fig 5: Partial Regression Plot for Job Satisfaction and OHS Awareness

-The partial regression plot in Fig 6 below, shows that there is linear relationship between job satisfaction and Participation in OHS.

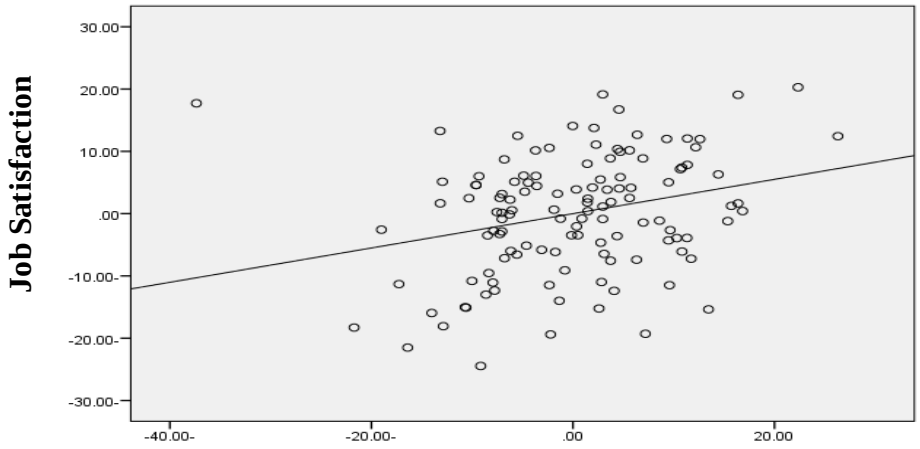

Fig 6: Partial Regression Plot for Job Satisfaction and Participation in OHS

- **The Normality of Error Term (Residuals)**

Fig 7 below shows the histogram of residuals for the dependent variable (job satisfaction), the histogram shows that the error term is normally distributed and the error mean equals to 0 (approximately).

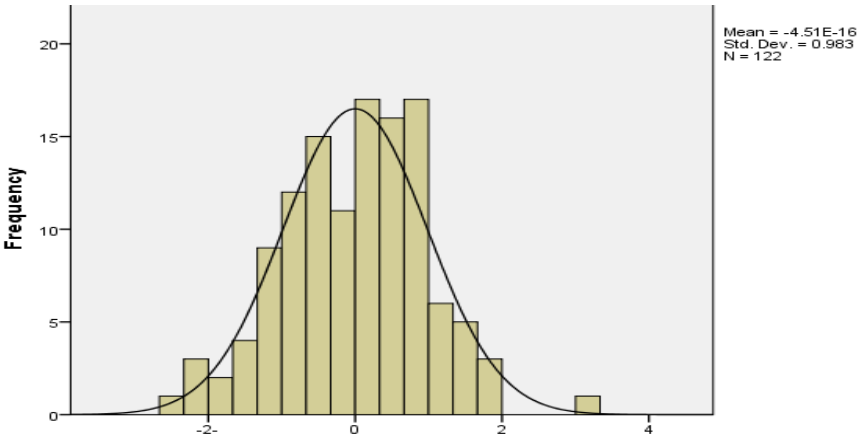

Fig 7: Histogram of Residuals for Job Satisfaction

Fig 8 below shows the plot of residuals for the dependent variable (job satisfaction), the plot shows that the error term has a constant variance since all the values below are around 0 (no heteroscedasticity).

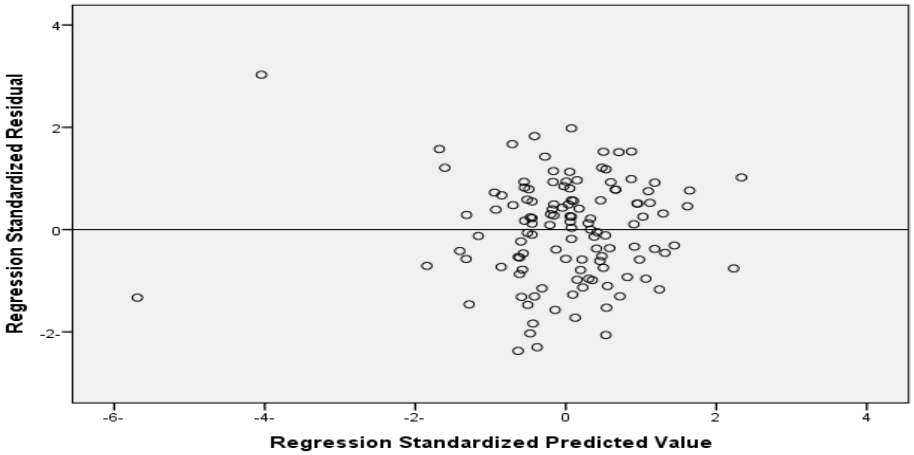

Fig 8: Plot of Residuals for Job Satisfaction

- **Multicollinearity**

The model was tested for Multicollinearity, table 36 below shows that the Variance Inflation Factor (VIF) is less than 5 for all variables, which means that there is no multicollinearity problem in this model.

Table 36: Multicollinearity Test for the Model

Model	Collinearity Statistics	
	Tolerance	VIF
Risk	0.984	1.016
Policies	0.879	1.137
Awareness	0.612	1.635
Participation	0.667	1.499

Conclusion

After conducting the previous tests which are used to check if the model fulfills the assumptions of OLS regression, the results show that the model is correct, since all assumptions are accepted.

Since R-square is equal to 0.25, this means that the variation in independent variables (OHS variables) explains 25% of variation in dependent variable (Job Satisfaction).
From Table 40 and the equation above the researcher conclude that:

1. There is no significant effect from the workplace hazards on job satisfaction.

2. There is no significant effect from workplace policies and procedures on job satisfaction.

3. There is significant effect from OHS awareness on job satisfaction. This relation explains that if the OHS awareness increases by 10%, job satisfaction will increase by around 2%.

4. There is significant effect from participation in OHS on job satisfaction. This relation explains that if the participation in OHS increases by 10%, job satisfaction will increase by 2.75%.

It is believed that participation in OHS had the higher effect on job satisfaction because of the importance of this variable in the opinion of the respondents. Participation in OHS will make them feel good about themselves and give them the chance to be important in the company. OHS awareness came second in its effect on job satisfaction because the awareness process is a long and continues and employees will be happy and satisfied when the top management is talking about future plans for training or awareness. The

employees will departure from the routine tasks and work process to a new and fun time with colleagues.

The previous analysis answered the fourth question "What is the effect of applying the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District?", and achieved the fourth objective: "finding out the effect of applying the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District ".

4.5.3 Hypothesis 3: There are significant statistical differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning (OHS) regulations between employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, experience)?

To test this hypothesis, and since the data was not normally distributed, the non-parametric test using the Mann-Whitney test was used to test if (OHS) regulations differs among gender. The non-parametric test using the Kruskal-Wallis Test was performed to test the main difference of (OHS) regulations by the demographic characteristics (age, educational attainment, job title and experience). The results are shown in Tables 37-41.

- **Gender**

Mann-Whitney test was used to test if (OHS) regulations differs among gender, results are shown in Table 37.

Table 37: Mann-Whitney U Non Parametric Tests Results between OHS Variables and Gender

OHS variable	Mann-Whitney U	Wilcoxon W	Gender		Z	Asymp. Sig. (2-tailed)
			Male	Female		
Workplace Hazards	1831.000	3784.000	41.8%	41.2%	-0.15	0.88
Workplace Policies and Procedures	1750.000	3580.000	78.5%	79.6%	-0.57	0.57
OH Awareness	1454.500	3407.500	83.5%	79.9%	-2.10	0.04
Participation in OHS	1788.000	3741.000	78.3	77.6	-0.37	0.71

Table 37 shows that:

1-There are no significant differences in the answers of the respondents concerning workplace hazards due to gender, since the p-value of the test is greater than 0.05.

This is consistent with Ewaiwi (2008) in her study who found that there is no significant difference concerning workplace hazards due to gender.

It is believed that both males and females are in the same working environment, and perform the same working tasks which cause the similarity in their opinions concerning workplace hazards.

2- There are no significant differences in the answers of the respondents concerning workplace policies and procedures due to gender, since the p-value of the test is greater than 0.05.

This contradicts with Ewaiwi (2008) and Ayesh, and Habeel (2012) in their study who found that there are significant differences in the answers of the respondents concerning workplace policies and procedures due to gender.

This is because workplace policies and procedures in these studies were not successfully implemented as the sample was males working in very dangerous environment, while the females were working in clerical tasks. Workplace policies and procedures are implemented on all employees in the pharmaceuticals companies despite their gender.

3- There are significant differences in the answers of the respondents concerning OH awareness due to gender, since p-value of the test is less than 0.05.

This contradicts with Ewaiwi (2008) in her study who found that there are no significant differences in the answers of the respondents concerning workplace policies and procedures due to gender.

This is because awareness campaigns and spreading knowledge in the pharmaceutical's companies are restricted to travel abroad for several days. The shortage of local institution concerned with OHS awareness make it difficult for women to participate.

4- There are no significant differences in the answers of the respondents concerning participation in OHS due to gender, since the p-value of the test is greater than 0.05.

This is consistent with Ewaiwi (2008) in her study who found that there are no significant differences in the answers of the respondents concerning participation in OHS due to gender.

It is believed that both males and females are in the same working environment, and both participate in OHS because they are together in facing hazards and work accidents, which cause the similarity in their opinions concerning participation in OHS.

- **Age**

Kruskal-Wallis Test was performed to test the main difference of (OHS) regulations by age, results are shown in Table 38.

Table 38: Kruskal Wallis Non Parametric Tests Results between OHS Variables and Age Groups

OHS variable	Age				Chi-Square	df	Asymp. Sig.
	< 29	29-38	39-48	49+			
Workplace Hazards	44.1 %	42.1 %	37.3 %	40.7%	3.868	3	0.276
Workplace Policies and Procedures	79.8 %	78.2 %	77.8 %	80.3%	0.800	3	0.849
OHS Awareness	82.4 %	79.3 %	84.9 %	81.2%	3.237	3	0.356
Participation in OHS	75.3 %	78.2 %	82.3 %	77.4%	7.591	3	0.055

Table 38 shows that:

- There are no significant differences in the answers of the respondents concerning workplace hazards due to Age groups, since the p-value of the test is greater than 0.05.

- There are no significant differences in the answers of the respondents concerning Workplace policies and procedures due to Age groups, since the p-value of the test is greater than 0.05.

- There are no significant differences in the answers of the respondents concerning OHS Awareness due to Age groups, since p-value of the test is greater than 0.05.

- There are no significant differences in the answers of the respondents concerning participation in OHS due to Age groups, since the p-value of the test is greater than 0.05.

This is consistent with Ewaiwi (2008) in her study who found that there are no significant differences in the answers of the respondents concerning workplace hazards, workplace policies and procedures, OHS awareness and participation in OHS due to age groups, and with Ayesh, and Habeel (2012) in his study who found that there are no significant differences in the answers of the respondents concerning workplace policies and procedures due age groups.

It is believed that these consistencies are coming from that all employees despite their ages agree on the importance of the variables of OHS, and their role in preventing accidents.

- **Education Level**

Kruskal-Wallis Test was performed to test the main difference of (OHS) regulations by education level, results are shown in Table 39.

Table 39: Kruskal Wallis Non Parametric Tests Results between OHS Variables and Education Level

OHS variable	Education Level					Chi-Square	df	Asymp. Sig.
	Master	High Diploma	Bachelor	Diploma	Secondary or lower			
Workplace Hazards	35.8%	44.7%	39.1%	39.7%	48.2%	15.964	4	0.003
Workplace Policies and Procedures	73.8%	84.2%	80.1%	75.0%	80.4%	1.444	4	0.837
OHS Awareness	80.5%	86.3%	82.8%	82.8%	79.0%	5.611	4	0.230
Participation in OHS	77.0%	82.5%	79.0%	81.5%	74.1%	5.375	4	0.251

Table 39 shows that:

- There are significant differences in the answers of the respondents concerning workplace hazards due to education level, since the p-value of the test is less than 0.05, which contradicts Ewaiwi (2008), who found that there are no significant differences in the answers of the respondents concerning workplace hazards due to education level.

