**Deanship of Graduate Studies**

**Al-Quds University**

# Evaluation of Medical Internship Program at the Ministry of Health in Gaza

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# Evaluation of Medical Internship Program at the Ministry of Health in Gaza

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# Dedication

*I dedicate this work to the sake of Allah my Creator and my master.*

*To my parents whose affection, love, encouragement and prays day and night make me able to get such success and honor.*

*To my dear wife, for her understanding and support.*

*To my children, Mohammed, Sarah, Zeina, and Yousef.*

*To my brothers, sisters and my friends.*

*To everyone who contributed to getting this study a reality, thank you.*

*Ahmed Salah Al Shorafa*

## Declaration

I certify that this thesis submitted for the master's degree is the result of my own research, except where otherwise acknowledged, and that this thesis or any of its parts has not been submitted for a higher degree to any other university or institution.

## Signed:

**Ahmed Al Shorafa**

**Date: / /**

## Acknowledgment

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## Abstract

***Background:*** *Medical knowledge and methods of treating disease are expanding rapidly. High-quality education and training of healthcare providers are essential contributors to keep up with such development. Medical Internship refers to the supervised training program that lasts for twelve months in an accredited facility, where newly qualified doctors rotate in different medical domains before they're allowed to provide clinical service to patients as medical practitioners.*

***Aim:*** *To evaluate the Medical Internship program on Gaza to provide recommendations that contribute to improve the Medical Internship program which could be reflected on the health care system and medical practice.*

***Methods:*** *descriptive-analytical, cross-sectional design were used. The study population included all intern doctors who finished medical internship program in the period between 2017-2018. We utilized a triangulated approach employing both quantitative and qualitative tools.*

*Quantitative data was collected through an online self-administered questionnaire. qualitative data were conducted within six focus group discussions with 50 participants from different training centers using a semi-structured interview questionnaire and five Key informant interviews. The response rate was 88.7% (285/353). The overall reliability was high (Chronbach's alpha=0.961). Data was entered and analyzed using the SPSS program version 23 for the quantitative data. open thematic techniques were used to analyze the qualitative data.*

***Result:*** *The overall weighted mean for the study dimensions was (66.44%). The effects of training program domain (78.52%), the design (66.48%), the environment (66.17%), and the content of training domain (62.46%). while the lowest weighted mean was the role of the general directorate of human resource development (58.77%).*

*males represent 53.3% of study participants, (25.7±1.9). The majority of the participants were graduates from local universities (66.3%), (29.1%) from Arab countries and (4.6%) from other countries.*

*There are statistically significant differences between the domain of the content of the environment, the effect of the training program, and the governorate, Rafah score the highest mean. There was no statistically significant difference between the other domains. There are statistically significant differences between all domains except the effect of the training program domain, and the place of graduation, ($P<0.05$). However, no statistically significant differences were observed between the rest of the socio-demographic variables and training program in all domains. Most of participants who received part of the internship period outside Gaza evaluated the training program as an average 43.4%. 33.3% and 23.3% as strong and weak respectively.*

*Gaps are facing the medical internship program in Gaza, such as guide booklet, orientation programs, field supervision in the training centers, and evaluation tools. Also, there is a need for more focus on clinical skills rather than theoretical skills. An important topic such as the medicolegal aspects, documentation, patient safety and infection control need to be included in the content of the program. There is no suitable place for trainees in the training centers that negatively affect the training environment. Additional challenges facing the intern's doctors is the lack of cooperation between medical staff, overcrowded trainees in some of the training centers, lack of supervision, workload, and absence of clear job description.*

***Conclusion:*** *The medical internship program shown to be deficient with gaps in many aspects such as orientation, guide booklet, evaluation tools, practical courses and supervision which need improvement to be optimal. The policymakers should pay more attention and efforts in the development and monitoring of the internship program.*

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## List of Abbreviations

| | |
|---|---|
| **ACFJD** | The Australian curriculum framework for junior doctors |
| **ANOVA** | One-way Analysis of Variance |
| **BSc** | Bachelor of Science |
| **FGD** | Focus Group Discussion |
| **GDHRD** | General directorate of human resource development |
| **GDP** | Gross Domestic Product |
| **GS** | Gaza Strip |
| **HMC** | Hamad Medical Corporation |
| **KII** | Key Informant Interviews |
| **Km** | Kilometer |
| **MBA** | Medical Board of Australia |
| **MCNZ** | Medical Council of New Zealand |
| **MD** | Median |
| **MI** | Medical Internship |
| **MOH** | Ministry of Health |
| **N** | Number |
| **NBME** | National board of medical exam |
| **NGOs** | Non-governmental Organizations |
| **NIS** | New Israeli Shekel |
| **OECD** | Organization for Economic Co-operation and Development |
| **OSCE** | Objective structured clinical exam |
| **PA** | Palestinian Authority |
| **PCBS** | Palestinian Central Bureau of Statistics |
| **PGY 1** | first postgraduate year |
| **PGY 2** | Second postgraduate year |
| **PHC** | Primary Health Care |
| **PMC** | Palestine Medical Council |
| **PRHO** | Pre-registration house office |
| **PRINT** | Preparation for Internship |
| **Sd** | Standard Deviation |
| **SPSS** | Statistical Package for Social Sciences |
| **Sq.** | Square |

| | |
|---|---|
| **UK** | United Kingdom |
| **UN** | United Nations |
| **UNDP** | United Nations Development Program |
| **UNFPA** | United Nations Population Fund |
| **UNRWA** | United Nations Relief and Works Agency for Palestine Refugees in the Near East |
| **USA** | United States of America |
| **USD** | United State Dollars |
| **WB** | West Bank |
| **WHO** | World Health Organization |
| **WM** | Weighted mean |

# Chapter One

## Introduction

### 1.1 Background

The medical internship (MI) is defined as a supervised training period for newly graduated doctors at an accredited facility such as a hospital, clinic or a health center. This is a transitional period from being a student to become a professional. The MI should provide opportunities to further develop interns' knowledge, skills, appropriate behavior patterns, and professional thinking. During this time, the interns should gain understanding, insight, and experience in patient care to function as competent and safe medical practitioners (Mofolo & Botes, 2016).

The internship year provides new medical graduates with the opportunity of gaining experience in a set of cores of clinical skills under supervision. Furthermore, the internship rotations allow the intern doctors to perform in their professional role as a physician and acquire necessary attitudes and values. In addition to obtaining a degree of competency in basic skills, the intern doctors need to improve adequate confidence to carry out the necessary procedures. This clinical involvement would help in laying the foundation to engage in independent practice later on (Premadasa, Shehab, Al-Jarallah, & Thalib, 2008).

On the other hand, international research proves that this transition is frequently experienced as very stressful, insufficient preparation in medical school, and inadequate support and learning for newly practiced doctors as they first join to the clinical practice, have been recognized as factors influencing to this stressful experience of transition (Brennan et al., 2010). Also, most of the interns informed a feeling of unpreparedness to the demands of this year and more importantly how they can deal with challenges such as patient safety and quality care aspects (Minha, Shefet, Sagi, Berkenstadt, & Ziv, 2016). Therefore, the intern doctors should be an active learner, to overcome this difficult transition during the MI period, achieving learning outcomes independently by showing a variety of learning approaches. The learner should also meet the essential educational components of practical experience, feedback and practical reflection (Aretz, 2003). As a future competent physician working in a complex health care system, the intern doctors need to be exposed to a wide range of medical career options and develop a variety of professional skills that were deemed essential to the health care system (Grant, 2007).

Previous studies suggested that during internship preparation, acquiring practical skills receives inadequate care. Less than 15% of respondents had performed five or more specific practical procedures after their first rotation (Clayton, Henderson, McCracken, Wigmore, & Brown, 2005). And the new doctors did not consider their practical skills development to be high (Hesketh, Allan, Harden, & Macpherson, 2003). Other reports suggested that newly qualified physicians were not properly equipped for internship duties (Evans, Wood, & Roberts, 2004). In addition, it is observed that the self-reported confidence of interns varied widely from the evaluations of the competence of the supervisors (Barnsley et al., 2004). Furthermore, one thing that should be noted by internship trainers is that many trainees indicated that they were confident that they would initiate management of conditions under which they had minor or no experience (Clayton et al., 2005). Moreover, the internship year has been labeled as a lost opportunity for medical education (Lake & Landau, 2007).

This study evaluated the MI program in Gaza, in order to help policymakers to formulate strategies for an effective outcome for the MI program.

## 1.2 Problem Statement

In the last three decades, several countries had reformed their MI program due to the important advances in clinical diagnosis, therapy & medical education. This has led to a fact that many of these training programs had become an old-fashion, some of these programs became obsolete and unable to satisfy the present training requirements in the era of globalization and the digital age. Since then, there have been many changes in medical education, medical workforce and health services organizations. Additionally, the combined effect of incremental changes in the hospital environment, such as new models of care, short lengths of stay, improved governance of patient safety and short working hours, had unintentionally diluted the learning experience in many settings (Wilson & Feyer, 2015).

Moreover, a previous study stated that almost half of interns spent more than half of their internship preparing for postgraduate studies and job searches (Xia et al., 2019).

Additionally, In many countries, the number of medical graduates has enlarged significantly over the last decade (Flanagan, 2013). Such increases have led to questions about the capacity of these health systems to provide adequate medical placements for the increased internal cohort (Crotty, 2007). This situation is similar to the Gaza Strip (GS) condition in terms of the considerable increase in the number of medical interns as shown in (annex 3).

On the other hand, the local MI program had some changes in 2013 by adding Psychiatry, Anesthesia, and intensive care rotations, in addition, to computerize the registration system, since establishment the local MI has not been subjected to any evaluation or critical analysis. Moreover, according to the researcher's knowledge, there is no previous study that evaluated the internship program in the GS.

This study aimed to evaluate the MI program in Gaza in order to provide recommendations that could contribute to improving the MI program, which might have an impact on the health care system and medical practice.

### 1.3 Justification

The internship year is the chance for the intern doctors to apply, strengthen and expand their clinical skills. Additionally, they can also gradually be obliged to provide safe and high-quality patient care. A balance between learning, training and clinical obligations should be included in the internship period. Throughout the internship, interns start a lifelong learning journey in a controlled setting where interns work to improve their clinical judgment. Thus, this period is a very important and vital stage in the life of intern doctors, which could help them to discover the field of interest for future practice (Dangol, 2008); (Giri & Parhar, 2012).

Throughout the researcher experience, while working at the internship department at the general directorate of human resource development (GDHRD), the researcher has benefited from many comments and observations by the trainees and their supervisors, some trainees prefer some rotations and specific training centers than others. However, there is generally no agreement about the advantages and disadvantages of the training program. On the other hand, the failure to convert theoretical knowledge into a practical reality leaves newly trained doctors with insufficient clinical skills and a shortage of knowledge that adversely affects their professional acquired skills (Sein & Tumbo, 2012).