- There are no significant differences in the answers of the respondents concerning workplace policies and procedures due to education level, since the p-value of the test is greater than 0.05, which contradicts with Ewaiwi (2008) and Ayesh, and Habeel (2012), who found that there are significant differences in the answers of the respondents concerning workplace policies and procedures due to education level.

- There are no significant differences in the answers of the respondents concerning OHS awareness due to education level, since p-value of the test is greater than 0.05, which is consistent with Ewaiwi (2008), who also found that there are no significant differences in the answers of the respondents concerning OHS awareness due to education level.

- There are no significant differences in the answers of the respondents concerning participation in OHS due to education level, since the p-value of the test is greater than 0.05, which is consistent with Ewaiwi (2008), who also found that there are no significant differences in the answers of the respondents concerning participation in OHS due to education level

It is clear from the above table that the differences in the answers of the respondents concerning workplace hazards are in favor of the secondary or low education levels

because this group is found largely in the production departments or cleaning workers that are in direct contact with hazards.

- **Job Title**

Kruskal-Wallis Test was performed to test the main difference of (OHS) regulations by job title, results are shown in Table 40.

Table 40: Kruskal Wallis Non Parametric Tests Results between OHS Variables and Job Title

OHS variable	Job Title								Chi-Square	df	Asymp. Sig.
	Department Manager	Unit Head	Assistant Director	Supervisor	Laboratory Technician	Production Technician	Maint. tech.	Others			
Workplace Hazards	32.4%	39.0 %	34.1%	38.8 %	40.6%	50.2%	37.3 %	40.6 %	22.340	7	0.002
Workplace Policies and Procedures	83.8%	78.9 %	83.1%	73.2 %	74.5%	76.2%	64.2 %	83.9 %	8.289	7	0.308
OHS Awareness	85.7%	83.2 %	81.9%	78.8 %	81.7%	80.9%	80.0 %	81.9 %	2.355	7	0.938
Participation in OHS	81.4%	80.0 %	81.1%	73.6 %	79.0%	75.7%	85.0 %	78.1 %	4.003	7	0.779

Table 40 shows that:

- There are significant differences in the answers of the respondents concerning workplace hazards due to job title, since the p-value of the test is less than 0.05, which is consistent with Ewaiwi (2008), who found that there are significant differences in the answers of the respondents concerning workplace hazards due to job title.

- There are no significant differences in the answers of the respondents concerning workplace policies and procedures due to job title, since the p-value of the test is greater than 0.05, which is consistent with Ewaiwi (2008) who found that there are no significant

differences in the answers of the respondents concerning workplace policies and procedures due to job title.

- There are no significant differences in the answers of the respondents concerning OHS awareness due to job title, since p-value of the test is greater than 0.05, which is consistent with Ewaiwi (2008) who found that there are no significant differences in the answers of the respondents concerning OHS awareness due to job title.

- There are no significant differences in the answers of the respondents concerning participation in OHS due to job title, since the p-value of the test is greater than 0.05, which is consistent with Ewaiwi (2008) who found that there are no significant differences in the answers of the respondents concerning participation in OHS due to job title.

The above table shows that the differences in the answers of the respondents are in favor of production technicians because this group is found largely in the production departments and in direct contact with hazards, and practicing very difficult and dangerous tasks. On the other hand, managers practice their duties in safer condition in their offices.

- **Experience**

Kruskal-Wallis Test was performed to test the main difference of (OHS) regulations by experience, results are shown in Table 41.

Table 41: Kruskal Wallis Non Parametric Tests Results between OHS Variables and Experience

OHS variable	Experience					Chi-Square	df	Asymp. Sig.
	<1	1-5	6-10	11-15	16+			
Workplace Hazards	44.3%	42.6%	44.1%	39.8%	39.1%	1.858	4	0.762
Workplace Policies and Procedures	85.3%	78.5%	81.1%	79.4%	77.4%	1.902	4	0.754
OHS Awareness	81.0%	82.0%	81.2%	83.0%	80.6%	0.090	4	0.999
Participation in OHS	82.7%	76.4%	79.5%	80.5%	76.8%	2.518	4	0.641

Table 41 shows that:

- There are no significant differences in the answers of the respondents concerning workplace hazards due to experience, since the p-value of the test is greater than 0.05, which contradicts Ewaiwi (2008) who found that there are significant differences in the answers of the respondents concerning workplace hazards due to experience.

- There are no significant differences in the answers of the respondents concerning workplace policies and procedures due to experience, since the p-value of the test is greater than 0.05, which is consistent with Ayesh, and Habeel (2012) who found that there are no significant differences in the answers of the respondents concerning workplace policies and procedures due to experience.

- There are no significant differences in the answers of the respondents concerning OHS awareness due to experience, since p-value of the test is greater than 0.05., which contradicts Ewaiwi (2008) who found that there are significant differences in the answers of the respondents concerning OHS awareness due to experience.

- There is no significant mean difference in Participation in OHS and Experience, since the p-value of the test is greater than 0.05.

It is believed that fresh employees tend to participate more than other employees as they want to prove themselves in the work, but their awareness and experience is less than employees with 11-15 years in the work who tend to know more about hazards and awareness.

The previous results answered the fifth question "Are there statistically significant differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning (OHS) regulations among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience)?" and achieved the fifth objective: " testing the differences in the answers of the respondents concerning (OHS) regulations among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience)".

4.5.4 Hypothesis 4: There are significant statistical differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, experience)?

To test this hypothesis, and since the data was not normally distributed, the non-parametric test using the Mann-Whitney test was used to test if job satisfaction differs among gender. The non-parametric test using the Kruskal-Wallis Test was performed to test the main difference of job satisfaction by the demographic characteristics (age, educational attainment, job title and experience). The results are shown in Tables 42-46.

- **Gender**

Mann-Whitney test was used to test if job satisfaction differs among gender, results are shown in Table 42.

Table 42: Mann-Whitney Non Parametric Tests Results between Job Satisfaction and Gender

Variable	Mann-Whitney U	Wilcoxon W	Gender Relative Wight		Z	Asymp. Sig. (2-tailed)
			Male	Female		
Job Satisfaction	1307.000	3260.000	78.0%	72.6%	-2.83	0.00

Table 42 shows that there are significant differences in the answers of the respondents concerning job satisfaction due to gender, since p-value of the test is less than 0.05.

This result contradicts with Yaqubi (2016) and Hweihi (2008), who found that there are no significant differences in the answers of the respondents concerning job satisfaction due to gender.

The difference above are in favor of males, because they are satisfied with their salaries more than females, and their chance in promotions is higher than females.

- **Age**

Kruskal-Wallis Test was performed to test the main difference of job satisfaction by age, results are shown in Table 43.

Table 43: Kruskal-Wallis Non Parametric Tests Results between Job Satisfaction and Age

Variable	Age Relative Wight				Chi-Square	df	Asymp. Sig.
	< 29	29-38	39-48	49+			
Job Satisfaction	73.4%	74.0%	76.7%	78.5%	2.386	0.496	3.6694

Table 43 shows that there are no significant differences in the answers of the respondents concerning job satisfaction due to age groups, since the p-value of the test is greater than 0.05.

This result is consistent with Hweihi (2008), Yaqubi (2016) and Alghanem (2017) who found that there are no significant differences in the answers of the respondents concerning job satisfaction due to age groups .While it contradict with Shrestha (2019), Rožman, et al. (2017) and Rajhi (2017) who found thatthere are significant differences in the answers of the respondents concerning job satisfaction due to age groups.

It is believed that older employees are the most satisfied in the workplace, because they took their chance in the promotion, and chances in getting a higher rank is rare and therefore they know that this is the best place to be in.

- **Education Level**

Kruskal-Wallis Test was performed to test the main difference of job satisfaction by education level, results are shown in Table 44.

Table 44: Kruskal-Wallis Non Parametric Tests Results between Job Satisfaction and Education Level

Variable	Education Level Relative Wight					Chi-Square	df	Asymp. Sig.
	Master	High Diploma	Bachelor	Diploma	Secondary or lower			
Job Satisfaction	77.4%	71.5%	75.2%	81.9%	72.0%	13.740	0.008	3.8682

Table 44 shows that there are significant differences in the answers of the respondents concerning job satisfaction due to educational level ,since p-value of the test is less than 0.05, and this is consistent with Rajhi (2017) and Muhrez (2018) who found that there are significant differences in the answers of the respondents concerning job satisfaction due to educational level ,and contradict with Hweihi (2008), Yaqubi (2016) and Alghanem (2017) who found that there are no significant differences in the answers of the respondents concerning job satisfaction due to educational level.

It is believed that the promotions opportunities of the diploma holders are limited, and there is limited ambition to upgrade or reach a higher position unlike those with bachelors and higher qualifications who aspire to more promotion opportunities to reach a higher rank.

- **Job Title**

Kruskal-Wallis Test was performed to test the main difference of job satisfaction by job title, results are shown in Table 45.

Table 45: Kruskal-Wallis Non Parametric Tests Results between Job Satisfaction and Job Title

Variable	Job Title-Relative Wight								Chi-Square	df	Asymp. Sig.
	Dep. Manager	Unit Head	Assis. Direct	Super-visor	Lab. Tec	Pro. Tec	Main. Tec	Others			
Job Satisfaction	83.4%	78.6 %	79.7 %	70.6 %	70.6 %	78.0 %	77.0 %	72.3 %	16.488	0.021	4.1714

Table 45 shows that there are significant differences in the answers of the respondents concerning job satisfaction due to job title ,since p-value of the test is less than 0.05, and contradicts with Hweihi (2008) who found that there are no significant differences in the answers of the respondents concerning job satisfaction due to job title.

It is believed that top management are the most satisfied group in the facility due to the higher salaries, position and incentives. Laboratory technicians and supervisor have the lowest degree of satisfaction because their position as an intermediate contact point between production and management which makes their tasks and work more difficult.

- **Experience**

Kruskal-Wallis Test was performed to test the main difference of job satisfaction by experience, results are shown in Table 46.

Table 46: Kruskal-Wallis Non Parametric Tests Results between Job Satisfaction and Experience

Variable	Experience Relative Wight					Chi-Square	df	Asymp. Sig.
	<1	1-5	6-10	11-15	16+			
Job Satisfaction	82.8%	72.7%	74.3%	77.3%	76.9%	6.749	0.150	4.1400

Table 46 shows that there are no significant differences in the answers of the respondents concerning job satisfaction due to experiences, since the p-value of the test is greater than 0.05, and this is consistent with Rajhi (2017), Hweihi (2008), Yaqubi (2016) and Alghanem (2017) who found that there are no significant differences in the answers of the respondents concerning job satisfaction due to experiences, and contradict with Muhrez (2018) who found that there are significant differences in the answers of the respondents concerning job satisfaction due to experiences.

It is believed that newly recruited employees can be satisfied with their work as well as for the old ones, as a result of their personal conviction regardless of the length of their service, which may result from the degree of accommodation and adaptation of the individual.

The above results answered the sixth question, "Are there statistically significant differences at ($\alpha \leq 0.05$) in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience)?" and achieved the sixth objective ," testing the differences in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience)".

4.6 Summary

This chapter analyzed the paragraphs of the study instrument (questionnaire). The researcher interpreted the results and linked them to previous studies in terms of consistency or contradiction.

Chapter Five

Conclusions and Recommendations

5.1 Overview

In this study, the impact of (OHS) regulations and their effect on job satisfaction among workers in pharmaceutical industry in Ramallah & Al-Bireh was discussed through reviewing the literature and collecting data using a questionnaire prepared for this purpose. After the statistical analysis of the questionnaire and the interpretation of the results and linking them to previous studies, the study reached a set of findings and recommendations presented in this chapter. Finally, a group of suggestions were offered for further future studies.

5.2 Conclusions

This chapter presents the results of the study classified as follows: results of the study related to the independent variable (OHS regulations), results related to dependent variable (job satisfaction),results related to demographic variables, results related to testing the hypotheses, results related to effect testing between the variables and results related to achieving the objectives.

5.2.1 Results Related to the Independent Variable (OHS regulations)

-The result shows that there is a **high** agreement between workers in pharmaceutical industry in Ramallah & Al-Bireh concerning OHS regulations with relative weight of (70.04%).

-The result shows that there is a **low** agreement between workers in pharmaceutical industry in Ramallah & Al-Bireh concerning workplace hazards with a relative weight of (41.5%).

-The result shows that there is a **high** agreement between workers in pharmaceutical industry in Ramallah & Al-Bireh concerning workplace policies and procedures with relative weight of (79%).

-The result shows that there is a **high** agreement between workers in pharmaceutical industry in Ramallah & Al-Bireh concerning OHS awareness with relative weight of (81.6%).

-The result shows that there is a **high** agreement between workers in pharmaceutical industry in Ramallah & Al-Bireh concerning participation in OHS with relative weight of (77.9%).

5.2.2 Results Related to the Dependent Variable (Job Satisfaction)

-The result shows that there is a **high** level of job satisfaction between workers in pharmaceutical industry in Ramallah & Al-Bireh with relative weight of (75.3%).

5.2.3 Results Related to Testing the Hypotheses

5.2.3.1 Results Related to Testing the First Main Hypothesis and its Sub-hypotheses

-The result shows that there is a significant statistical relationship at ($\alpha \leq 0.05$) between the (OHS) regulations and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, with a correlation coefficient of (0.268).

-The result shows that there is no significant statistical relationship at ($\alpha \leq 0.05$) between workplace hazards and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, with a correlation coefficient of (-0.127).

-The result shows that there is a significant statistical relationship at ($\alpha \leq 0.05$) between workplace policies and procedures and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, with a correlation coefficient of (0.237).

-The result shows that there is a significant statistical relationship at ($\alpha \leq 0.05$) between OHS awareness and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, with a correlation coefficient of (0.346).

-The result shows that there is a significant statistical relationship at ($\alpha \leq 0.05$) between participation in OHS and job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District, with a correlation coefficient of (0.390).

5.2.3.2 Results Related to Testing the Second Hypothesis

-The result shows that there is a significant statistical effect at ($\alpha \leq 0.05$) of the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District. Since R-square is equal to 0.25, this means that the variation in independent variables (OHS variables) explains 25% of variation in dependent variable (Job Satisfaction).

-The result shows that there is no significant effect from the workplace hazards on job satisfaction.

-The result shows that there is no significant effect from workplace policies and procedures on job satisfaction.

-The result shows that there is significant effect from OHS awareness on job satisfaction. This relation explains that if the OHS awareness increases by 10%, job satisfaction will increase by around 2%.

-The result shows that there is significant effect from participation in OHS on job satisfaction. This relation explains that if the participation in OHS increases by 10%, job satisfaction will increase by 2.75%.

5.2.3.3 Results Related to Testing the Third Hypothesis

-The result shows that there are no significant statistical differences in the answers of the respondents concerning workplace hazards, workplace policies and procedures and Participation in OHS due to gender, and significant statistical differences existed concerning OHS awareness in favor of males (83.5%), females (79.9%).

-The result shows that there are no significant statistical differences in the answers of the respondents concerning workplace hazards, workplace policies and procedures, OHS awareness and participation in OHS due to age groups.

- The result shows that there are no significant statistical differences in the answers of the respondents concerning workplace policies and procedures, OHS awareness and participation in OHS due to education level, and significant statistical differences existed concerning workplace hazards in favor of the secondary and lower education level (48.2 %).

- The result shows that there are no significant statistical differences in the answers of the respondents concerning workplace policies, OHS awareness and Participation in OHS due to job title of the employees and significant statistical differences existed concerning workplace hazards due to job title of the employees in favor of production technician (50.2%).

-The result shows that there are no significant statistical differences in the answers of the respondents concerning workplace hazards, workplace policies and procedures, OHS awareness and participation in OHS due to experience of employees.

5.2.3.4 Results Related to Testing the Fourth Hypothesis

-The results show significant statistical differences in the answers of the respondents concerning job satisfaction due to gender of employees in favor of males (78%), females (72.6%). Significant statistical differences existed due to the education level of the employees in favor of Diploma holders (81.9%). Furthermore, significant statistical differences existed due to the job title of the employees in favor of department manager (83.4%).

The results show no significant statistical differences in the answers of the respondents concerning job satisfaction due to age group and the experience of the employees.

Table 45 shows how the objectives of the study were accomplished.

Table 47: The Results of Achieving the Objectives of the Study

Objective	Achieved?	Through
1-Recognize the level of perception and application of the (OHS) regulations on employees in the pharmaceutical industry in Ramallah & Al-Bireh District.	Yes	OHS regulations analysis in tables 29,30,31,32,33
2- Highlight and measuring job satisfaction degree between employees in the pharmaceutical industry in Ramallah & Al-Bireh District.	Yes	Job satisfaction analysis in table 34
3-Identifying the relationship between applying the (OHS) regulations (Workplace hazards, Workplace policies and procedures, OHS awareness and Participation in OHS) on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.	Yes	Testing the 1st hypothesis in tables 35,36,37,38,39
4-Identifying the effect of applying the (OHS) regulations on job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District.	Yes	Testing the 2nd hypothesis in table 40
5-Determining the statistically significant differences in the answers of the respondents concerning (OHS) regulations among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience).	Yes	Testing the 3rd hypothesis in tables 41,42,43,44,45
6-Determining the statistically significant differences in the answers of the respondents concerning job satisfaction among employees in the pharmaceutical industry in Ramallah & Al-Bireh District related to the demographic variables (Gender, age, degree, job title, and experience).	Yes	Testing the 4th hypothesis in tables 46,47,48,49, 50
7-Providing useful recommendations for top management in the pharmaceutical industry, researchers and those interested in this subject.	Yes	Recommendations offered by the researcher in tables 52,53,54

5.3 Summary of Conclusions

This study showed that there is a high agreement among employees in the pharmaceutical industry in Ramallah and Al-Bireh District concerning OHS regulations,

and high level of job satisfaction between workers. Also, this study showed that there is a significant statistical relationship between the (OHS) regulations and job satisfaction, and a significant statistical effect of the (OHS) regulations on job satisfaction among employees.

This study concluded that increasing both the employee's participation in OHS and the OHS awareness between employees, will increases job satisfaction.

5.4 Recommendations

Based on the results of the study, a number of specific recommendations were proposed to strengthen the dimensions of OHS regulations and enhance job satisfaction among the owners of the pharmaceuticals companies in Ramallah and Al-Bireh District, and general recommendations for the governmental bodies in Palestine.

Tables 46, 47, 48 illustrate recommendations resulted from the study.

Table 48: Recommendations for the Governmental Bodies in Palestine

Civil Defense	-Formation of intensive courses and workshops to increase awareness of the concept of OHS among the community groups.
	-The formation of a committee by the Civil Defense in partnership with the inspectors of the Ministry of Labor for inspection and control of workshops.
Engineers Association	-Implementing the decision of the Council of Ministers to adopt the Jordanian National Code of Building until the preparation of the Palestinian code.
	-Preparation of a procedural guide for Palestinian OHS.
	-Work on the preparation of the Palestinian national code of construction.
	-Qualifying engineers and supervisors to manage the OHS file as best.
	-Implement community awareness programs on the importance of these measures.

The Palestinian Federation of Insurance Companies and the Palestinian Capital Market Authority	-Adopting the development of an incentive and deterrent system in addition to the legislative and awareness measures to enhance the OHS of enterprises.
	-Include the control measures implemented by the Palestinian Capital Market Authority over the entities under its supervision.
	-Obtaining the certificate of OHS supervisors certified by the Ministry of Labor in this regard.
	-The Ministry of Labor shall make any observations available to the Palestinian Capital Market Authority or the Palestinian Federation of Insurance Companies.
	-Report any possible deficiencies in the rules of OHS of any of the relevant bodies of the work of the Commission and the Union.
	-Exchange of information and data between the Ministry of Labor, the Palestinian Capital Market Authority and the Palestinian Federation of insurance companies regarding OHS, including data on the establishment of business establishments and the results of the reports of inspectors of the Ministry of Labor.
Environmental Quality Authority	-The teams of the Environmental Quality Authority shall ensure the provision of sanitary and OHS tools and facilities in the places of work. They shall supervise, along with other competent authorities, the safety and safety precautions within the industrial establishments. They shall take samples and perform tests to ascertain the quality of Conditions of work environment within industrial establishments.
	-The Environmental Quality Authority, under the terms of the EIA studies, requires the provision of public health and safety supplies within the facilities.
Ministry of Labor	-Promoting a culture of OHS in partnership and cooperation with the relevant authorities.
	-Development of occupational health services.
	-Developing documentation and recording of work injuries.
	-Enforcement of the law on committees and supervisors of OHS.
	-Amend the Palestinian labor law in terms of aspects of OHS.

Table 49: Recommendations For the Top Management in the Pharmaceutical's Companies

Workplace Hazards	-Adopting or developing risk management in the workplace, which is process of measuring and assessing risks and developing strategies for managing them. These strategies involve transferring risk, avoiding it, minimizing its negative effects and accepting some or all of its consequences.
Workplace Policies & Procedures	-Increasing the regular communication between staff and management on safety issues.
	-Providing the required OHS training in the workplace when the jobs are changed or when new methods are used.
	-Considering the OHS in the workplace as important as quality and production.
OHS Awareness	-Providing a clear vision to employees about the employers' rights and responsibilities regarding OHS in the workplace.
	-Increasing the knowledge of the employees to help them answer any OHS issues in the workplace.
Participation in OHS	-Giving employees freedom to express concerns or make suggestions about health and safety in the workplace.
	-Give employees enough time to safely complete their tasks.
Job Satisfaction	-Increasing the employees' participation in OHS, because when participation in OHS increases by 10%, job satisfaction between employees will increase by 2.75%.
	-Increasing the OHS awareness between employees, because when OHS awareness increases by 10%, job satisfaction between employees will increase by around 2%.
	-Reviewing salaries slips and make a balance between the salaries compared to what employees do.
	-Upgrading the promotions policy and make a fair and reasonable HR system.
	-Developing incentives policy to encourage employee when they do a good job.
	-Encouraging employees to spread a culture full of harmony and cooperation.
	-Encouraging employees to feel free to use their opinions and experiences.

Table 50: Recommendations for the Employees in the Pharmaceutical's Companies

Employees in the pharmaceutical's companies	Participate in courses and workshops to increase awareness of the concept of OHS.
	Report any possible deficiencies in the rules of OHS to the top management.
	The employees should feel free to express their opinion and experience and exchange thoughts, ideas, and vision with colleagues and manager.
	The employees should take enough time to safely complete their tasks.
	The employees should ask for their rights and responsibilities concerning OHS if they were unclear.

5.5 Future Studies

Based on the previous studies, analysis and discussion of the results of this study and analysis of its data, it is recommended to study OHS regulations relationship to other variables that are related to profit and cost. The idea is to connect other variables of OHS with other quality indicators.