Therefore, the main obstacles that could face interns can be summarized as; difficult to make a proper diagnosis for diseases or conditions, fail to perform clinical examinations competently, inability to prescribe the right drug, make clinical mistakes during operations or experience medical emergency. It might result in physical or psychological injury, damage, disability or impairment, and even death. These, in turn, may significantly impact the overall healthcare system (Noman, Asaduzzaman, Talukder, Arefin, & Rahman, 2017).

The researcher argued that the MI program needs reassessment to find out recommendations that could improve the training program and reflect positively on the health care system.

## 1.4 Aim

This study aimed to evaluate the MI program in Gaza governorates in order to provide recommendations that could contribute to improving the MI program, which might have an impact on the health care system and medical practice.

## 1.5 Objectives

1. To assess different components in the MI program provided to medical graduates in the GS such as input, process, and output.
2. To explore the variations in outcomes and perceptions about the program.
3. To assess the stakeholder perception regarding the training program.
4. To explore the strengths and weaknesses of the internship program.

## 1.6 Questions

1. How appropriate are the MI program as perceived by intern doctors?
2. What are the main problems facing the MI program?
3. What are the main strength and weaknesses of the MI program?
4. Are the input factors appropriate to respond to the intern expectations and needs?
5. Are the process factors appropriate to respond to the intern expectations and needs?
6. Are the output factors appropriate to respond to the intern expectations and needs?

7. How much the enrolled in the internship program contribute to improving skills?
8. Are there differences in perceptions about the MI program in relation to intern's characteristics related variables such as demographic variables?
9. Which suggestions could be recommended in order to improve the MI program?

## 1.7 Context

### 1.7.1 Demographic context

Palestine is a small country with a large population living in a small area. The GS is a narrow belt of land located in southern Palestine, forming the coastal area of the Palestinian territory along the Mediterranean Sea between Egypt and Israel. It has an area of 365 sq. km2, a width of 6-12 kilometers, a length of 45 kilometers and a high population density of 5,203 individuals per km2 (PCBS, 2018b), (annex 1).

Five governorates form the GS which are North Gaza, Gaza City, Central Region, Khan Younis and Rafah from north to south (annex 2).

The GS is a very crowded area, with a high population density of 5,203 individuals per km2 (PCBS, 2018b). About 4,705,601 is the total population of the Palestinians in both the West Bank (WB) and the GS in 2018, with (1,875,317 in the GS). The average household family size is 5.6, A large proportion of the population ranged from 0-17 years of age, which presents almost 48.0% according to the (PCBS, 2018b). Life expectancy is 72 years for males, and 75 years for females among Palestinians, and the percentage of populations aged 60 years and above in the Gaza Strip is 4.3% of the total population (PCBS, 2018b). According to PCBS, the refugees constitute the majority of the population of the GS (67%) (PCBS, 2018b).

### 1.7.2 Socioeconomic characteristic

The economic status in the GS is very difficult where poverty affecting 53% of the total population of Gaza (Courbage, Hamad, & Zagha, 2016). And 48.2%, of youth, are unemployed for years (PCBS, 2018b), there are many restrictions to get in and outside the GS which is controlled by Israelis. The main sources of income in the GS depend on the salaries received from governmental employment which acts almost 70% of the total income. Nowadays, cutting off the salaries totally or partially affected the general economic status of the GS. Almost 76.1% of the national population in the GS lies under the poverty line (Courbage et al., 2016).

In the last decade, many wars and military actions occurred in the GS mainly during (2008, 2012, and 2014) and nowadays it is facing very difficult living situations starting from blockade to internal division. The GS total gross domestic product (GDP) is US$ 2.970.5 million (PCBS, 2018a). And 80% of the population relies on international humanitarian assistance (UNRWA, 2018).

Despite the difficulties and economic problems facing the GS, Palestinian families are keen to educate their siblings and face challenges, especially the high school student who tend to study medicine, regardless of the high study costs. Medical schools charge high tuition fees. which is largely funded through family contributions. There are some scholarships and loans available from local and international nongovernmental organizations (NGOs), in addition to the universities. Fees are in around $8000 US Dollars per year for Palestinian students, a significant cost given that the average annual household expenditure in Palestine is about $12,000 (Kerr Winter, Salamma, & Qabaja, 2014) ; (PCBS, 2018a).

### 1.7.3 Health care system

The current Palestinian health system is built on fragmented services that grew and developed over generations and different regimes. Health services are delivered by the Ministry of Health (MOH), United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), (NGOs), and the private sector, which are the main health care providers in the GS (UNDP, 2014). MOH is considered the major provider of healthcare services in the GS and provides primary, secondary and tertiary health services. For health services that are not available in MOH hospitals, they purchase it from local and external health care providers. MOH provides health care services to Palestinian populations who have health insurance. There are 32 hospitals, 158 primary care centers in Palestine. In Gaza, there are 22 primary care centers belonging to UNRWA, and 51 belonging to MOH (MOH, 2018).

In regarding to the UNRWA services, which provides primary health care services for refugees in the GS, and limited secondary and tertiary health services by purchasing it from other healthcare organizations like NGOs, which is provided free for all refugees.

Additionally, NGOs are playing essential roles in delivering primary, secondary and tertiary health care services, which are funded by donors that provide healthcare services with reasonable fees to maintain sustainability. On the other hand, the private healthcare sectors provide health service for-profit purpose, it provides primary, secondary and tertiary health care services and has an effective role in improving health status to whom can pay the financial burden.

### 1.7.4 Palestinian Medical Schools

Medical colleges in Palestine are four, two in the GS and two in the West Bank. Each year, about 150 -200 medical students graduate from medical schools in Palestine, according to the Foundation for the Advancement of International Medical Education and Research (FAIMER, 2019). Al-Azhar University in Gaza registered its first medical students in 1999, following the Al Quds curriculum. In 2006, a second medical school opened in Gaza at the Islamic University. Nowadays, it is still usual for students to join medical schools abroad, particularly in Egypt, Jordan, and Russia (Kerr Winter et al., 2014).

### 1.7.5 Undergraduate medical programs

Undergraduate medical programs last six years in Palestine. The initial three years are a mixture of basic science and pre-clinical medicine; clinical years are four to six. Nevertheless, English is the official language of all classes, a combination of Arabic and English is often used as a general rule. Preclinical courses are traditional and lecture-based, are organized around subjects rather than clear systems. The range of healthcare facilities and types of facilities seen by clinical students gives them incredible exposure to different medical staff and practice styles (Kerr Winter et al., 2014).

### 1.7.6 Postgraduate education

After completing the undergraduate medical program, doctors unusually finished a one-year internship, where they shift to various specialties and various services nearly every two months. All internships include medicine, surgery, pediatrics, obstetrics and gynecology, public health and psychiatry. An internship is expected of all graduates from abroad. Interns have limited patient care obligations and are not expected to make many decisions freely. After the internship, doctors apply for a residency program.

Residents trained in a particular specialty and are responsible for the provision of service. Residency programs last 4 to 5 years. (Kerr Winter et al., 2014); (PMC, 2019).

## 1.8 Licensing procedures and continuing medical education

All doctors who graduated from abroad must undertake a national examination to obtain their license to practice autonomously, while doctors who are graduated from a local university are exempted from that exam. This consists of multiple-choice questions that cover all specialties. The exam must be passed before taking up a residency program and is typically performed at the end of the internship year.

The medical license is valid for life, with no obligation to renew to develop skills or to keep competence. There is no formal system of continuing medical education in Palestine. Conferences and courses are held infrequently on an ad hoc basis, often with financial support from pharmaceutical companies.

The license exam is one of the GDHRD main roles (Kerr Winter et al., 2014).

## 1.9 The Directorate General of human resources development

The GDHRD is the main gateway for all training programs of the Ministry of Health. it works to achieve the strategic objectives of the Ministry of Health in order to provide quality health services through the development of health, technical and administrative staff and equip them with scientific and practical experiences that contribute to alleviating the suffering of the Palestinian people.

In addition, GDHRD plans for future needs of human resources at the Ministry of Health in quantity and quality. Not only, it contributes to guiding higher education programs medium colleges, universities and graduates as the nation's needs, but also it coordinates all training programs with the relevant authorities.

As well as, GDHRD supervises of the Ministry of Health training centers to ensure that it meets the required conditions for recognition locally and internationally. It also establishes a special control regulating the practice of health professions and holding practice license exams. Furthermore, GDHRD maintains the stability of the Human Resources in the

ministry facilities through the motivation and capacity development and integration assistance in the work leading to job satisfaction.

Finally, GDHRD supports scientific research and update lists of research topics of priority to the needs of the Ministry of Health and the developments of the health situation (GDHRD, 2019a).

### 1.10 Medical internship program in Gaza

In Gaza, Internship training started many years ago by the bureau of the GDHRD in the Gaza strip. GDHRD states in its official training guide booklet that the internship program is a transitional period between the stage of medical students and future doctors. This is a 12-month period, which is designed to ensure that graduates of medical schools acquire the necessary skills to work and qualify them to be ready to practice in the medical field.

The duration the internship program is divided into two months for each major rotation (Internal Medicine, General Surgery, Pediatrics, Gynecology), one month in primary care, accident and emergency, Anesthesia and intensive care unit, Psychiatry for two weeks for each rotation and elective six weeks (four weeks Special medicine and two weeks Special Surgery or vice versa). This program was modified in the duration of some subspecialties, but not approved when the researcher writing the thesis.

It is mandatory training for graduates of medical schools and a prerequisite for obtaining a medical degree in Palestine. The number of intern's doctors that enrolled in the internship program since 2013 (starting the use of a computerized system) until 2018 is 920, with 206 interns' doctors that are currently enrolled in 2019, are distributed in different training centers in the GS (GDHRD, 2019b).

### 1.11 Educational hospitals

There are 16 clinical training centers for the MI program (12 hospitals & 4 primary health care centers) covering all the GS governorates. Some centers are complex hospital-like Al Shifa medical complex in Gaza and Naser medical complex in Khan -Younis at this big center all specialists are available for training.

Other centers are small, specialized hospitals for pediatric, ophthalmology, psychiatry, and gynecology. In each training center, there is a training coordinator and supervisors in

different departments, Most of these training centers include lecture halls of continuous learning that help in the training process for both medical staff, interns and trainees (GDHRD, 2019b).

## 1.12 Definition of terms

### 1.12.1 Medical Internship (MI)

Medical Internship is a supervised period spent in different clinical specialties, following graduation and after the completion of educational requirements from the medical school (Al-Moamary, 2014).