References

- Abbas, S. (2003). Human Resources Management, First Edition, Wael Publishing House, Amman.
- Abdelhamid, T. (2000). Identifying root causes of construction accidents. *Journal of Construction Engineering and Management* , 126:52–60.
- Abdulbaqi, S. (2005): "Human resources in terms of scientific and practical," UH, Egypt.
- Abel, R. (2018). Influence of Employee Benefits on Employee Satisfaction: A Case of Five Stars Hotels in Nairobi.2018.
- Abu Hantash, A. (1989) job satisfaction among employees of faculties teaching in Jordan an Analytical Study, Unpublished Master Thesis, University of Jordan, Amman.
- Abunawwas, O. (2018). The impact of applying occupational safety and health systems on employees' performance, Journal of Human Development and Education for specialized Research (JHDESR) Vol: 4, No: 2, 2018.
- Aghbari, A. (2002). Job Satisfaction of a Sample of Directors of General Education Schools in the Eastern Region (Field Study). Journal of Gulf and Arabian Peninsula Studies, p. 109 (197 169). Scientific Publishing Council, Kuwait University.
- Ahmad, I., Sattar, A. and Nawaz, A. (2016). OHSin Industries in Developing World. *Gomal Journal of Medical Sciences*. 14. 223-228.
- Al-Adaily, N. (1981). Job Satisfaction a field study of attitudes and attitudes of employees of government agencies in Riyadh, Saudi Arabia. Institute of Public

Administration. Master's degree in Administrative Psychology from the State University of California.

- Alameen, B. and Mosawi, Y. (2016). The impact of job satisfaction on human resources performance.
- Alaqi, M. (1981). Management An analytical study of functions and administrative decisions, Jeddah.
- Albadrani, B. (2008). *Values of the organizational culture prevailing in the secondary schools for boys in Medina and their relation to the job satisfaction of the teachers from their point of view*. Unpublished Master Thesis. Department of Educational Administration and Planning, Faculty of Education, Umm Al-Qura University, Makkah.
- Alharbi, H. (1994). *Job Satisfaction and its Relation to Scientific Productivity in the Faculty Members of King Saud University*. Master Thesis, Educational Administration Department, College of Education, King Saud University, Riyadh.
- Alhariri, M. (2012) *Human Resource Management*, Dar Al-Hamed for Publishing and Distribution, Oman
- Alhunaiti, I. (2000) An Analytical Study of Job Satisfaction among Faculty Members of the Faculty University of Jordan, Master Thesis, Jordan University.
- Alghanem, M. (2017) Job Satisfaction among Sports Journalists in the State of Palestine. An-Najah University Journal for Research (Human Science) Volume 32 (4).
- Al-Mishaan, A. (1993). Studies on Gender Differences in Professional Satisfaction, Dar Al Qalam for Publishing and Distribution.), Kuwait.

- Alor, F. (1999) Industrial Supervision and Organization, Dar Safaa Publishing and Distribution, Amman.
- Alqous, S. (1999). The social and occupational determinants of the level of job satisfaction among teachers in Riyadh city. Master thesis. Department of Social Studies. King Saud University, Riyadh.
- Al-Rashidi, M. (2006) how important is the activation of self-defense teams in industrial establishments, (Master Thesis) Naif Arab University for Security Sciences, Riyadh.
- Al-Ruwaili, N. (2002). Job Satisfaction of Principals and Directors of Government General Education Schools in Northern Border Region. Field Study. Master Thesis. Department of Educational Administration and Planning, College of Education, King Saud University.
- Alsharaidieh, S. (2010): Job Satisfaction Theory Frameworks and Practical Applications, First Edition, Dar Al Safa Publishing and Distribution, Amman.
- Andrade C. (2018). Internal, External, and Ecological Validity in Research Design, Conduct, and Evaluation. Indian journal of psychological medicine, 40(5), 498–499. doi: 10.4103/IJPSYM.IJPSYM_334_18
- Aqeelah, M. (2003) Modern Management of Occupational Safety, Dar Safa for Publishing and Distribution, 2, Page 128, Amman.
- Arab Training and Publishing Group. (2014) Job Satisfaction and Advancement of Professional Work Arab Group for Training and Publishing.
- Arabiyat, A., and Budoor, M., (2003) Safety Management, Second Edition, Amman, Safety Institute Occupational Health

- Ashtewy, M. (2003) Planning and Management of the Workshop, Training of Trainers Institute, Ramallah.
- Awadallah, M. (2012): The impact of motivation and its role in achieving job satisfaction of employees. Thesis in Master of Business Administration.
- Aydogdu, S. and Asikgil, B. (2011). An Empirical Study of the Relationship among Job Satisfaction: Organizational Commitment and Turnover Intention. *International Review of Management and Marketing*, Vol. 1, No. 3, pp. 43-53.
- Ayesh, A. and Habeel, W. (2012) Evaluating Effectiveness of Occupational Safety and Health Measures in the Scientific Laboratories in the Palestinian Universities in Gaza Strip Journal of the Islamic University for Economic and Administrative Studies.
- Basheer, Y. (2015). Impact of Employees Job Satisfaction on performance in the Higher Education Institutions.
- Bdeiwi, M. (2007). Job Satisfaction and Effective Leadership, Saudi Arabia Magazine.
- Bigliardi, B., Dormio, A., Galati, F. and Schiuma, G. (2012), "*The impact of organizational culture on the job satisfaction of knowledge workers*", VINE, Vol. 42, No. 1, pp. 36-51.
- British Standards Institute (2004).
- British Standards Institute (2007).
- British Standards Institute (2019).
- Chomley, P. (2014). The relationship between knowledge sharing and workplace innovation in a transnational corporation: a behavioral perspective.
- Civil Defense Law No. 3, (1998), article 16.

- CLSI. (2002). Method Comparison and Bias Estimation Using Patient Samples (EP9-A2). Clinical and Laboratory Standards Institute. Communication and Construction Safety Climate in China. KSCE Journal of Civil communication. Journal of Safety Research, 41(5):399–406.
- Connelly, L. (2008). Pilot studies. Medsurg Nursing, 17(6), 411-2. (2010, October). Improving construction site safety through leader-based verbal safety.
- David, K., and Lynn, J. (2005) Green in the go, A pocket guide to green productivity, Asian Productivity Organization, Hirakawa-choDai-ichiSeimel Bldg., 2F,1-2-10, Hirakawacho, Chiyoda-ku, Tokyo, 102-0093 Japan.
- Dakhil Allah, D. (1995). Introductions to an academic organization. King Saud University Journal, Educational Sciences and Islamic Studies.
- Decision of the Council of Ministers No. 49 for the year 2004 on the regulation of prevention of workers from the dangers of work and occupational diseases
- Decision of the Council of Ministers No. 25, (2010), article 17.
- Decision of the Council of Ministers No. 9, (2012), article 39.
- Decision of the Council of Ministers No. 9, (2012), article 66.
- Decision of the Council of Ministers No. 12, (2016), article 5.
- Decision of the Council of Ministers No. 12, (2016), article 13.
- E'mayyan, M. (2005). Organizational Behavior in Business Organizations. Amman.
- Environmental Quality Authority Law No. 7, (1999), article 20.
- Ewaiwi, K. (2008). The Reality of Industrial Safety and Range of its Effect on Workers' Performance at Private Industrial Sector Plants in South West Bank. Master Thesis.Hebron University

- Eweida, H. (2008). The Effect of Job Satisfaction on Organizational Loyalty among Employees in Palestinian NGOs - Gaza Governorates. Islamic University of Gaza
- Faith, K. (2015). Enhancing Job Motivation to improve Employee Performance. Vaasan Ammattikorkeakoulu University Of Applied Sciences :Master in International Business
- Florence, S., and Amos, A.(2017) Effect of Selected Occupational Health and Safety Management Practices on Job Satisfaction of Employees in University Campuses in Nakuru Town, Kenya. Journal of Human Resource Management. Vol. 5, No. 5, pp. 70-77.
- Jamil, H. (1986) The Heat and its Impact on the Health of the World, Arab Institute for Labor Culture and Research. Working Series (11), Baghdad.
- Jerjawi, Z. (2010). "Methodological Rules for Building the Questionnaire", Al-Jarrah Press, Second Edition, Palestine.
- General Directorate of Inspection & Work Protection. (2016). Yearly Report. Ramallah, MOL.
- Hall, H. (2001). Input-friendliness: motivating knowledge sharing across intranets*. Journal of information science ،27 (3)، 139-146.
- Hanafi, A. (2002) Organizational Behavior and Human Resources Management, Cairo, Dar Al-Jamaa New Publishing.
- Hannah, R. and Max, R. (2019) "Air Pollution". Published online at OurWorldInData.org. Retrieved from: 'https: //ourworldindata.org/air-pollution'.
- Hassan, M., Aksel, I., Nawaz, M. S., and Shaukat, S. (2016). Knowledge Sharing Behavior of Business Teachers of Pakistani Universities: An Empirical

Testing of Theory of Planned Behavior. European Scientific Journal ،ESJ ، 12(13).

- Haydar, I. (2005). Job Satisfaction with Health Sector Workers in Riyadh (Field Research). Institute of Public Administration.
- Hayes, B. (1998). 'Measuring Perseptions o f Workplace Safety: Development and Validation o f the Work Safety Scale. *Journal of Safety Research* , 145-161.
- Health Law No. 20, (2004), article 32.
- Helmi, A. and El Afshouk, A. (2000). Occupational Safety & Health, Cairo, Dar Al Kotob Scientific Publishing
- Hindawi, F. (1994). Occupational Safety and Security Policies and Reality Proposals for Development, Journal General Administration, No. 82.
- Hweihi, M. (2008). The impact of factors causing job satisfaction on the desire of employees to Continue in work: Case Study of the Union of Health Work Committees in the Gaza Strip.
- Iancu, D. and Badea, D. (2015). Perspectives on Using Theory Porter-Lawler Student Motivation Military. International conference Knowledge-Based Organization. 21. 10.1515/kbo-2015-0034.
- Ibn Manzour, (1956). The Arab tongue, Maj. Beirut.
- ILO. (2007). safe and healthy workplaces: Decent work is a reality. International Labor Office, Geneva.
- ILO. (2007) ILOLEX database on international labor standards. International Labor Organization.
- ILO. (2016). Labor Inspection: What it is and what it does. International Labor Organization. Retrieved from http: www.ilo.org.