### 1.12.2 Evaluation

Evaluation is an independent, systematic investigation into how, why, and to what extent objectives or goals are achieved. It can help the foundation answer key questions about grants, clusters of grants, components, initiatives, or strategy (Fay Twersky. F & Lindblom, 2012).

# Chapter Two

## Literature Review & Conceptual Frame Work

### 2.1 Conceptual framework

A conceptual framework is a tool used by researchers to develop a framework for their research studies, where it makes it easy for researchers to find links and relationships between existing literature and their research objectives and goals (Miles & Huberman, 1994). The conceptual framework is explained either graphically or numerically, the variables, the main areas to be studied and the assumed relationship between them (Miles & Huberman, 1994). Also, it helps to identify important variables and their potential relationships (Bordage, 2009).

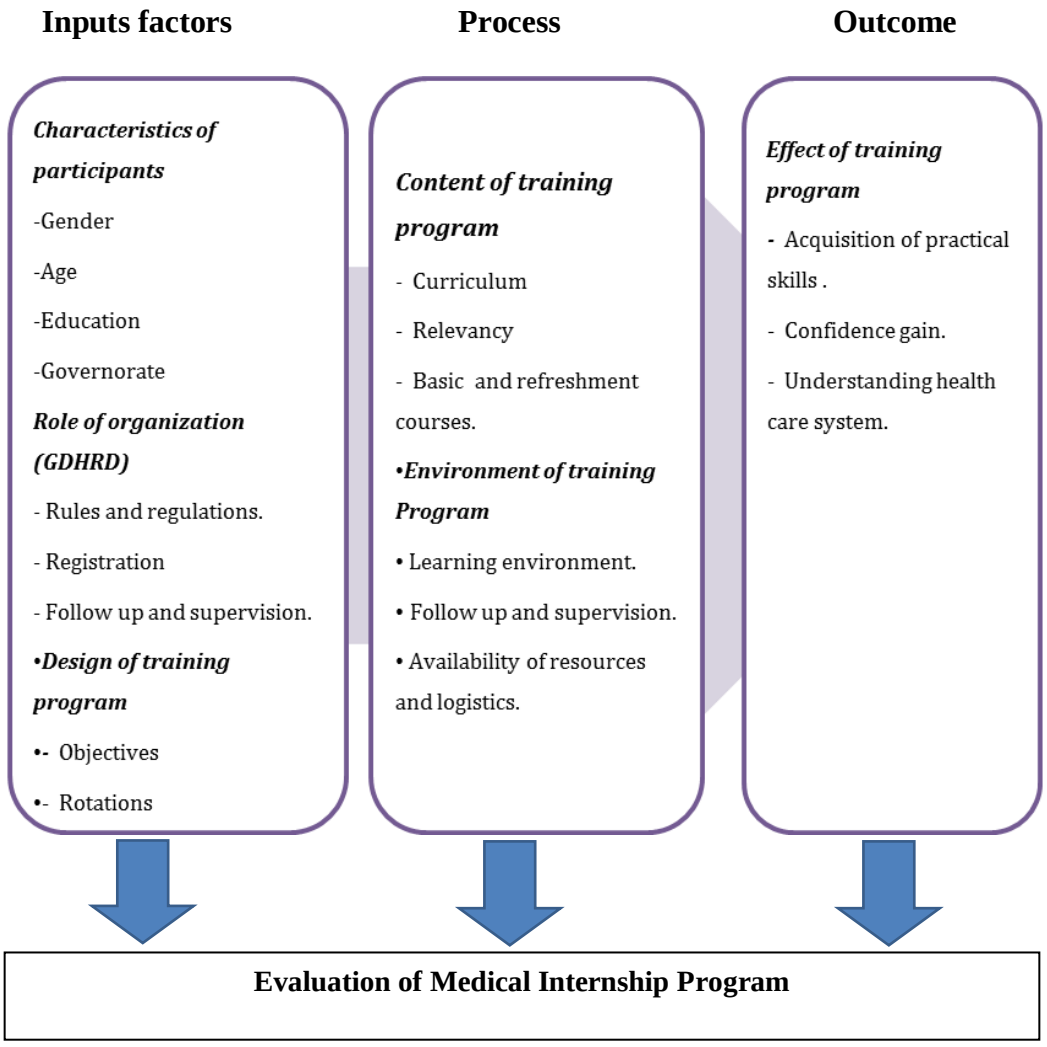


**Figure (2.1):** Conceptual Framework

Figure (2.1) demonstrates the different dimensions that affect the MI program. Each dimension contains domains and each domain contains variables. According to Donabedian Model, those dimensions can be summarized under the headings of input factors, Process factors, and output factors (Donabedian, 1988).

### 2.1.1 Input factors

#### 2.1.1.1 Characteristics of participants

Evaluation of MI may be affected by participant socio-demographic characteristics, including gender, age, marital status, place of residence, if there is any family member who is physician, education, and place of graduation are important factors that may affect the participant's perception about the training program.

#### 2.1.1.2 Role of organization GDHRD

The role of GDHRD is managing the program from the beginning of the trainee enrollment, including administrative procedures for the registration process, clarify the objectives of training and duties required from the trainee, coordinate with the training centers and trainers in relation to the training process, follow-up and field supervision, follow-up evaluation process. In addition to the arrange of updating and specialized training courses for intern doctors.

#### 2.1.1.3 Design of training program

Designing the medical internship program starts with setting a clear and realistic objective for the internship program. It should include the basic rotations of the intern doctor in addition to specialized skills courses and courses to enhance the personality of the intern doctor.

### 2.1.2 Process factors

#### 2.1.2.1 Content of training program

The content of the training program includes a list of skills for each training rotation. Also, it allowed the intern doctors to deal with common medical conditions in addition to other important aspects that support the personal growth of the doctor such as legal aspects, communication, etc.

#### 2.1.2.2 The environment of the training program

The training centers working on creating the appropriate environment (learning environment) to facilitate the training process which allows exposure to the real work circumstances that could enhance skill acquisition, follow up the trainee administratively and technically in an atmosphere of mutual respect and support. The training centers are supposed to be suitable for the training process, well equipped and have all the training requirements.

### 2.1.3 Output factors

#### 2.1.3.1 Effect of the training program

The effect of the training program in achieving the training objectives. In terms of acquiring practical skills and experience, applying what has been studied on the ground, gaining the ability to deal with common medical conditions, which enhances the doctors' confidence and their clinical abilities, as well as understanding the health system, the work system within the training centers. It acquires additional skills such as teamwork and work under pressure, communication skills, etc., in addition, to guide the intern doctors to choose the appropriate future career.

### 2.1.4 Evaluation

A literature review revealed different definitions for evaluation. One of the definitions is a systematic and objective assessment of an on-going or completed project or program, its design, implementation, and results. The aim is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact, and sustainability (Austrian Development Agency, 2009). World Health Organization (WHO), defined evaluation as a systematic examination and assessment of the features of an initiative and of its effects, in order to produce information that can be used by those who have an interest in its improvement or effectiveness (WHO, 1998).

Evaluation is a process in which corporate activities and performance results are monitored so that actual performance can be compared with desired performance (Wheelen, Bamford, Hoffman, & Hunger, 2014).

The evaluation process is defined as, the act of collecting and providing information. This makes decision making and strategy formulation easier for decision-makers (Fitzpatrick, Sanders, & Worthen, 2010).

### 2.1.5 Purpose of evaluation

The evaluation process is an assessment of the amount or the value of something (Simkins, 2004), Evaluation is the process in which any organization controls its activity and performance results are monitored. It compares the actual performance or achievement with the desired performance, allows the decision-makers and planner to take feedback for their action, to use the result to correct any underperformance or to take corrective action and intervention. Nevertheless, evaluation is a mandatory step it dons as a final step for any strategy (Wheelen et al., 2014), Evaluations contribute to secure the optimal quality and impact of development interventions. They also help managers of projects and programs to manage and improve their implementation and with the assistance of evaluations, successes and failures can be interpreted. Based on those experiences, both current and future projects and programs can be improved (Austrian Development Agency, 2009).

## 2.2 Literature review

### 2.2.1 Introduction

The internship year for new medical graduates provides an important opportunity for personal development and career planning (Swaid, Elhilu, & Mahfouz, 2017). MI aims to provide intern doctors with the cognitive and practical skills needed to offer professional care for the patients. It gives interns an opportunity to learn and practice patient communication skills that are essential in the medical field. An intern can ascertain personal goals that are possible within a specific time frame (Guerrero, 2019).

This chapter will discuss the different domains regarding the MI program and the structure of the MI program globally, regionally and nationally.

### 2.2.2 The importance of the medical internship program

The MI program is a transition from a medical student to a doctor, where an intern works in the hospital environment. Here they get to identify the practical aspects of many things they have learned in medical college by interacting with patients, discussing with peers and seniors. From opening the intravenous lines, catheterization, inserting nasogastric tubes, assisting in surgeries they even get to the further extent of performing independent minor surgery and endotracheal intubation. This training also helps the intern doctors to discover the area where they would fit in the future (Dangol, 2008).

Furthermore, internships enable trainees to master their abilities and gain sufficient confidence to take appropriate action, enhance their medical knowledge and promote important attitudes and values, prepare trainees with the practical knowledge and skills of medical practice to become independent and skilled medical professionals with safety responsibilities towards patients, health systems and communities (Sein & Tumbo, 2012).

Moreover, MI provides interpersonal skills and professional growth opportunities to intern doctors and equips them with proper communication skills in the medical environment (Guerrero, 2019).

Another important aspect of the internship is to make the intern doctors able to diagnose clinically common disease and conditions, use obviously the essential drugs, infusions, blood, and its substitutes and laboratory services, manage all types of emergencies by providing first-level care, develop leadership qualities to function effectively as a leader of health team and provide services to chronically sick and disabled (Kulkarni, 2017).

Also, another important aspect of MI is improving the intern doctor's confidence, their ability to working under pressure, teamwork, and a better understanding of the health care system as it will be illustrated in this chapter.

## 2.3 Structure of the medical internship years globally

In Australia, the medical graduates are temporarily registered with the Medical Board of Australia (MBA) until satisfactory completion of the internship, upon which the MBA then confers general registration. The requirements for satisfactory completion of the internship have, for many decades, been essentially time- based and required completion of specified 'core' terms/rotations – in emergency medicine, medicine and surgery generally undertaken as three 10-week terms (8 weeks for emergency medicine), with two further 10-week 'non-core' terms in other clinical disciplines completing the intern year. Interns are formally assessed in the workplace regarding their performance in these terms, with satisfactory completion of all terms being required before the granting of general registration. The PGY2 and other prevocational years, similarly comprise short terms/rotations, usually a minimum of 3 months each; however, there is no requirement for specific or 'core' terms (MBA, 2019).