- ILO. (2016). Safety and health at work. International Labor Organization. Retrieved from http: www.ilo.org.
- Instructions of the Minister of Labor No. 3, (2005) concerning the maximum annual dose allowed for workers working in ionized rays.
- Instructions of the Minister of Labor No. 4, (2005) concerning safe levels of noise in the workplace.
- Instructions of the Minister of Labor No. 5, (2005) concerning safe levels of lighting intensity in the workplace.
- Instructions of the Minister of Labor No. 6, (2005) concerning the safe levels of temperatures at workplaces.
- Khadrawi, B. (2014) the OHS Regulations and Its Relationship to Job Satisfaction: Master Thesis, M. Khdier University, Algeria.
- Khattab, A. (1998). Organizational Affiliation and Job Satisfaction: A Field Study on Saudi Women Workers, Journal of Administrative Sciences, p. 13. KSU: Riyadh.
- Khdier, I. (2015). The Effect of Safety Culture as a Moderator Variable of the Relationship between Safety Climate and Safety Commitment on the Safety behavior in the Oil Products Distribution Company.
- Kusku, F. (2003).“Employee Satisfaction in Higher Education: The Case of Academic and. *Career Develpment International* , pp 347-356.
- Loraine, B., Christina, H. and Malcolm, T. (1945). How to research .2nd ed. Library of Congress Cataloging-in-Publication Data Blaxter.
- Luthans, F. (2011). *Organizational behavior*: An Evidence-Based Approach (12 Ed.). McGraw-Hill. New York

- Maher, A. (2013) *Organizational Behavior*: Skills Building Approach, the University House for Printing, Publishing and Distribution, Alexandria.
- Mahjoob, A. (2014). The Effect of Age and occupation on the Type and the Number of workers injuries in construction sector in Iraq.
- Mallasi, H., and Ainin, S. (2015). Investigating Knowledge Sharing Behavior in Academic Environment. Journal of Organizational Knowledge Management ،1-20.
- Maslow, A. (1943). Conflict, frustration, and the theory of threat. J. abnorm. (soc.) Psychol., 1943, 38, pp 81-86.
- Mathis, R. (2003). *Human Resources Management.* Ohio: Thomson Corporation.
- McShane, S., and Von Glinow, M. (2010). M: *Organizational Behavior* (5 Ed.). New York: McGraw-Hill Education.
- Mehta, R., Zhu, R., and Cheema, A. (2012). Is Noise Always Bad? Exploring the Effects of Ambient Noise on Creative Cognition. Journal of Consumer Research, 39(4), 784-799. doi:10.1086/665048.
- Ministry of Labor. (2000). Labor Law. No.7. Ramallah. MOL.
- Mishali, B. (2011). The role of occupational safety programs in improving the performance of workers in small and medium enterprises in Algeria: Master Thesis, Farahat, A. University, Algeria.
- Mostot, D. U. (1988). Understanding Organizational Behavior. New York: West Publishing Company.
- Muhrez, Z. (2018) the role of training in achieving job satisfaction in Algeria. Case study: National Institute specialized in the professional training of management and management techniques in M'Sila-Algeria

- Nawaf'ah, R. (2018). The Impact of Job Satisfaction of the Administrative Staff on Job Loyalty in Jordanian Private.
- New South Wales, industrial relations, 2013 “employment essentials”, Australia.
- Nimer, S. (1993). Job Satisfaction of the Saudi Employee in Public and Private Sector, Journal of King Saud University, Administrative Sciences, Master Thesis published.
- Obaidat, T., Adas, A., and Abdul Haq, K. (2001). "Scientific Research - Concept, Tools and Methods", Dar Al Fikr Publishing and Distribution, Amman, Jordan.
- Ozen, G., Yaman, M., and Acar, G. (2012). Determination of the employment status of graduates of recreation department. *The online journal of recreation and sport, 1*(2), 6-23.
- Palestinian Central Bureau of Statistics, 2018. Census of Population, Housing and Establishment Census, 1997, 2007, 2017. Ramallah - Palestine.
- Palestinian Basic Law, (2005), article No 25.
- Palestinian Labor Law No. 7, (2000), article 90.
- Palestinian Labor Law No. 7, (2000), article 91.
- Palestinian Labor Law No. 7, (2000), article 92.
- Rajhi, M. (2017) Job Satisfaction in Kuwait Press Corporation. Jordanian *journal for social science:* covers 10 issue 2.
- Rawia, H. (2004). Contemporary Organizational Behavior.” Alexandria: University House.p168
- Ria, Y., Anis, E. and Oci, S. (2012). The Influence of Occupational Safety and Health on Performance with Job Satisfaction as Intervening Variables. *American Journal of Economics*, Special Issue: 136-140.

- Robbins, S., Waters-Marsh, T and Millett, B. (2004). *Organizational behavior* (4th edition). Pearson Education, Frenchs Forest, N.S.W: P79
- Robbins, S. P., and Judge, T. A. (2013). Organizational Behavior. NJ: Pearson Education, Inc.
- Rožman, M., Treven, S. and Čančer, V. (2017). Motivation and Satisfaction of Employees in the Workplace. *Business Systems Research Journal*. 8. 10.1515/bsrj-2017-0013.
- Salamih, A. (1999). Organizational Commitment and Job Satisfaction of Faculty Members of the Faculty of Education, Ain Shams University, College of Education, Part 23 (111-143). Egypt
- Salamih, R. (2003). The administrative practices of the general secondary school principals in Jordan and their relation to the job satisfaction and the organizational loyalty of the teachers. Amman Arab University for Graduate Studies, Jordan.
- Salim, S. (2009): OHS Status in Industrial facilities in Palestine. *AL - Quds Open University Journal for Research and Studies* - Issue 16.
- Salim, F., Ramadan, Z., Dahan, O. and Makhamra, M. (1995). Modern Management Concepts. (I 5). The Jordanian Book Center.
- Salloum, S. (2002). Organizational Stress Factors and their Relationship to Job Satisfaction of Administrative Supervisors, Unpublished Master Thesis. Department of Educational Administration, College of Education, King Saud University, Riyadh.
- Sample Size Calculator: Understanding Sample Sizes. (n.d.). Retrieved October 9, 2019, https://www.surveymonkey.com/mp/sample-size-calculator/?ut_source=help_center.

- Segen's Medical Dictionary. (2011). Retrieved from https://medical-dictionary.thefreedictionary.com/occupational+health.
- Shawish, M. (2004). *Human Resources Management*, "Personnel Management", Dar Al Shorouk, Amman.
- Shrestha, M. (2019). Influence of Age group on Job Satisfaction in Academia. SEISENSE Journal of Management. 2. 30-41. 10.33215/sjom. v2i3.141.
- Sultan, K. (2015). Work policies and procedures affecting the balance between working and private life from the point of view of NGO staff in the Gaza Strip.
- Tappura, S. (2017). *The Management of OHS*: Managers' Perceptions of the Challenges, Necessary Support and Organizational Measures to support Managers. (Tampere University of Technology. Publication; Vol. 1518). Tampere University of Technology.
- Tomislav, B. (2013). *Relationship between Working Conditions and Job Satisfaction*: The Case of Croatian Shipbuilding Company *International Journal of Business and Social Science* Vol. 4 No. 2.
- Trivellas, P., and Dargenidou, D. (2009). *Organizational Culture, Job Satisfaction, and Higher Education Service Quality*. The Case of Technological Education Institute of Larissa. *The TQM Journal* , 382-399.
- Uhl-Bien, M., Schermerhorn, J. R., & Osborn, R. N. (2014). Organizational Behavior

  (13 ed.). United States of America: Wiley Global Education.
- Veltri, M.(2007). A Data-Based Evaluation of the Relationship between Occupational Safety and Operating Performance. Journal of SH&E Research , Vol. 4, Num.1.

- Victor, H.rymak , and Jose, D. (2007). The costs and effects of workplace accidents Twenty case studies from Ireland, School of Food Science and Environmental Health, Dublin Institute of Technology.
- Vredenburgh, A., (2002)Organizational safety: Which management practicesare most effective in reducing employee injury rates? Journal of SafetyResearch, USA.
- Welschen ،J. E. (2014). An investigation of the impact of extrinsic and intrinsic motivators on organisational knowledge sharing.
- Yaqubi, A. (2016). Effect of Work Characteristics on Motivation and Job Satisfaction for Self-Employed: A Case Study on IT E-Lancers in Gaza Strip
- Zidan, H. (1994). Occupational Safety and Health, Dar Al Fikr Publishing. Amman.
- Zuwilif, M. (2005). Management of individuals quantitative entry. Amman.
- www.bpc.ps. Retrieved October 9, 2019
- www.jepharm.ps. Retrieved October 9, 2019
- www.pharmacare-ltd.net. Retrieved October 9, 2019

Annexes

Annex 1: Safe Levels of Tempratures (C°) At Workplaces

Heavy Work	Medium Work	Soft Work	Work System and Break Every Hour
25	26.7	30	Continuous work
25.9	28	30.6	25% Work %25 - Break
27.9	29.4	31.4	50% Work %50 - Break
30	31.1	32.2	25% Work %75 - Break

Source: Instructions of the Labor Minister No. (6) for the year 2005

Annex 2: Safe Levels of Exposure to Low Temperatures

Maximum Exposure Period Allowed Per Day	Temperature C°	
No maximum period as long as the worker is healthy and wearing adequate and appropriate protective clothing.	- 18	- 1
Total time of exposure within the space does not exceed four hours alternating hours of work followed by a rest hour.	- 35	- 19
Total exposure periods per day not more than one hour for two periods, each 30 minutes with 4 hours interval, and can be divided into four periods each of 15 minutes with a two-hour interval between each exposure	- 57	- 36
Total exposure time in the day is estimated to be five minutes to provide the worker with a complete lid of the head with a padlock, with a tube attached to the body starting from the bottom of the leg to allow ample opportunity to warm the air of inspiration.	- 64	- 58

Source: Instructions of the Labor Minister No. (6) for the year 2005

Annex3: The Regulations for Temperature, Humidity and Ventilation

1. The temperature should be suitable so that it is not less than 15 ° C in winter and not more than 30 ° C in summer. If the nature of the work requires otherwise and the heat cannot be adapted within the limits mentioned, in this case, the worker shall be given rest periods.

2. The relative humidity should not exceed 80%.

3. In high temperature of the premises, take measures that will improve the rate of heat stress with the need to protect and raise awareness of the dangers of workers.

4. When working in places exposed to low temperatures (e.g., refrigerators or outdoors in cold areas), workers exposed should be kept under constant surveillance and be warned to the risk of low temperatures.

5. To avoid exposure to high or low temperatures, and to provide a safe working environment for workers exposed to them, the periods of exposure and rest should be regulated, and the duration of each period depends on the temperature at the workplace.

6. Ventilation in the workplace should be adequate to prevent stagnation or slow-down of the air while avoiding rotten air, air currents, high relative humidity or heat or sudden change.

7. Gases, dust, and fumes emitted during industrial processes shall be controlled from their source as much as possible.

8. The amount of clean air required for each person should not be less than 18 to 75 m3 / h, depending on the muscular effort.

9. The air speed within the workplace should not exceed 15 meters per minute in winter, and 50 meters per minute in summer.

Source: (Council of Ministers No. 49, 2004, Article -7)

Annex 4: Regulations to Prevent the Effect of Poor Lightening

1. The glass of the windows and the openings of the light shall be in a clean condition from inside and outside permanently and shall not be obstructed by any obstacle.

2. Natural or artificial sources of light should be distributed so that they provide homogeneous lighting free of direct glare, reflective light, shadows and the appropriate choice of light color to be white.

3. The large variation in lighting intensity should be avoided in the converged places, so that this inequality does not exceed (3: 1).

4. The appropriate colors should be used to paint the walls and ceilings in order to allow light reflection in suitable quantities.

5. Additional (supplementary) lighting required for accurate work, as well as emergency lighting, should be used when lighting the outlets and passages in case of main power failure.

6. Observe the requirement of medical fitness (visual acuity) for fine professions.

Source: Labor Minister No. 5, 2005 in the articles from (1-5)

Annex5: Safe Levels of Lighting Intensity in the Workplace

Activity	Lux
Corridors and roads	30
Stores of raw and finished materials	100
Low-precision works such as: A - assembly of large parts and construction work B - Regular inspection work - work in front of machines or tables C - ordinary office work ... etc.	300
Medium-precision works such as: A. Preliminary stages of polishing - Hard examination works B. Color quality test - Sorting and classification of products C. More difficult examination works - Accounting works ... etc.	700
High-precision works such as: A- High precision works in front of the machines b- Medium stages of polishing c. Computer, typewriters ... etc.	1000
Precision works such as: A - Welding of very fine parts B - Collection and testing of watches and jewelry C - Painting and fine work drawings D - Design and engineering drawings ... etc.	1500

Source: Instructions of the Labor Minister No. 5, 2005

Annex6: Safe Levels of Noise in the Workplace

Noise level dB (A)	85	90	95	100	105	110	115
Daily Exposure/Hour	8	4	2	1	½	¼	1/8

Source: Instructions of the Labor Minister No. 4, 2005

Annex 7: Regulations to Be Followed While Working With Vibrating Equipment

1. The intensity of the noise in the worker's working position and at the ear level should not exceed the safe levels by taking precautions and using appropriate technical methods.

2. Workers' exposure to noise and vibration should be reduced whenever possible.

Source: (Council Ministers No. (49), 2004, Article -9).