The UK Foundation Program has structured a two-year program, that is regulated by the postgraduate student deaneries affiliated with the universities and medical colleges. since 2005 involves trainees in the training program rotating through 6 positions/terms over a two-year cycle., supported by the Foundation Program Curriculum (UKFP, 2019).

New Zealand's medical intern training program is supervised by the Medical Council of New Zealand (MCNZ) and includes both postgraduate years 1 and 2. Interns undertake in general for thirteen-week clinical attachments per year, aligned with the New Zealand Curriculum Framework for Prevocational Medical Training which has been modified from the Australian Curriculum Framework for Junior Doctors (ACFJD). This has been

supplemented from 2015 by the introduction of an e-portfolio, which forms a record of the intern's development and performance during clinical attachments and it includes a professional development plan, a skill log, end of term assessments, a record of clinical professional development activities, and outcomes from multisource feedback (MCNZ, 2019).

## 2.4 Structure of the medical internship years some neighboring countries

In Saudi Arabia, the MI program starts when the student finished all requirements of university graduation successfully. And spend 12 months in clinical training, this year, consider as a part of studying medicine and without this year, the student considered not qualified to practice medicine.

There is an intern's office (reported to the deputy of academic affairs) responsible for all interns training and these responsibilities consist of all administrative arrangements of interns, follow up the training process, enhancements of the intern's practical skills through practical training programs...etc.

The interns must start the program immediately after finishing the university study, the internship program consists of the two-month period for each medical department (internal medicine, general. surgery, pediatric, gynecology, emergency, and last two months is elective) (Al-Moamary, 2014).

In Jordan, the Jordanian medical council (JMC) is responsible for the MI program, and the medical student who finished the university study must be registered in the JMC before the starting the internship program, the interns spend 12 months in the program as follows (three months in internal medicine department, three months in General surgery, two months in the pediatric department, two months in gynecology department, One month in emergency and the last month in public health).

The JMC is responsible for distributing the registered interns to qualified hospitals (must have the four main branches of medicine and more than 100 beds) according to the training capacity of these hospitals (JMC, 2019).

In Egypt, the MI program used to be a one-year training like in Saudi Arabia and Jordan until 2018 after which decision No. 565 of 2018, decided to revise the text of Article 154 of the Executive Regulations of the University law. They amended the duration of study to obtain the Bachelor of Medicine and Surgery to become 5 years of credit hours or points and two years of internship, instead of 6 years and a one year of internship curriculum, to be applied to new students enrolled as of the academic year 2018/2019 (Legal portal of the Court of Denunciation, 2019).

## 2.5 Structure of the medical internship years in Gaza

In Gaza, Internship training started many years ago by the bureau of the general directorate of human resource development (GDHRD) in the Gaza strip. This is a 12-month period, which is designed to ensure that graduates of medical schools acquire the necessary skills to work and qualify them to be ready to practice in the medical field. The duration of the internship program is divided into two months for each major rotation (Internal Medicine, General Surgery, Pediatrics, Gynecology), one month in primary care, accident and emergency, Anesthesia and intensive care unit, Psychiatry for two weeks for each rotation and finally six weeks elective (four weeks Special medicine and two weeks Special Surgery or vice versa) (GDHRD, 2019b).

## 2.6 Evaluation of the medical internship program globally

Studies that had been undertaken in the past suggest that the learning of practical skills receives inadequate attention during internship training.

In Ireland, research aimed to evaluate skill and self-reliance obtained through MI for 152 graduates from Edinburgh University Medical School found that the intern makes few practical measures and some may be arrogant in their own skills and less than 15% of interns had carried out five or more common practical measures after their first post (Clayton et al., 2005).

Also, In Ireland, another paper investigated the level to which graduates were assisted in gaining a range of competences and experts. A 25% random sample of 1996 graduate intern from the five medical colleges was chosen with overall response rate was 88 %, the researchers illustrated that Official training and education through the internship year observed to be poor, 91% of participants noted that they were not prepared for all the skills

needed as an intern, History taking and investigative abilities were considered to be well covered at the undergraduate level, but little training was gained in a variety of personal and professional skills. However, some skills and characteristics were enhanced through the internship year as a result of work experience (Hannon F, 2000).

Another study revealed that the majority of interns (64%) feel prepared for their clinical rotation. A wide variation in the number of skills taught during the medical degree program is evident. Only three skills were taught to all interns, namely, intravenous cannulation, basic life support, and suturing. Interestingly, despite this difference, there was an absolute agreement that those who had received less pre-graduate training had, in essence, caught up and attained the same levels of proficiency within a few weeks of starting their first post owing to repeated clinical practice. And this study showed the need for standardization in the clinical skills training to ensure that all interns enter practice with equal competencies (Morris et al., 2016).

In 2005, a two-year foundation program was introduced in the UK to overcome fears about the quality of training during internship training. This program guarantees that new graduates are prepared with the skills, attitudes, and abilities at the beginning of their future careers. The program includes evaluation tools including an educational portfolio that reflects their abilities and practices (Thomas, 2005).

In 2014, An autonomous evaluation of medical intern training appraised the medical internship model and suggested possible changes to support the medical graduate transition into practice and additional training according to an Australian report (Wilson & Feyer, 2015).

Another study conducted in the UK aimed to investigate the trainees' opinions of their improvement. It showed that the new doctors had not valued their progress, of practical expertise as great, total the pre-registration house officer (PRHOs) progressed generally in the 'proficiency' theme with not all the skills in the 'duties' theme being equally progressed (Hesketh et al., 2003).

Additionally, a study in the UK evaluation appraised doctors' insights of readiness using objective evaluation of basic medical skills and the impact of a prolonged clinical orientation program previous to start full duties. A group of 26 recently qualified

physicians from a local general hospital endured a prolonged 5-day, ward-based orientation program. The participants finished surveys on their own insights about their readiness for PRHO responsibilities and underwent an objective structured clinical examination (OSCE) of 4 basic medical skills previously inducted, on completion of induction and 1 month into working life, had indicated that newly qualified doctors were not adequately ready for internship responsibilities (Evans et al., 2004).

Another study conducted in the UK targeted to reveal the relationship between self-reported confidence and observed competence in a number of standard medical skills. It showed a wide range of skill levels for medical skills, with some doing at an insufficient level and self-reported confidence of interns varied largely from supervisors' evaluations of interns' competence (Barnsley et al., 2004).

Another study from the UK designed to establish why some new doctors view their training as a valued time in their professional improvement, while others see it as a year to be stood and survived. Included 237 (PROs) and 166 supervisors were Involved in the study. They found that the absence of official supervision and care were shared features linked with the first few days in the post. The first day in the post as a doctor is, for most, an experience that is hard to prepare for, even after a useful orientation period. Those PRHOs who felt they were not directed or guided on how to assume their new professional charges tended to feel underestimated as persons (Brown, Chapman, & Graham, 2007).

Another study from the UK explored whether newly graduated doctors have inadequate basic medical skills and to decide if the newly graduated doctors themselves or their mentors are concerned about them. 40 newly graduated doctors at UK Hospitals were invited to undertake an OSCE of basic medical skills. This study finds that newly graduated doctors may have lacked in basic medical skills. Neither the newly graduated student, nor their mentors recognized these deficits (Fox, Ingham Clark, Scotland, & Dacre, 2000).

In China, a study aimed to assess the effectiveness of the new medical management system on the quality of the internship and survey the users' satisfaction. Involving 672 interns (non-user group) didn't use the system and 315 uses the system (user group). They investigated the grades of their theoretic education and clinical skills before and after the internship, which served as the quantitative standards for assessing the effectiveness of the system.

An analysis of the gathered scores showed that the user group had more significant improvement in both clinical knowledge and skills than the non-user group after the internship. Most of whom agreed with the system's help of learning theoretical education (98.1%, n=304) and clinical skills (93.9%, n=291). The results showed that 96.3% of the educators thought the system to be supportive of enhancing learning quality, and 92.6% of managers think it was helpful for implementing management. Over 90% of the participants in the 3 user groups reported strong satisfaction with the system. With a high level of user satisfaction, this system helps to strengthen the management for interns and improves the medical knowledge and skills of interns. Therefore, it could be broadly used in medical schools and even in other areas (Xia et al., 2019).

In South Africa a paper aimed to investigate the influencing factor in medical intern training at training centers, this study found that effective training of interns is facilitated by factors such as the environment that offers training chances, good supervision, support of the organization, personal characteristics and rational workload.

On the other hand, learning is hampered by poor supervision, inexperienced supervisors, lack of opportunity to learn, poor support system, indiscipline, indifferent managers, lack of equipment, poorly organized academic sessions, unreasonable workload and the fear of professional and medico-legal hazards (Sein & Tumbo, 2012).

Another study from South Africa aimed to assess the experience of intern doctors in the medical internship program and whether they thought they are sufficiently prepared to be a physician or not sufficiently prepared, with a 72.1 % response rate.

The majority of the study respondents (87.2%) illustrated that they think the internship prepared them well for public service and 65.0% were positive about the supervision they took. However, only 52.5% felt that they were properly orientated.

Medical interns felt positive about their skills and admitted they were better prepared for their careers, but in some rotations, inadequate supervision and absence of induction period obstructed on the internship practice, workload, scarcity of resources, inadequate staff and work environment at training centers is the main push factors (Mofolo & Botes, 2016).

Additionally, there are many studies from S.A. evaluate the medical internship program agreed in main findings with the previous studies, such as (Nkabinde, Ross, Reid, &

Nkwanyana, 2013) ; (Naidoo, Van Wyk, & Adhikari, 2017) ; (Ross, Naidoo, & Dlamini, 2018).

Another study evaluated internships at the university based on a survey of 185 interns in the internship program. The result was that student satisfaction with the quality of the training program was 50.2%. There was a relationship between satisfaction with theoretical and practical tests and clinical learning. On the other hand, they do not have much relationship with demographics, work setting, duration of the training, and satisfaction of study participants (Fereshteh, Hossein, & Shayan, 2016).

Another Iranians study shows that training medical students in common practical skills were undesirable. The results of the assessment of the program of the clinical learning in internship rotations regarding internal medicine, surgery and maternity wards were undesirable with emphasizing on the absence of a design for the course (Emami, Davari-Tanha, Hosseini, & Farzanehnejad, 2010).

An evaluation to appraise the interns' satisfaction conducted at Shahid Beheshti University of Medical Sciences, Iran the participants of this study were 92 females 65.2% and 49 males 34.8%, This study illustrated that all domains had gaps. Medical interns were not satisfied with their internship. (89.9%) of interns illustrate that they do not get the required preparations for their future profession. (84.4%) think that they do not get adequate supervision, Majority of interns (89.4%) think that they should have time to rest during duty in a suitable place (Heidarnia & Yasin, 2013).

Another study from Iran aimed to evaluate intern' satisfaction with medical learning throughout the medical internship and the influences of variables in the organizational domain on satisfaction. Students' satisfaction was evaluated by a tailored job satisfaction survey. Medical learning was classified into; theoretical learning, bedside, and outpatient find that overall satisfaction with clinical practice was 38.8%, outpatient and bedside teaching 52% each and theoretical learning 70.8%. Overall satisfaction had an important relationship with a variety of diseases, and the course design (Ziaee, Ahmadinejad, & Morravedji, 2004).

In Bangladesh, a study aimed at evaluating internships in medical colleges, data was collected from 4 public medical colleges and 4 non-governmental medical colleges. The

sample size was 250 trainees and 50 teachers. The results of this study showed a significant gap with regard to the evaluation of trainees in Bangladesh. The majority of the study sample said that there is no present evaluation after completing the main rotations. Moreover, only the logbook is signed as the main evaluation method. And the assessment feedback system is not fully functional. Therefore, the entire situation is unordered and offers doubts about the future skill set of intern doctors (Noman et al., 2017).

Other studies in Bangladesh illustrate the skills obtained by the intern doctors were satisfactory, but some challenging areas such as less time of training rotation, no public post, availability of training aid, lack of supervision as well as feedback, which hampered in attaining their satisfaction with their skills. Thus, to ensure quality in all sides of the internship training program, intern doctors need to develop adequate skills in most of the clinical areas of their regular practice. There are many areas for additional enhancement through evaluating and improving the internship training program as well as the logbook and strengthening the clinical environment in the training centers (Hossin et al., 2017).

Another study evaluated the experience of the medical student and intern in common clinical procedures. The trainees working in a metropolitan educational hospital from 2000 to 2004 conducted a survey of experience and confidence in clinical procedures at the beginning and the end of the trainee year, 314 trainees participated in the study with response rate was 70%. The clinical experience varied for each procedure and between year groups as did a training program attending (44-84%). The procedural confidence of the student was predicted by the pre - trainee experience either on patients or by simulations, the results showed that trainees and students receive a varied experience to implement procedural skills on patients. This makes the design of training programs difficult because training needs vary each year. There is a need for mandatory supervision of the basic skills and opportunities to complement the limited experience during the trainee year to ensure a standardized experience (Boots, Egerton, McKeering, & Winter, 2009).

## 2.7 Evaluation of the medical internship program regionally

According to Kuwaiti study aimed to evaluate the performance of key clinical skills throughout the medical internship training period and self-confidence for later implementation, of 124 trainees eligible for the study, received 91 responses (response rate: 73.8%). Illustrated that both rate and self-confidence in the implementation of key clinical skills were varied, and for some skills, were not satisfactory. Also, it's recommended that the trainees who are not competent in basic, clinical skills need to be identified early and take remedial action. And the action-oriented to address weaknesses should be applied during internships (Premadasa et al., 2008).

In 2015 a study designed to discover the opinions of interns joined in the Jazan University internship program throughout the year 2015. (83.5% response). They revealed that there is no considerable variation in gender regarding satisfaction with training in the different rotations and there is a significant percentage of intern's lack orientation about what to expect from internship and that the main source of information is senior colleagues, it is also clear that the training quality is varying across the major departments and that there are some problems in obstetrics and gynecology training. It is also obvious that satisfaction is increased by gained effective training (Swaid et al., 2017).

Another study in Iraq aims to assess the clinical skills, experiences of Iraqi medical schools and to remind policymakers on the intern's doctors skill level in order to achieve good internship training and safe health service, find most of the respondent's master one-third of the basic skills (pulse, respiratory examination and simple suturing) even though none of these skills is relevant to the lifesaving procedures, most are of communication skills and basic clinical examination procedures.

On the other hand, less than half of the graduates feel having proper performance in two-third of the listed skills which are relevant to the basic clinical and other medical responsibilities. None of the graduates has the skill to perform four important lifesaving procedures. Less than one third can perform basic diagnostic and therapeutic professions, additionally, most of the graduates are unconfident about the sufficiency of the learned clinical skills and theoretical background and the clinical skill level of the graduates is under desirable standard and every effort is needed to revise the educational curriculum in order to offer more eligible professional outcomes (AlHelli, 2010).

## 2.8 The role of General Directorate of human resources development (GDHRD) in the training program (Management of the medical internship program)

The GDHRD is officially responsible for all training programs in MOH including the MI program, the responsibility of the GDHRD is to manage the MI program and to facilitate the training for the intern in the training centers by receiving requests for training and review documents to confirm their validity and fulfillment. Additionally, explain the registration process, provide a definition of the program, clarify the objectives, ensure the knowledge of the trainee according to their rights and duties as well as follow-up training centers, organize the field supervision, follow-up assessments of doctors in different rotation and organize the training courses to improve their skills.

Some of the literature illustrated the effect of management in improving the MI in a study aimed to demonstrate that the new system of medical training management network can lead to the completion of self-management and self-improvement of trainees and clinical teachers and can be of great help to those responsible for teaching. It explained that more than 90% of participants in the three user groups reported strong satisfaction with the new Medical Internship management system. This system helps to enhance the management of trainees and improve the medical knowledge and skills of trainees. The new medical training network system in China generally meets the requirements of the internal training department, regardless of the number of trainees and geographical constraints. Improving the theoretical knowledge and practical skills of trainees through enhanced management has been shown to be beneficial (Xia et al., 2019).

On the other hand, the effect of the poor management system clearly obvious according to study conducted in Bangladesh illustrated the problems in their training program such as less time of training rotation, no public post, availability of training aid, lack of supervision as well as feedback, were showed which hampered in attaining their satisfaction with their skills (Hossin et al., 2017).

Moreover, supportive management in training centers is one of the main factors contributing to effective training for medical interns and contrast hampered by a weak management system (Sein & Tumbo, 2012).

Also, this is confirmed by another study aimed to explore internship satisfaction, they found a positive association between internship satisfaction and organization satisfaction (D'Abate, Youndt, & Wenzel, 2009).

As summarizing from all discussed literature, the importance of effective and supportive management plays a vital role in building a successful training program during the internship period, as well as obtain positive feedback about the quality of the training process.

## 2.9 The design of the medical internship program

Many studies focused on the training design of internship programs and how it should be prepared, organized and evaluated periodically to get the best outcome.

A well-designed training program is at the core of the Medical Internship program in addition to acquiring problem-solving skills, decision making, rationality, creative thinking, exposure to the entire range of relevant clinical problems and the opportunity to acquire appropriate attitudes, communication skills, and other competencies should all be included in the program design (Hannon F, 2000).

A recent study from the UK concluded that the changed and redesigned curriculums of the training programs may add value, including the potential to improve the attitudes to specialties previously learned in silos, such as psychiatry. And become more positive about psychiatry as a career for themselves and others, compared to students in the old curriculum (De Cates, De Cates, Singh, & Marwaha, 2019).

Also, a well-designed training program leads to a positive attitude toward practical training. According to the analysis in Iran, it aimed to assess intern satisfaction with medical learning during the Medical Internship program (Ziaee et al., 2004).

Moreover, internship program design in the UK has resulted in a major and significant improvement in students' perceptions of their preparedness for hospital practice, in the areas of confidence, collaboration, preventative medicine, and interpersonal skills, major improvements are achievable by well-designed program (Scicluna, Grimm, Jones, Pilotto, & McNeil, 2014).

Additionally, the efforts of curriculum development have been hampered for two decades by a failure to take into account the need for ongoing staff development. In the face of inadequate numbers of clinical teaching staff and limited resources, alternative methods of providing a satisfactory clinical experience may be necessary (Hannon F, 2000).

Furthermore, the design of a medical course can influence the preparedness of medical students for clinical practice (Dare, Fancourt, Robinson, Wilkinson, & Bagg, 2009).

Additionally, designing training programs is difficult as the training needs vary annually as highlighted by (Boots et al., 2009).

Also, the curriculum reform is not easy to establish in Australia for example, it was subsequently noted that specific barriers to implementation of the Australian Curriculum Framework for Junior Doctors (ACFJD) included a limited knowledge and understanding of the ACFJD, limited usage by supervisors and medical educators and limited use by junior doctors including relating the curriculum content to their rotations (Mackinlay, Jelinek, & Weiland, 2011).

Another important aspect in program design is to consider the principles of adult learning as Graham noted in his study that the curriculum framework was underpinned by the principles of adult learning, recognition of prior learning, regular feedback and reflection, and practice-based learning and it was intended to integrate with curriculums for undergraduate and vocational training programs (Graham et al., 2007).

Also, curriculum design has an influence on interns learning achievement, according to a study aimed to discover the influence of curriculum design in the achievement of learning in oncology (Fernandes, Aalders, Bremers, Tio, & de Vries, 2018).

Moreover, Structural changes to internship program may be required to ensure that it is an appropriate, safe clinical learning environment where interns can undertake activities at the peak of their scope of practice by being engaged in the healthcare team and clinical care (Ahern, Reid, Temple-Smith, & McColl, 2017).

As it was mentioned above in the literature, there are many opinions explain that the program design needs to be evaluated periodically to achieve the desired outcome from the program.

## 2.10 The content of the medical internship program

A permanent feature of modern medicine is the constant changes in medical education and training in medical teaching strategies. Despite the claim that with the medical school plurality comes diversity, the purpose of medical schools still the same to produce a graduate who has the attributes and obligation for lifetime learning and a strong foundation on which to develop a clinical and professional career.

The aim of medical education is to develop junior doctors who have characteristics that will ensure that they are primarily able to practice safely and effectively as intern doctors and that they have a proper foundation for permanent learning and for further training in any field of medicine.

Medical education is a continuum from medical school to independent practice, but the internship year, which is intermediated between the university study and vocational training, is crucial in the pursuit of good medical practice and good doctors. the internship year has been described as a missed opportunity for medical education.

The factors responsible for this poor achievement of this goal are many, including an unspecified curriculum; training teachers who lack time and competencies, the way teachers are trained varies. The clash between service delivery and education priorities; changing resources for teachers, program supervisors.

But at the core of the lost opportunity has been the lack of a relevant and rigorous national curriculum (Lake & Landau, 2007) ; (Weyden, 2007).

Jolie highlighted that the launch of a national curriculum framework for junior doctors as an important step in the development of medical education. However, it is not enough to create a practical curriculum for junior doctors.