Annex 8: Preventive Measure to Minimize the Exposure to Radiations

1. Technical means shall be used to prevent or limit the access of harmful and ionizing radiation to workers.
2. The appropriate means of warning should be used to warn workers of the dangers of ionizing radiation and provide them with all the necessary information in this regard, as well as to train them before they join the work and during the period of their use on the precautions to be taken to preserve their health and safety from radiation.
3. A periodic inspection of the machines, tools and devices shall be carried out to ensure that they are functioning in a good manner to provide the required protection, and not to leak radiation.
4. Periodic measurement of doses of radiation to workers shall be done by providing each worker with a radiometer and the employer shall prepare a record by continuously recording all the doses absorbed by each worker throughout the period of use, provided that they do not exceed the safe levels permitted.

The maximum annual dose limit (mSv) allowed for pregnant women is (10 mSv) throughout the pregnancy at doses of 1 mSv per month. In anomalies and emergencies for individuals engaged in intervention and in circumstances requiring the rescue of others, the exposure (100 mSv) with a determination of (250 mSv) for life, limits were regulated in Annex 9.

Source: (Council Ministers No. (49), 2004, Article -10)

Annex9: The Maximum Annual Dose Limit

Application	The Maximum Annual Dose Limit (mSv)
Effective dose (whole-body dose)	100 (MSv) /5 years at a rate of 20 mSv / year provided that exposure does not exceed 50 mSv / year
The equivalent dose of the lens of the eyes	150
The equivalent dose of the genitals	200
The equivalent dose (breast, lungs, glands)	250
The equivalent dose (upper and lower limbs, skin, bones)	500

Source: Instructions of the Labor Minister No. 3, (2005)

Annex 10: Preventive Measures in Dealing with Electric Equipment

1. The electrical current must be switched off before maintenance, precautions must be taken to prevent the return of the current by mistake during maintenance, with warning signs such as (hazard / maintenance work not allowed to operate the key). Each circuit before maintenance should be switched off to ensure the separation of power, as well as the use of gloves and shoes insulating against electricity, and that all equipment and tools used in maintenance with isolated hands.

2. The design of the electrical grid must bear in mind the increase in future load if additional circuits are required.

3. High voltage equipment and hazardous areas shall be operated only by at least two workers who are familiar with occupational safety instructions.

4. Electrical wiring, switches, tools, electrical fixtures and other items shall be in conformity with the approved specifications.

Source: (Council Ministers No. (49), 2004, Article -11)

Annex11: Measure to Prevent the Effect of Chemicals

1. Chemical safety data sheets should be placed before using.

2. Measures shall be taken to prevent the exposure of workers to a mixture of two or more chemicals having serious and harmful effects.

3. Industrial processes in which gases and vapors are generated must be carried out in closed-loop chemical reactors. Gas and vapors must be withdrawn from the working environment in which they are continuously installed by installing localized devices for removal and disposal after treatment.

4. The vessels, devices, pipes and fittings shall be installed so that they are sealed, and shall be made of materials that are resistant to breakage, cracking, corrosion, pressure resistance, heat and materials that are not react able to the chemical used.

5. Protecting workers from hot liquids, inflammables or explosive substances.

6. Remnants of harmful chemicals, as well as empty containers, should be disposed off and not used as containers for drinking or eating, in appropriate ways, taking into account their treatment before disposal in appropriate ways.

7. First aid must be provided in addition to the usual means.

8. Precautions shall be taken to prevent, eliminate or limit the spread or reduction of the concentration of dangerous and harmful substances to health in the workplace and guided by engineering methods such as (replacement, insulation ... etc.).

9. The concentration of dirt on floors and walls shall not be allowed by means of humidification, suction or other engineering means to reduce the spread of harmful substances to the health.

10. Occupational Safety and Health precautions shall be taken in the transportation and handling of chemicals within the work environment, and safety data sheet should be correctly labeled with instructions about the chemical material and ways of first aid, storage handling...etc.

12. The driver of the chemical tanker shall be equipped with information on the transferred materials and shall be qualified and trained to act in case of emergency.

Source: (Council Ministers No. (49), 2004, Article -13).

Annex12: Precautions and Measures to Ensure the Prevention of Biological Hazards

1. Handling infected animals, their products and their waste.

2. Interfering with sick people and performing their services.

3. Infection with microbial agents.

Furthermore, articles 17 stated that: (Council Ministers No. (49), 2004, Article -17):

1. Workers must be vaccinated against infectious or communicable diseases or transmitted from animals and exposed to the worker by virtue of the nature of his work, periodically or after the discovery of one of the cases, according to the instructions of the competent authorities.

2. The appropriate technical means shall be used to prevent direct contact between workers and animals infected or likely to be infected or their products or their residues.

3. The animals must be examined, the infected must be isolated, treated or disposed, so that the infection does not pass on to the workers according to the instructions of the competent authorities.

On the other hand, article 18 stated that appropriate personal protective equipment (PPE) should be provided to prevent direct contact between workers and patients (in hospitals, laboratories, and treatment areas), and to clean or dispose of them in an appropriate manner. (Council Ministers No. (49), 2004, Article -18). Furthermore, article 19 stated that bathing and personal hygiene items such as soap, disinfectants and towels for workers exposed to bacteria, viruses, fungus and parasites should be provided after completion of work and before leaving the workplace to remove any substances, secretions or contaminants that may be infected with infectious diseases. (Council Ministers No. (49), 2004, Article -19). Finally, article 20 focused on (Council Ministers No. (49), 2004, Article -20):

1. The building of the establishment shall be designed so that rodents and reptiles are not allowed to enter or be procured, and disposed if any, in a manner that provides safety precautions.

2. All windows should be covered with sieves to prevent entry of insects and use appropriate pesticides if necessary.

Source: (Council Ministers No. (49), 2004, Article -16)

Annex13: Measures To Prevent the Effect of Mechanical Hazards

1. Machinery and mechanical equipment shall be operated by the specialists or under their direct supervision and in accordance with the safe operating rules. Any unsafe machine shall be stopped immediately until it is repaired and the reasons for its lack of safety are eliminated.

2. All machinery and equipment shall be equipped with self-protective means and shall be suitable for the type and nature of work.

3. The manufacturer's instructions on operating methods, warnings and periodic maintenance of machines must be complied with, and their results recorded in a special register for each machine, as well as recorded repairs and replacements.

4. Before using any machine or mechanical equipment at work, it must be inspected and tested by the specialists, and shall be in accordance with the approved specifications and standards.

5. Appropriate enough spaces should be left around the machinery and equipment to allow passage and unhindered work tools, or adjustments and repairs.

6. During maintenance or lubrication, the machine must be turned off.

7. Moving parts of generators, transmissions and hazardous parts of machinery, whether fixed or mobile, shall always be continuously surrounded by appropriate protective barriers unless they are designed to ensure the safety of workers, including the following:

- To work on the complete prevention of the danger that has been developed to avoid it.
- To prevent the worker or any member of the body from reaching the danger zone throughout the performance of the work.
- To be suitable for work and not to harass the worker or hinder him from work or failure Production.
- Do not impede the lubrication, adjustment, repair or detection of machines, and be fit for work with minimal maintenance.
- To resist what you are exposed to during work from the pressures and stresses and collisions and to resist fire and rust, and not to cause accidents (no pointed parts, sharp angles or rough edges, nor the source of any accidents).
- Be well installed. Do not remove or install safety measures or protective barriers. Cleaning, lubricating, or maintaining any machine is prohibited unless it is completely idle.
- The machine must be close to the device, such as cutting off the power supply for emergency use, if necessary, and workers should be adequately protected from the hazards of flying shrapnel or sharp objects in appropriate safety precautions.
- It is forbidden to wear loose clothing, as well as things that are hanging like necklaces, necktie and long hair while working in front of moving machines so as not to run over machines and endanger workers.

- In the event that physical barriers are not possible for practical reasons, such as in operating pistons and circuit breakers, light rays or any effective alternative shall be used to stop immediately the movement of the dangerous part of the machine.
- The signs should be hung next to the machines in the workplace to guide the workers to the correct working methods and precautions to be followed, and all manual tools, electrically operated or compressed air, the following shall be observed:

A: Be good quality and strong construction durable, and free from fractures, cracks etc.

B: Be equipped with appropriate protective barriers (if required).

C: If electrically operated, there should be ways to prevent electrical shocks.

D: Provide special places to save tools, and be organized and clean.

E: Should be used only in the processes and work assigned to them.

G: Workers should be directed, educated and trained in the proper ways to use, maintain tools so that they will always operate efficiently and safely.

- Steam heaters and steam conveyor parts shall be constructed of durable materials free of defects and shall be regularly maintained according to the instructions and shall be equipped with appropriate safety valves, either to control the pressure and remove the steam or stop the operation.
- The safety of pressure vessels, compressed and dissolved gas tanks, and the periodic inspection shall be maintained to ensure their safety and that the material is not leaked through the container.

Source: (Council Ministers No. (49), 2004, Article -4)

Annex14: List of the Arbitrators

No	Name	Specialization / Occupation	Place of work
1	Dr. Mohammad Abu Zaid	General Management Instructor	Birzeit University
2	Dr. Ashraf Almimi	Quality Management	Arab American University
3	Dr. Raed Badir	History Instructor	Birzeit University
4	Mohammad Zeid	English Language Instructor	Birzeit University
5	Dr. Badir Al'araj	Sociology Instructor	Birzeit University
6	Anwar Abu Qare'	English Language Instructor	Birzeit University
7	Marwan Barakat	Quality Department Manager	Palestinian Central Bureau of Statistics
8	Nayef Abed	Quality, And Sampling Department General	Palestinian Central Bureau of Statistics
9	Khalid Abu Khalid	Census Department General Manager	Palestinian Central Bureau of Statistics
10	Dr. Ayham Jaaron	Industrial Engineering	An-Najah National University

Annex 15: Final Questionnaire

استبانة حول أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله

بسم الله الرحمن الرحيم

السلام عليكم ورحمة الله وبركاته،

الاستبيان المرفق هو جزء من دراسة أجريها في الوقت الحالي لنيل درجة الماجيستير من الجامعة العربية الامريكية، بعنوان : **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** وسأكون شاكراً لكم إذا تكرمتم بالإجابة على الأسئلة المتضمنة في الاستبيان بكل جدية ومهنية.

مع العلم بانه سيتم التعامل مع الاجابات بسرية تامة, ولن تستخدم سوى لاغراض البحث العلمي, لذلك فان ذكر الاسم غير مطلوب مع ضرورة ارسال الاستمارة المعبئة من طرفكم في موعد اقصاه 3 ايام لدائرة الموارد البشرية في شركتكم.

مع خالص الامتنان وبالغ التقدير لتجاوبكم وإسهامكم في إنجاز هذا البحث العلمي.

الباحث

علاء عبد الهادي بيدس

هاتف: 0599944001 ايميل:alabeidas@gmail.com

اولا:المعلومات الديموغرافية

الجنس	◯ ذكر	◯ أنثى		
العمر	◯ أقل من29 سنة	◯ من 29 – اقل من 39 سنة		
	◯ من 39 – اقل من 49 سنة	◯ 49 سنة فأكثر		
المؤهل العلمي	◯ دكتوراه	◯ ماجستير	◯ دبلوم عالي	
	◯ بكالوريوس	◯ دبلوم متوسط	◯ توجيهي او اقل	
المسمى الوظيفي	◯ مدير عام	◯ مدير دائرة	◯ مدير قسم	◯ مساعد مدير ◯ مشرف
	◯ فني مختبر	◯ فني انتاج	◯ فني صيانة	◯ غير ذلك:(حدد).....
سنوات الخدمة في الشركة	◯ ا من سنة	◯ 1 - 5 سنو	◯ 6- 10 سنوات	
	◯ 11 - 15 سنة	◯ 16 سنة فأكثر		
مكان العمـــــل				
◯ شركة بير زيت	◯ شركة القدس	◯ شركة دار الشفاء		

Annex 15: Final Questionnaire

استبانة حول أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي
بين العاملين في قطاع الادوية في محافظة رام الله

ثانيا: (المتغير المستقل) انظمة السلامة والصحة المهنية:

الجزء 1: المخاطر في مكان العمل

نستطلع في هذا القسم عن أنواع المخاطر التي قد تتعرض لها في عملك. لكل عنصر أدناه ، يرجى وضع علامة X تحت العنوان الذي يصف أفضل خيار لمدى موافقتك أو عدم موافقتك عليه.