This is because defining basic content alone will go only part of the way to creating a "curriculum" that will drive learning for our junior doctors. Any curriculum requires at least four interactive components, of which content is only one. In addition, there is a need for a coherent and consistent set of aims and objectives related to this content, teaching and learning strategy and an evaluation program focused on monitoring the outcomes are required (Jolly, 2007).

Additionally, a study from Iraq concluded that; The clinical skill level of the graduates is under the desirable standard and every effort is needed to revise the educational curriculum in order to offer more eligible professional outcomes (AlHelli, 2010).

Furthermore, a qualitative study titled the effectiveness of the internship in meeting established learning objectives intended to recognize and discover the differences in intern experience in clinical activities outlined by an established early postgraduate curriculum within the contemporary health service environment. The majority of interns approved that their clinical skills during the year (according to the global satisfaction question) had met curriculum objectives. The results also show that the mean rating for intern experience by different curriculum categories varied significantly, therefore, they suggest that ongoing, regular postgraduate curriculum review is essential for medical training to modify alterations in current health care delivery (Ahern et al., 2017).

In addition, issues such as teamwork, ethics, trust, professionalism, and communication, (hidden curriculum) which are critical to the provision of good medical services, have not been addressed (Sein & Tumbo, 2012).

The hidden curriculum shaped their understanding of what was expected of them as new doctors and inspired dysfunctional strategies to meet expectations such as attitude, values, and ethics.

Solutions to make the experience more positive one lie in the approximation of the roles of senior medical students and newly qualified doctors, in explicitly addressing the hidden curriculum and generating cultural change and more emphasis on experience-based learning through contribution to patient care, guided reflection on the hidden curriculum and shifting cultural expectations through faculty development and strong local leadership can contribute to these objectives (Coakley, O'Leary, & Bennett, 2019).

Another study conducted from Kuwait draws attention to the effect of the training content, the hidden curriculum, and customs on the intern's opinion of professionalism showed that medical instructors should take into account such effects when learning and evaluating professionalism (Al-Abdulrazzaq, Al-Fadhli, & Arshad, 2014).

As was illustrated previously in the literature, the significance of the content of the training program and its impact on the intern doctors, in addition to the importance of its diversity and to include of many aspects such as practical, administrative, personal, etc.., which contributes to enhance the personality of the future doctors.

## 2.11 The environment of the medical internship program

As illustrated in the literature, training environment plays an important role in the training process, it is important that the training environment is appropriate and well prepared for the success of the training process. There are important factors that are a prerequisite for successes of training such as good management, follow-up, supervision and availability of logistical capabilities, number of trainees should be proportional, in addition to providing a special place for trainees for rest, change clothes, As well as mutual respect between medical staff and trainees.

Enhancing the learning environment was seen as key to the success of an intern program (Hannon F, 2000).

### Learning Environment

The learning environment is defined by The World Federation for Medical Education (1998, p. 553) as one of the targets for the evaluation of medical education programs and UK Standing Committee of Postgraduate Education (1991) stated that learning environment were essential to a working environment that is encouraging to learn.

Widespread data propose that learning environment are formed by four factors: one, the setting, context and the goals of the learning process; two, the character, abilities, desires, and enthusiasms of the learner and the tutor; three, the effect and the assistance of the host organization which provides financial and administrative support to the tutors, learners and the program itself; four, the impact of external factors such as the social, cultural, healthcare and educational factors within the learning context (Hee et al., 2019).

One of the aims of MI is to allow interns to apply, strengthen and prove competences and performance in the work environment as part of their progress to independent practice (Wilson & Feyer, 2015).

A study aimed to evaluate the satisfaction of interns by observing three general factors (i.e., job properties, work environment properties, and contextual aspects), which may influence to internship satisfaction. It showed that the properties of the job (specifically, task significance and feedback) and properties of the work environment (in specific, learning chances, supervisor assists, and organizational satisfaction) were the best predictors of internship satisfaction. The work environment characteristics being the most important predictor of internship job satisfaction (D'Abate et al., 2009).

Moreover, the learning environment had the strongest association with overall training satisfaction score, followed by the clinical supervisors, and physical environment domains (Cannon et al., 2008).

Additionally, the reasons that improve the learning environment were identified. These included being supported, a feeling of being a valued member of the team, being loaded, but not overloaded, having a wide range of experiences, understanding the system, having a clear responsibility and being well organized. Factors inhibiting the learning environment included fractured working patterns, insufficient time with patients and seniors, as well as the converse of many of the enhancing factors (Kendall, Hesketh, & Macpherson, 2005).

Furthermore, structural modification of the internship may be essential to confirm that it is a suitable safe clinical learning environment where interns can carry out activities at the highest of their scope of practice by being connected in the healthcare team and clinical care. Also, the medical schools need to make sure that students are given with early exposure to clinical environments which allow for constant 'significant' contact with patients and raising the chances to 'act up' to the role of the intern doctor. In addition, graduates dwelt on how working circumstances influenced professional relationships, the learning environment, and safe environment, raising experience and self-confidence gaining without affecting the patients' safety (Minha et al., 2016) (Hannon F, 2000) (Ahern et al., 2017) (Brennan et al., 2010).

Additionally, helpful relationships can facilitate individual growth by offering a protected, respectful environment in which listening, questioning, feedback, and reflection occur. Also, Environments in which patients experience excellent health care are also those providing the highest standard of education and training. Moreover, practicing in the clinical environment gives interns the chance to assess themselves and see where they

stand concerning the level of learning and skills paralleled to an official physician (Swaid et al., 2017) (Thomas, 2005) (Levine et al., 2006).

In spite of not much attention has been given to the potential positive impact on patients when care is provided in an environment in which education is valued. moreover, the intern is working in an environment where their learning is suitably facilitated, they are more likely to recognize their progress in their professional development and be more taking the initiative in addressing interests about professional expectations.

in contrast, poor infrastructural support at the organizational level, too much patient load, excessive work hours and sub-optimal supervisor communication for mentoring and continuing evaluation impacted on the concept of a standard learning environment (Naidoo et al., 2017) (Brennan et al., 2010) (Brown et al., 2007).

Another important factor in the training environment is the working load as illustrated in a study examining the relationship between prolonged working hours and medical errors made by interns find that interns made considerably more critical medical errors when they worked frequent shifts of 24 hours or more than when they worked shorter shifts. Removing prolonged work shifts and decreasing the number of hours interns work per week can reduce critical medical errors in the intensive care unit. (Landrigan et al., 2004).

As was mentioned above in the literature, the importance of the training environment in facilitating the training process and equipped the intern with the skills required during the training period through a supportive environment for the training process.

## 2.12 The effect of the medical internship program

The internship year allows the graduated doctors to increase responsibility and practical experience, that considered essential in preparing the medical graduates for the intern role at the same time as a training process that focuses on learning, assisting the move from competence towards performance.

Readiness for practice was significantly improved resulting in the trainee intern year than has been informed with other pre-intern placements. According to a study aimed to assess the clinical and expert development that happens throughout the internship year. With response rate was 65% (457/702) shown that interns informed noticeably larger competence and performance levels across all three domains. The greatest improvement

occurred in the independent performance of procedural skills and clinical tasks and in the level of clinical responsibility taken. At the end of the internship year, 92% of intern felt ready to be a junior doctor (Dare et al., 2009).

Additionally, the skills and experience improved during the internship are such as the ability to evaluate and identify deteriorating patients, make clinical decisions, confidently, priorities tasks and know when to request for help understanding hospital processes and developing professional skills, such as teamwork, communication, multitasking, required to work effectively within the health system. And the role of the internship in supporting career decisions (Wilson & Feyer, 2015).

Another study aimed to explore the trainees' perceptions of their development. A total of 57 interns from Scotland were interviewed. Mainly obvious from the interview data was the interns' stress in the improvement of basic skills needed of working in the 'real world 'skills such as communication, team working and the ability to cope with the responsibility. Generally, the interns improved most strongly in the 'professionalism' domain with not all the skills in the 'tasks' domain being equally developed (Hesketh et al., 2003).

Also, several potential causes for individual growing offered during the internship according to the study was done throughout the internship period designed to understand the processes associated with individual growth through the internship included 32 participants from different colleges in U.S. (Levine et al., 2006).

A study designed to assess the intern's clinical performance in several unprepared clinical situations using video-based assessment. 24 interns throughout their Internal Medicine rotation. Intern's performance, assessed by the global rating scale for clinical competence, developed significantly throughout their rotation. However, the assessment of average scores showed that overall performance levels varied significantly depending on the regularity and difficulty of tasks (Bugaj et al., 2018).

A study intended to evaluate the impact of the rotating internship program applied in HMC (Hamad Medical Corporation) hospital on the cognitive capacity of the trainees, forty-five interns attending the training at HMC hospitals at for an interview that intended to evaluate their point of view in the different rotations using open-ended questions. Several rotations were given a grade from the intern's perspective. They sat for the NBME (National Board

of Medical Examiners Exam) twice; once before and once after the internship, it was found that the mean grades for the interns in their NBME exams were enhanced from 38.4 to 57.2 by the end of the training year. The mean scores given to different rotations ranged from 5.6 to 7.8 demonstrating a significant difference from the perspective of the students indicating a difference in the educational impact of each of the four departments that were assessed. The results showed that despite the rising opinions against the rotating internship there still exists a benefit in internship and it can be demonstrated in the academic achievement of the intern. There has been a demonstrated impact on the cognitive level of trainees and it has still been proven to be effective in other domains (El Tawil, Al Khal, Ahmed, & Helmi, 2011).

In a study aimed at testing whether young doctors improve their communication skills between graduation from the medical school and completion of clinical training, and exploring the factors contributing to the background and/or internship factor, among 62 out of 111 students who originally participated in the interview, Showed that the level of communication skills increased significantly during the period for participants in general; general social skills reached good levels above the specified professional skills, and both types of skills improved during study. At the end of the school, 50% reached a level known as an "advanced beginner". Toward the end Internal training, 58% to "capable" levels and 27% to "competent" communication skills.

The other major conclusion was that doctors from local hospitals showed a much higher level of communication skills when the training was completed compared with doctors from large hospitals. This variation appeared only in the sub-category of exact professional skills, not for general social skills (Gude et al., 2009).

Finally, pieces of the literature showed that the anxiety and from transition were decreased by the level of clinical experience gained during training (Berridge, Freeth, Sharpe, & Roberts, 2007) ; (Brennan et al., 2010) ; (Van Hamel & Jenner, 2015).

It is obvious from the previous literature, that all studies agreed that the internship program has a positive impact in providing the intern with the skills required to be prepared for their role as a future doctor, in terms of clinical skills, personality, social skills, which positively reflected in the health care system.

## 2.13 Summary

From the literature review, explains the importance of the MI program in providing scientific, practical and personal skills important to the future doctor. It is also clear that several countries around the world have evaluated and made reforms to their MI programs. Unfortunately, in Palestine, in general, and the Gaza Strip in particular, the researcher did not find any study on this subject, despite the importance of this transitional stage in the doctor's career life, the internship program on the same pattern without radical changes or any evaluation process.

The studies we have presented show that there is an urgent need for evaluation in order to improve the health care system, according to the conditions and needs of each country. The internship year is a link within the health care system in the specialization of the doctor in the future and that gives it important in order to evaluate the existing program, improve its performance, measure its impact and efficiency, that is the first study, conducted in the Gaza Strip as an evaluative study for the MI program in the Ministry of Health centers in Gaza.

# Chapter Three

## Methodology

This chapter discussed the methodology and information related to its data collection to analyze the research problem and answer the research questions; including research design, study population, eligibility criteria, instrument modifications, pilot study, data collection procedures and way of data analysis. The analysis includes investigation of validity and reliability of the modified instrument, limitations of the study and ethical and administrative approval.

### 3.1 Study Design

In order to evaluate the MI program, the researcher chose a triangulated, descriptive-analytical, cross-sectional design. The descriptive research method is the main research approach that examines the situation, as it occurs in its current state (Williams, 2007). Analytic research recognizes relationships between variables and creates new knowledge about concepts (Burns, Grove, & Stuppy, 1997). The cross-sectional design reveals the present facts at the same point in time of data collection, it is less expensive and it consumes less time than other longitudinal studies (Fathalla, 2004).

In this study, methodological triangulation would present an integration of **quantitative** (self-administered questionnaire to participants) and **qualitative** paradigms (in-depth focus group discussion (FGD) and key informant interviews (KII) to confirm results from one approach with another or to improve understanding of the facts on the ground (Donovan & Sanders, 2005).Quantitative research is concerned with measurement. Its goal is to precisely capture details of the empirical social world and express what we find in numbers (Neuman, 2014). While qualitative research may be described as being an interpretative approach to exploring phenomena or research design, methodology that considers ‘what’, ‘why’ and ‘how’ questions (Ritchie, Lewis, Nicholls, & Ormston, 2014). The qualitative section was achieved after the quantitative one in order to investigate subjects that appear from the quantitative analysis.

## 3.2 Study Population

It is a census survey, where the study populations include all of the medical intern doctors who finished the internship program between the years of 2017-2018, they are 353 participants and 5 key informants. The study population was divided into interns' doctors and stakeholders, each participant responded was divided into two parts quantitative and qualitative as follows:

### 3.2.1 Quantitative Part

The researcher took all of the medical intern doctors who finished the internship program between the years of 2017-2018. With a response rate of 88.7% (285\353 participants), to reach this response rate the researcher repeatedly calls the interns and reminded them to complete the survey through calls, SMS. and E-mails.

### 3.2.2 Qualitative part

This part includes the participants that finished the internship program into 6 Focused Discussions Groups (FGDs). The researcher chose them from the participants who voluntarily registered their phone numbers in the questionnaire to participate in the FGD.

The second part was the key informants (KII). It includes stakeholders who were selected by the researcher and supervisor then the researcher made 5 interviews with them. (Annexes 8)

## 3.3 Eligibility criteria

It included the inclusion and exclusion criteria for the study population

### 3.3.1 Inclusion criteria

Any intern doctor who finished the internship program in between the years of 2017-2018.

### 3.3.2 Exclusion criteria

Any intern doctor who finished the internship program before the year 2017 or after 2018.

### 3.4 Study setting

The study settings were in the general directorate of human resource development (GDHRD) at MOH and the training centers.

### 3.5 Study period

The study was conducted over 16 months; it has begun in June 2018 and finished by October 2019.

### 3.6 Study instruments

This study utilized various instruments for quantitative and qualitative parts:

**Quantitative part**

The first tool was a structured self-administered questionnaire, which was designed and developed by the researcher after reviewing the related literature, and supervised by the academic supervisor (Annex 4). The questionnaire was organized in a way that each item was given a serial number. It was translated into the English language with an explanatory letter (Annex 5).

**The questionnaire composed of four parts:**

The first part covers the socio-demographic data of the participants, the educational qualification of the participants and the place of graduation. It includes 10 questions.

The second part explores the intern perceptions about the training program using Likert's model scale with three options (agree (2), neutral (1), disagree (0). Total questions of the questionnaire were (87) questions divided into five domains like the following:

1. The role of the general directorate of human resource development in the training (GDHRD) (17 questions).
2. The design of the MI program (13 questions).
3. The contents of the MI program (24 questions).
4. The environment of the MI program (14 questions).
5. The effects of the MI program (19 questions).

The third part includes ten open-ended questions to clarify the participant's opinions about training programs regarding

- The strength points of the MI program.
- The weak points of the MI program.
- The opportunity/opportunities that have been used in the MI program.
- The most important challenges faced during the MI program.
- Proposals for change in the MI program.
- The most important skill acquired during the MI program.
- The most important proposal to improve the performance of the MI program.
- If part of the training was spent outside GS how can the local medical internship program be evaluated?
- The best and worst rotation and training centers during the MI program
- Finally, optional request to submit the mobile number if can participate in FGD

**Qualitative part**

The second tool is for the qualitative part, the semi-structured questionnaire contained 11 questions. Their design was founded on the early results of the quantitative data. This part of the questionnaire was made after the analysis of the quantitative part and translated into the English language (Annex 6). FGDs seek a participant's point of view, perceptions, and recommendations regarding the MI program. The focus groups aimed to add meaning, understanding of existing knowledge and topics. The researcher wanted to collect more in-depth data regarding the strength and weakness points in every domain, that explored more details, discussions, suggestions, and recommendations.

The third tool is the Key Informed interview. Five interviews were made by the researcher with each stakeholder to fill in the points related to his or her responsibility in the working field (Annexes 7).

Following, the completeness of the whole parts of the questionnaires, all participants were asked to fill in the online questionnaire by sending an email and SMS to all of them.

Web-based surveys can ease immediate input validation, automatically skip items that are unrelated to some participants, afford a faster response rate, and automatically shift responses into a data sheet for investigation (Ritter & Sue, 2007).

## 3.7 Ethical considerations

In order to start this study, the proposal was accepted by Al Quds University-School of the public health research committee for discussion and academic approval. Additionally, the revised International Code of Ethics Standards (1975), known as the Declaration of Helsinki, which is approved by the World Medical Assembly were followed and an official letter of approval to conduct the research was achieved from the Helsinki Committee (Annex 9). According to the Principles of the Helsinki Ethical Declaration, every study participant was given a clear and complete explanation of the research purposes, and confidentiality (Annex 4). Every participant in the study had the opportunity to accept or decline to participate in the study. Additionally, the participants who entered the study received verbal consent. Official permission was received for taking notes and recording the discussion of the focus group. To strengthen the integrity of the report, by protecting privacy and confidentiality, the researcher-maintained adherence to the Ethical Code Principles. The researcher expected additional ethical rights to be protected.

Official letters were sent from Al Quds University-School of public health to the Palestinian Ministry of Health for administrative approval, then it was obtained for the data collection process (Annex 11).

## 3.8 Pilot study

The study was divided into two parts, quantitative and qualitative parts as follows

### 3.8.1 Quantitative Part

For the quantitative part; a pilot study was done to assess the reliability of the questionnaire and to investigate the suitability of the study tools, the transparency of meaning and scales or rating. In addition, the pilot study design helps to assist many aims of the study. It was performed to expect response rate, time spent to fill in the questionnaire by the respondent, validity, and appropriateness of the questionnaire. Furthermore, this design highlights the points that need some modifications. 30

participants were included in the pilot study. According to the results of the pilot study, one question was removed and some were changed or some details were added to the other questions.

### 3.8.2 Qualitative Part

This part included one FGD that was performed with 8 participants from the study population, which allow for additional enhancement of the study regarding validity and reliability. At this stage; the questions were organized and developed to be more focused.

## 3.9 Data collection

### 3.9.1 Quantitative data

After the pilot study, the researcher sent the online questionnaires to all participants who met the inclusion and exclusion criteria, the average time needed to fill in the questionnaire ranged from 15-20 minutes. When each participant completed the questionnaire the data automatically transfer answers into a data sheet for analysis.

### 3.9.2 Qualitative data

This part started after finishing from quantitative data collection. the data were collected through semi-structured questions by the researcher. 6 FGDs were conducted by the researcher. Prolonged engagement and probing techniques were used to make sure ideas are soundly reflected. Each FGD lasted for 90 minutes and involved seven to ten participants. Throughout the FGD, the researcher greeted the participant, presented himself and obtained verbal consent for participation. The initial question was planned at the starting of the focus group to discover participants' thoughts and viewpoints. The researcher then gave a short overview to the goal of the study, after exploring the idea for the participant, many short questions were asked, and after each question waiting time giving to make sure that all participants involved their idea about the question. The researcher with the help of one person a note-taker collected the data through open-ended (semi-structured) questions. Short notes were taken through the interviews and were recorded to allow further capturing of information after each focus group was done, quick data, notes, called the researcher’s report, and were prepared for the result of meeting understanding, participant expression, gesture, and tone.

In-depth interviews with five key informants from MOH and medical schools were done. Each interview lasts around 45 mints.

## 3.10 Scientific rigor

### 3.10.1 Quantitative part (questionnaire)

**Face and content validity**

The validity of a study tool means that the level to which a tool measures what it is assumed to be measured. The face validity means whether the tool looks as though it is measuring the suitable form (Polit & Beck, 2010). The face validity assisted the researchers to reach the complement of readability and clarity of the tool, while the content validity concerns the degree to which a tool has a suitable sample of items for the structure being measured. An instrument content validity is essentially based on judgment (Polit & Beck, 2010). The questionnaire was presented to an expert panel with experience and knowledge in this field who give ideas and opinions about the suitability of the questionnaire (Annex 12).

The experts expressed their ideas and advice about the transparency, simplicity, completeness of domains and statements on the questionnaire, therefore the researcher did some changes according to the experts' suggestions. The questionnaire was formulated in order to ensure face validity, including attractive layout and rational sequences of questions and clarity of instructions. Then converting the questionnaire into a web-based format using Google drive.

In addition, a pilot study was done before the actual data collection to assess the participant's replies to the questionnaire and how they understand it. This assured and improved the validity of the questionnaire, especially after changing it to be clearer and more understandable.

To ensure the relevancy of the tool the semi-structured questionnaire of the FGDs was subjected to peer review and the supervisor was consulted.