الرقم	في عملي	غير موافق بتاتا	غير موافق	لا استطيع التحديد	موافق	موافق تماما
1	ارفع اثقال اكبر من ٢٠ كجم على الأقل 10 مرات خلال اليوم.					
2	احمل اثقال اكبر من ٢٠ كجم على الأقل 10 مرات خلال اليوم.					
3	ادفع اثقال اكبر من ٢٠ كجم على الأقل 10 مرات خلال اليوم.					
4	اقوم بحركات متكررة بيدي مثل (التعبئة ، الفرز ، التجميع ، التنظيف ، السحب ، الدفع ، الكتابة) لمدة 3 ساعات على الأقل خلال اليوم.					
5	اقوم بأداء مهام عمل لست على دراية بها.					
6	اقوم باستخدام أساليب عمل لست على دراية بها.					
7	اتعامل مع المواد الخطرة مثل المواد الكيميائية اوالسوائل القابلة للاشتعال اوالغازات.					
8	اعمل في وضعية منحنية.					
9	اعمل في وضعية ملتوية.					
10	اعمل في وضعية صعبة.					
11	اعمل على ارتفاع 2 متر أو أكثر فوق مستوى الأرض .					
12	اعمل بمستويات ضوضاء عالية لدرجة أنني يجب أن ارفع صوتي عند التحدث إلى الناس على بعد أقل من متر واحد.					
13	اتعرض للمضايقات في العمل.					
14	اتعرض للتحرش في العمل.					
15	اظل واقفا لأكثر من 2 ساعة على التوالي.					

الجزء 2: سياسات وإجراءات مكان العمل

نستطلع في هذا القسم عن أنواع السياسات والنظم المعمول بها لجعل مكان العمل آمنًا. لكل عنصر أدناه ، يرجى وضع علامة X تحت العنوان الذي يصف أفضل خيار لمدى موافقتك أو عدم موافقتك عليه.

الرقم	في عملي	غير موافق بتاتا	غير موافق	لا استطيع التحديد	موافق	موافق تماما
1	يتلقى كل فرد التدريب اللازم على الصحة والسلامة المهنية في مكان العمل عند بدء العمل					
2	يتلقى كل فرد التدريب اللازم على الصحة والسلامة المهنية في مكان العمل عند تغيير الوظائف					
3	يتلقى كل فرد التدريب اللازم على الصحة والسلامة المهنية في مكان العمل عند استخدام أساليب جديدة					
4	هناك تواصل منتظم بين الموظفين والإدارة حول قضايا السلامة					
5	توجد أنظمة لتحديد الأخطار في العمل					
6	توجد أنظمة لمنع الأخطار في العمل					
7	توجد أنظمة لمعالجة الأخطار في العمل					
8	تعتبر الصحة والسلامة في مكان العمل بنفس أهمية الإنتاج					
9	تعتبر الصحة والسلامة في مكان العمل بنفس أهمية الجودة					
10	هناك لجنة نشطة وفعالة للصحة والسلامة و / أو ممثل للصحة والسلامة للعمال					
11	يتم التحقيق في الحوادث بسرعة من أجل تحسين الصحة والسلامة في مكان العمل					
12	يتم الاتصال والتواصل حول إجراءات الصحة والسلامة في مكان العمل بطريقة أتفهمها					

Annex 15: Final Questionnaire

استبانة حول أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله

الجزء 3: الوعي بالصحة والسلامة المهنية

نستطلع في هذا القسم وعيك بالصحة والسلامة المهنية (مثل المخاطر ، وحقوق ومسؤوليات كل من الموظفين وأصحاب العمل). لكل عنصر أدناه ، يرجى وضع علامة X تحت العنوان الذي يصف أفضل خيار لمدى موافقتك أو عدم موافقتك عليه.

الرقم	في عملي	غير موافق بتاتا	غير موافق	لا استطيع التحديد	موافق	موافق تماما
1	حقوقي فيما يتعلق بالصحة والسلامة في مكان العمل واضحة بالنسبة الي					
2	مسؤولياتي فيما يتعلق بالصحة والسلامة في مكان العمل واضحة بالنسبة الي					
3	حقوق أصحاب العمل فيما يتعلق بالصحة والسلامة في مكان العمل واضحة بالنسبة الي					
4	مسؤوليات أصحاب العمل فيما يتعلق بالصحة والسلامة في مكان العمل واضحة بالنسبة الي					
5	أنا أعرف كيف أقوم بعملي بطريقة آمنة					
6	إذا علمت بوجود خطر على الصحة أو السلامة في مكان عملي ، فأنا أعرف الموظف المختص الذي يجب ان ابلغه عن الخطر					
7	لدي المعرفة للمساعدة في الرد على أي امور تتعلق بالصحة والسلامة في مكان عملي					
8	أعرف ما هي الاحتياطات اللازمة التي ينبغي اتخاذها أثناء القيام بعملي					

الجزء 4: المشاركة في الصحة والسلامة المهنية

نستطلع في هذا القسم قدرتك على طرح أسئلة حول الصحة والسلامة في العمل والمشاركة فيها. تعتمد قدرتك على المشاركة في توفير مكان عمل أكثر أمانًا لنفسك على كل من إجراءاتك وقدراتك وأفعال وممارسات صاحب العمل.
لكل عنصر أدناه ، يرجى وضع علامة X تحت العنوان الذي يصف أفضل خيار لمدى موافقتك أو عدم موافقتك عليه

الرقم	في عملي	غير موافق بتاتا	غير موافق	لا استطيع التحديد	موافق	موافق تماما
1	أشعر بحرية التعبير عن المخاوف أو تقديم اقتراحات حول الصحة والسلامة في مكان العمل					
2	إذا لاحظت وجود خطر في مكان العمل ، اقوم بذكره إلى الإدارة					
3	أعلم أنه يمكنني التوقف عن العمل إذا اعتقدت أن هناك شيئًا غير آمن					
4	أعلم أن الإدارة لن تعطيني عملا شاقا					
5	إذا كانت بيئة العمل الخاصة بي غير آمنة ، فلن أقول أي شيء ، وآمل أن يتحسن الوضع في نهاية المطاف					
6	لدي وقت كافٍ لإكمال مهام عملي بأمان					

Annex 15: Final Questionnaire

استبانة حول أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي
بين العاملين في قطاع الادوية في محافظة رام الله

ثالثا: (المتغير التابع) الرضا الوظيفي

نستطلع في هذا القسم مدى رضاك لكل عنصر أدناه ، يرجى وضع علامة X تحت العنوان الذي يصف أفضل خيار لمدى رضاك أو عدم رضاك عنه.

الرقم	هذا ما اشعر به في وظيفتي الحالية تجاه:	غير راضٍ تماما	غير راضٍ	لا استطيع التحديد	راضٍ	راضٍ تماما
1	القدرة على الانشغال بالعمل طوال الوقت					
2	الفرصة في ان اعمل بمفردي اثناء فترات العمل					
3	الفرصة في ان اعمل اشياء مختلفة من حين لآخر					
4	الفرصة في ان اكون شخصاً له اعتباره في المجتمع					
5	الطريقة التي يتعامل فيها مديري مع موظفيه					
6	كفاءة رئيسي المباشر في اتخاذ القرارات					
7	القدرة على ان اعمل اشياء لا تتنافى مع ضميري					
8	الطريقة التي توفر بها وظيفتي العمل المستقر					
9	الفرصة في التعاون مع الاخرين					
10	الفرصة في اخبر الناس ماذا يفعلون					
11	الفرصة في ان استخدم قدراتي لعمل شئ مفيد					
12	الطريقة التي تطبق فيها الشركة سياسة العمل					
13	راتبي مقارنة مع ما اقوم به من عمل					
14	فرص الترقية في هذه الوظيفة					
15	الحرية في استخدام رأيي وخبرتي					
16	الفرصة في استخدام طرقي الخاصة لتأدية العمل					
17	بيئة العمل					
18	الطريقة التي يتعامل فيها زملائي مع بعضهم البعض في العمل					
19	الثناء الذي احصل عليه عند القيام بعمل جيد					
20	الشعور بالانجاز اثناء العمل					

ملاحظات تود مشاركتها:.....

.....

.....

نشكر لكم تعاونكم ومشاركتكم

Annex16: Questionnaire Arbitration Letter

مراسلة تحكيم الاستبانة

الجامعة العربية الامريكية–رام الله
عمادة الـدراســات الـعـلـيــا
قسم ماجستير ادارة الجودة

الموضوع/ تحكيم استبانة

حضرة السيد/ة: الدكتور/ة عبد الدعجة ..... المحترم/ة.

الدرجة العلمية: دكتوراه .....

التخصص: علم الاجتماع .....

مكان العمل: جامعة بيرزيت .....

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله.

ونظراً لخبرتكم الطويلة في مجال البحث العملي، والثقة العالية التي يوليها الباحث لكم، فإننا نأمل من حضرتكم التكرم بتحكيم استبانة الدراسة المرفقة وإثرائها من خلال توجيهاتكم وإرشاداتكم لما في ذلك فائدة للبحث العلمي، ولما يمثله رأي حضرتكم من أهمية بالغة في تعزيز وتحقيق أهداف هذا البحث.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث

علاء عبد الهادي بيدس

Annex16: Questionnaire Arbitration Letter

مراسلة تحكيم الاستبانة

جيدة جداً
مع الأخذ بعين الاعتبار
تعديلات الأمور الغامضة في
الاستبانة . والاهتمام بالتفاصيل الدقيقة

الجامعة العربية الامريكية–رام الله
عمادة الدراسات العليا
قسم ماجستير ادارة الجودة

الموضوع/ تحكيم استبانة

حضرة السيد/ة: رائد بدر ..... المحترم/ة.
الدرجة العلمية: دكتوراه .....
التخصص: تسويق .....
مكان العمل: جامعة بيرزيت .....

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله.

ونظراً لخبرتكم الطويلة في مجال البحث العملي، والثقة العالية التي يوليها الباحث لكم، فإننا نأمل من حضرتكم التكرم بتحكيم استبانة الدراسة المرفقة وإثرائها من خلال توجيهاتكم وإرشاداتكم لما في ذلك فائدة للبحث العلمي، ولما يمثله رأي حضرتكم من أهمية بالغة في تعزيز وتحقيق أهداف هذا البحث.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث

علاء عبد الهادي بيدس

Annex16: Questionnaire Arbitration Letter

مراسلة تحكيم الاستبانة

الجامعة العربية الامريكية–رام الله
عمادة الـدراســات الـعـليــا
قسم ماجستير ادارة الجودة

الموضوع/ تحكيم استبانة

حضرة السيد/ة: د. محمد ابو زنيد ..... المحترم/ة.

الدرجة العلمية: استاذ مساعد .....

التخصص: ادارة اعمال .....

مكان العمل: جامعة بيرزيت .....

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله.

ونظراً لخبرتكم الطويلة في مجال البحث العملي، والثقة العالية التي يوليها الباحث لكم، فإننا نأمل من حضرتكم التكرم بتحكيم استبانة الدراسة المرفقة وإثرائها من خلال توجيهاتكم وإرشاداتكم لما في ذلك فائدة للبحث العلمي، ولما يمثله رأي حضرتكم من أهمية بالغة في تعزيز وتحقيق أهداف هذا البحث.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث

علاء عبد الهادي بيدس

Annex16: Questionnaire Arbitration Letter

مراسلة تحكيم الاستبانة

الجامعة العربية الامريكية–رام الله
عمادة الـدراسـات الـعـليـا
قسم ماجستير ادارة الجودة

الموضوع/ تحكيم استبانة

حضرة السيد/ة: .....المحترم/ة.

الدرجة العلمية: .....

التخصص: .....

مكان العمل: .....

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله.

ونظراً لخبرتكم الطويلة في مجال البحث العملي، والثقة العالية التي يوليها الباحث لكم، فإننا نأمل من حضرتكم التكرم بتحكيم استبانة الدراسة المرفقة وإثرائها من خلال توجيهاتكم وإرشاداتكم لما في ذلك فائدة للبحث العلمي، ولما يمثله رأي حضرتكم من أهمية بالغة في تعزيز وتحقيق أهداف هذا البحث.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث

علاء عبد الهادي بيدس

Annex 17: Questionnaire Filling Letter

تعبئة استبانة لدراسة ماجيستير

الجامعة العربية الامريكية–رام الله
عمادة الـدراســـات الـعـلـيـــا
قسم ماجستير ادارة الجودة

الموضوع: تعبئة استبانة لدراسة ماجيستير

السيد الدكتور: طلال ناصر الدين/ مدير عام شركة بير زيت لصناعة الادوية

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله. ويتطلب البحث استقصاء آراء العاملين في شركات الادوية في محافظة رام الله والبيرة لبيان أثر تطبيق تشريعات السلامة والصحة المهنية على الرضا الوظيفي.

وايمانا من الباحث بأهمية موضوع الدراسة, وثقته العالية بكم,فاننا نأمل من حضرتكم التفضل بمنحي جزءا من وقتكم والتكرم بتعبئة الاستبانة المرفقة, كما نرجو منكم توخي الدقة والموضوعية في اختيار الدرجة المناسبة والتي تتوافق مع رأيكم لما له أثر كبير في الحصول على نتائج دقيقة تعزز من تحقيق اهداف الدراسة.

ونحيطكم علما بأن كل ما تدلونه من آراء او بيانات سوف يتم التعامل معها بسرية تامة, ولن تستخدم الا لأغراض البحث العلمي لذلك فان ذكر الاسم غير مطلوب.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث
علاء عبد الهادي بيدس

Annex 17: Questionnaire Filling Letter

تعبئة استبانة لدراسة ماجيستير

الجامعة العربية الامريكية–رام الله
عمادة الـدراســـات الـعـلـيـــا
قسم ماجستير ادارة الجودة

الموضوع: تعبئة استبانة لدراسة ماجيستير

السيد : رامي قطب / مدير عام شركة القدس للمستحضرات الطبية

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله. ويتطلب البحث استقصاء آراء العاملين في شركات الادوية في محافظة رام الله والبيرة لبيان أثر تطبيق تشريعات السلامة والصحة المهنية على الرضا الوظيفي.

وايمانا من الباحث بأهمية موضوع الدراسة, وثقته العالية بكم,فاننا نأمل من حضرتكم التفضل بمنحي جزءا من وقتكم والتكرم بتعبئة الاستبانة المرفقة, كما نرجو منكم توخي الدقة والموضوعية في اختيار الدرجة المناسبة والتي تتوافق مع رأيكم لما له أثر كبير في الحصول على نتائج دقيقة تعزز من تحقيق اهداف الدراسة.

ونحيطكم علما بأن كل ما تدلونه من آراء او بيانات سوف يتم التعامل معها بسرية تامة, ولن تستخدم الا لأغراض البحث العلمي لذلك فان ذكر الاسم غير مطلوب.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث
علاء عبد الهادي بيدس

Annex 17: Questionnaire Filling Letter

تعبئة استبانة لدراسة ماجيستير

الجامعة العربية الامريكية–رام الله
عمادة الـدراســـات الـعـلـيـــا
قسم ماجستير ادارة الجودة

الموضوع: تعبئة استبانة لدراسة ماجيستير

السيد الدكتور: باسم خوري/ مدير عام شركة دار الشفاء لصناعة الادوية

تحية طيبة وبعد،،،

يقوم الباحث بإعداد دراسة بعنوان " **أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله** "، وذلك استكمالاً لمتطلبات الحصول على درجة الماجستير في ادارة الجودة من الجامعة العربية الامريكية – رام الله. ويتطلب البحث استقصاء آراء العاملين في شركات الادوية في محافظة رام الله والبيرة لبيان أثر تطبيق تشريعات السلامة والصحة المهنية على الرضا الوظيفي.

وايمانا من الباحث بأهمية موضوع الدراسة, وثقته العالية بكم,فاننا نأمل من حضرتكم التفضل بمنحي جزءا من وقتكم والتكرم بتعبئة الاستبانة المرفقة, كما نرجو منكم توخي الدقة والموضوعية في اختيار الدرجة المناسبة والتي تتوافق مع رأيكم لما له أثر كبير في الحصول على نتائج دقيقة تعزز من تحقيق اهداف الدراسة.

ونحيطكم علما بأن كل ما تدلونه من آراء او بيانات سوف يتم التعامل معها بسرية تامة, ولن تستخدم الا لأغراض البحث العلمي لذلك فان ذكر الاسم غير مطلوب.

نشكر لكم مقدماً حسن تعاونكم واهتمامكم

الباحث
علاء عبد الهادي بيدس

Annex 18: Research Letter

Arab American University
Faculty of Graduate Studies

الجامعة العربية الأمريكية
كلية الدراسات العليا

2018/3/5

حضرة السيد الدكتور باسم خوري المحترم

مدير عام شركة دار الشفاء لصناعة الادوية

تسهيل مهمة بحثية

تحية طيبة وبعد،

تهديكم الجامعة العربية الامريكية اطيب التحيات، وبالإشارة الى الموضوع أعلاه، تشهد كلية الدراسات العليا في الجامعة أن الطالب علاء عبد الهادي بيدس والذي يحمل الرقم الجامعي 201712489 هو طالب ماجستير في الجامعة العربية الامريكية تخصص إدارة جودة، ويعمل على بحث بعنوان "أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله" ، نأمل من حضرتكم الايعاز لمن يلزم لمساعدته للحصول على المعلومات اللازمة للبحث، علما" ان المعلومات ستستخدم لغاية البحث فقط وسيتم التعامل معها بغاية السرية.

وتفضلوا بقبول فائق الاحترام

عميد كلية الراسات العليا

د. عبد الرحمن أبو لبدة

كلية الدراسات العليا
FACULTY OF GRADUATE STUDIES

Jenin Tel: +970-4-2418888 Ext.:1471,1472 Fax: +970-4-2510810 P.O. Box:240
Ramallah Tel: +970-2-2941999 Fax: +970-2-2941979 Abu Qash - Near Alrehan
E-mail: FGS@aaup.edu ; PGS@aaup.edu Website: www.aaup.edu

Arab American University
Faculty of Graduate Studies

الجامعة العربية الأمريكية
كلية الدراسات العليا

2018/3/5

حضرة السيد الدكتور طلال ناصر الدين المحترم

مدير عام شركة بير زيت لصناعة الادوية

تسهيل مهمة بحثية

تحية طيبة وبعد،

تهديكم الجامعة العربية الامريكية اطيب التحيات، وبالإشارة الى الموضوع أعلاه، تشهد كلية الدراسات العليا في الجامعة أن الطالب علاء عبد الهادي بيدس والذي يحمل الرقم الجامعي 201712489 هو طالب ماجستير في الجامعة العربية الامريكية تخصص إدارة جودة، ويعمل على بحث بعنوان "أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله" ، نأمل من حضرتكم الايعاز لمن يلزم لمساعدته للحصول على المعلومات اللازمة للبحث، علما" ان المعلومات ستستخدم لغاية البحث فقط وسيتم التعامل معها بغاية السرية.

وتفضلوا بقبول فائق الاحترام

عميد كلية الراسات العليا

د. عبد الرحمن أبو لبدة

كلية الدراسات العليا
FACULTY OF GRADUATE STUDIES

Jenin Tel: +970-4-2418888 Ext.:1471,1472 Fax: +970-4-2510810 P.O. Box:240
Ramallah Tel: +970-2-2941999 Fax: +970-2-2941979 Abu Qash - Near Alrehan
E-mail: FGS@aaup.edu ; PGS@aaup.edu Website: www.aaup.edu

Arab American University
Faculty of Graduate Studies

الجامعة العربية الأمريكية
كلية الدراسات العليا

2018/3/5

حضرة السيد الدكتور رامي قطب المحترم

مدير عام شركة القدس للمستحضرات الطبية

تسهيل مهمة بحثية

تحية طيبة وبعد،

تهديكم الجامعة العربية الامريكية اطيب التحيات، وبالإشارة الى الموضوع أعلاه، تشهد كلية الدراسات العليا في الجامعة أن الطالب علاء عبد الهادي بيدس والذي يحمل الرقم الجامعي 201712489 هو طالب ماجستير في الجامعة العربية الامريكية تخصص إدارة جودة، ويعمل على بحث بعنوان "أثر تشريعات السلامة والصحة المهنية على الرضاء الوظيفي بين العاملين في قطاع الادوية في محافظة رام الله" ، نأمل من حضرتكم الايعاز لمن يلزم لمساعدته للحصول على المعلومات اللازمة للبحث، علما" ان المعلومات ستستخدم لغاية البحث فقط وسيتم التعامل معها بغاية السرية.

وتفضلوا بقبول فائق الاحترام

عميد كلية الراسات العليا

د. عبد الرحمن أبو لبدة

كلية الدراسات العليا
FACULTY OF GRADUATE STUDIES

Jenin Tel: +970-4-2418888 Ext.:1471,1472 Fax: +970-4-2510810 P.O. Box:240
Ramallah Tel: +970-2-2941999 Fax: +970-2-2941979 Abu Qash - Near Alrehan
E-mail: FGS@aaup.edu ; PGS@aaup.edu Website: www.aaup.edu

الملخص

هدفت الدراسة إلى بيان أثر تشريعات السلامة والصحة المهنية على الرضا الوظيفي بين العاملين في قطاع الأدوية في محافظة رام الله والبيرة ، وقد اعتمد الباحث لإجراء الدراسة المنهج الوصفي التحليلي، واستخدم أسلوب العينة الطبقية العشوائية لجمع البيانات من العاملين في قطاع الأدوية في محافظة رام الله والبيرة والبالغ عددهم (932) موظف، وبلغت عينة الدراسة (129) موظف، ولتحقيق أهداف الدراسة تم تصميم استبانة كاداة لجمع البيانات، وقد تم استرجاع (122) استبانة، أي أن نسبة الاستجابة بلغت (94.5%)، وقد تم استخدام برنامج (SPSS) لتحليل البيانات واختبار الفرضيات.

بينت هذه الدراسة وجود موافقة بدرجة كبيرة على أبعاد السلامة والصحة المهنية لدى العاملين في قطاع الأدوية في محافظة رام الله والبيرة, بالاضافة الى وجود رضا وظيفي بدرجة كبيرة لدى العاملين . ايضا تبين وجود علاقة ذات دلالة إحصائية بين أبعاد السلامة والصحة المهنية والرضا الوظيفي في قطاع الأدوية في محافظة رام الله والبيرة, ووجود أثر ذو دلالة إحصائية لأبعاد السلامة والصحة المهنية على الرضا الوظيفي في قطاع الأدوية في محافظة رام الله والبيرة.

توصلت الدراسة الى ان زيادة كل من مشاركة الموظفين في السلامة والصحة المهنية , وزيادة الوعي عند الموظفين في اشتراطات السلامة والصحة والمهنية, يزيد من نسبة الرضا الوظيفي بين العاملين في قطاع الأدوية في محافظة رام الله والبيرة.