**Table (3.1):** Validity of the instrument

| Domains | Correlation | Sig. |
|---|---|---|
| The role of the General Directorate of Human Resources Development in the training. | 0.783 | < 0.001 |
| The design of the MI program. | 0.881 | < 0.001 |
| The content of the MI program. | 0.896 | < 0.001 |
| The environment of the MI program. | 0.793 | < 0.001 |
| The effect of the MI program. | 0.836 | < 0.001 |

**Internal Consistency:**

To test internal validity, the researcher evaluated the correlation between each item and the corresponding field. Tables (3.1) existent the correlation coefficient for each domain and the total of the corresponding field. The p-values (Sig.) are less than 0.05, thus the correlation coefficients of all domains are significant at $\alpha = 0.05$, therefore it can be said that all items of each field are consistent and valid to measure what it was set.

**Reliability of the instrument**

The reliability of an instrument is the degree of uniformity with which it measures the characteristic it's supposed to measure (Heale & Twycross, 2015). The reliability test was performed after the pilot stage and also after the data were completely collected and entered.

The researcher used the Crombach alpha coefficient to discover the reliability for each domain and the total reliability of the scale was (0.961), table 3.2 below presents the reliability test result for all domains.

For qualitative data, an expert was invited to propose a sample and to check the questions. A peer has helped to reanalyze the data and taped records to decrease the effects of the researcher subjectively. Digital taping carried out in one FGDs.

**Table (3.2):** Reliability estimates for domains and the entire scale

| Domains | Cronbach's Alpha | Split-Half Coefficient |
|---|---|---|
| The role of the General Directorate of Human Resources Development in the training. | 0.838 | 0.735 |
| The design of the MI program. | 0.843 | 0.801 |
| The content of the MI program. | 0.869 | 0.749 |
| The environment of the MI program. | 0.835 | 0.797 |
| The effect of the MI program. | 0.927 | 0.861 |
| Overall | 0.961 | 0.867 |

### 3.10.2 Qualitative part

In order to assure the trustworthiness of the qualitative part of this study the following steps were done; the first step, a peer check was done through health experts to review the FGD questions to confirm that they cover all the needed dimensions. Then, a member check was made to assure the accuracy and clarity of the records during the FGD. The prolonged engagement was done as the researcher tried to probe for answers and cover all the interview dimensions appropriately. In addition, recording the interviews would improve tracking up facts and re-check the accuracy of the transcripts. Finally, all the records and recordings were kept for tracking the information with others at any time (Audit trail).

## 3.11 Data entry and analysis

### 3.11.1 Quantitative part

Data entry model has been designed and questionnaires and variables were coded and entered, then data cleaned by using the SPSS program. Later the analysis process was done by using the different tests of the SPSS, central tendency measures were performed, including descriptive frequencies, mean, median, mode, standard deviation (SD) and frequency tables for the quantitative variables and the percentages were found out for the qualitative variables.

The researcher used inferential analysis to test the statistical significance of differences; an independent t-test was used to mean scores of the independent variable with two categories such as gender. One-way Analysis of Variance (ANOVA) test was used to compare the mean scores of the independent variable with more than two options such as governorates.

The P-value equal to or less than 0.05 was considered statistically significant, with a confidence interval of 95%.

The Statistical Package for Social Sciences version (SPSS) program, version 23 was used for data entry and analysis.

### 3.11.2 Qualitative part

Debriefing reports for each interview and FGD were made immediately after the end of each one. Related qualitative data and reflections on initial results were obtained Transcription was done to every interview, and then an open coding thematic analysis technique was used to examine the records of the in-depth interviews. The researcher achieved the main results from the records of the interviews. Then, the classification of related ideas and comparison and a combination between the quantitative and the qualitative results were done to generate rich items for discussion.

## 3.12 Limitations of the study

- There are identified limitations in the study design used in this research; the most important among them is being snapshotted measurement that indicates the subjective status of participants which may be influenced by transient exposure to sudden effects or emotional status. However, the variety of participants and their fairly large number may decrease this limitation.
- Qualitative approaches frequently include small samples and personal opinion and could skew the sample to participants who find it easier to talk about the subject.
- Taking appointments from key informants for meetings took sometimes a long time due to their busy schedules.
- The online questionnaires have some limitations that could be occurred in many studies such as; inattention to fell in the questionnaires and delayed in the response.

# Chapter 4

## Results and Discussion

### 4.1 Introduction

This chapter pointed out the results and discussion. The statistical test of data included a descriptive analysis that presents the general characteristic of participants and the perception of the study sample towards the questions. The researcher used statistical test frequencies (%) and used an independent t-test and one-way ANOVA, and used Excels to demonstrate the graph.

### 4.2 Descriptive statistics

#### 4.2.1 Demographic characteristics of the respondents

In this section, the researcher will discuss the main finding of the demographic characteristics of the respondents which include (age, gender, marital status, residency, Are there another physicians in family members, refugee status)

Figure 4.1 illustrates that the highest percentage of age groups among the study population was 25 years (30.9%) followed by 26 years (26%), Above 26 years (22.8%) and lowest groups were under 25 years (20.4%). In brief, the average mean age of trainees was 25.7 years. The age was varied because the graduate finished the medical school at the age of 24 years followed by one year of internship and in our study; we take who finish the internship in the last two years. The result of our study age group parallels the results of Scicluna et al., (2014). In another study conducted in the UK, the mean age of the intern's doctors was similar to our results was 26.26 (Susan, Kellett, & Leinster, 2015). Also, another study conducted in Iran studied medical students' perceptions regarding the quality of their medical education and they found 81% of their study population were between 25 to 27 years old (Jalili, Mirzazadeh, & Azarpira, 2008). These results are similar to our results. Table (4.1) shows the distribution of general characteristics among the study population.

**Table (4.1):** Distribution of study respondents by demographic data (characteristics)

| **Variable** | **N** | **%** |
|---|---|---|
| **Age** | | |
| Under 25 Years | 58 | 20.4 |
| 25 years | 88 | 30.8 |
| 26 years | 74 | 26.0 |
| Above 26 Years | 65 | 22.8 |
| Mean= 25.71, MD = 25.00, Std= 1.9 | | |
| **Gender** | | |
| Male | 152 | 53.3 |
| Female | 133 | 46.7 |
| **Marital Status** | | |
| Single | 186 | 65.3 |
| Married | 99 | 34.7 |
| **Governorates** | | |
| North | 54 | 18.9 |
| Gaza | 132 | 46.3 |
| Middle zone | 35 | 12.3 |
| Khan-Younis | 38 | 13.3 |
| Rafah | 26 | 9.1 |
| **Are there another physician in family members** | | |
| No | 168 | 58.9 |
| Yes | 117 | 41.1 |
| If yes there are | | |
| Father | 41 | 35.0 |
| Mother | 4 | 3.4 |
| Brother | 40 | 34.2 |
| Sister | 32 | 27.4 |
| **Refuge or not** | | |
| No | 80 | 28.1 |
| Yes | 205 | 71.9 |
| **Total** | **285** | **100.0** |

**N:** number of subjects; **SD:** standard deviation & **MD:** median

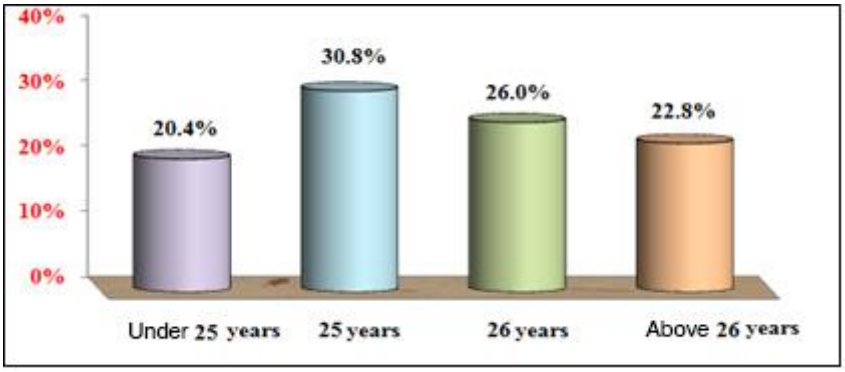


**Figure (4.1):** Distribution of the study participants according to their age

Regarding the distribution of the participants according to their gender, the results showed that more than half of the study participants were male (53.3%) while 46.7% of them were female (Figure 4.2). These findings to some extent were consistent with the PCBS recent report which reveals that the university attendants, 53.4% were females compared to 46.5% of males (MOH, 2018). Also, these results agree with Ziaee et al. (2004) study that showed male higher than female among medical students', the percentage of our result agrees with other surveys of medical students' perceptions regarding the quality of their medical education upon graduation. Their results showed that more than half of the participants were male (55%) and 45% of them were female (Jalili et al., 2008). Also, Mofolo & Botes (2016) showed that an equal number of males and females among their study population.

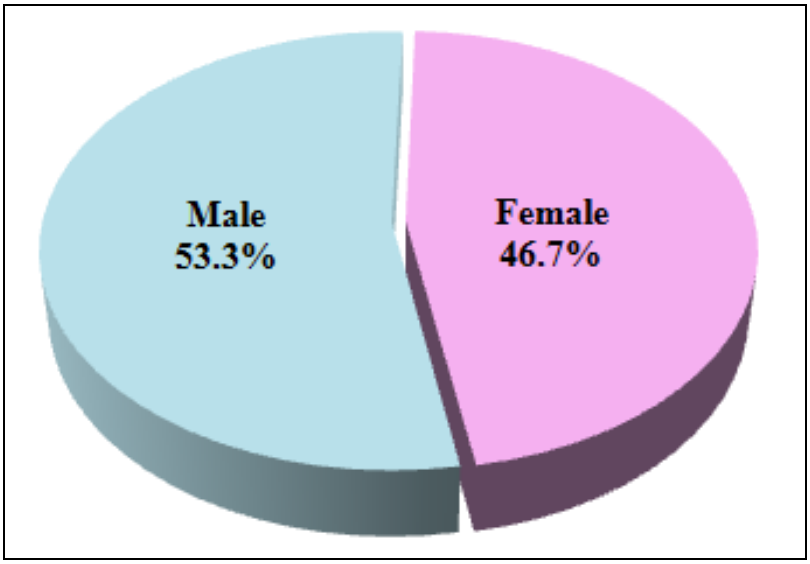


**Figure (4.2):** Distribution of the study participants according to their gender

The marital status of the study participants revealed that two-third of our population (65.3%) were not married in the time of data collection. This could be explained by the fact that all of the medical graduates start the internship immediately after graduation from medical school then search for a job and postgraduate studies become the main priority after they finish the internship program. Our result agrees with Mofolo & Botes, (2016) in their result illustrated the factors that could influence the final-year medical interns' experiences in South African family medicines, and they showed in this study regarding general characteristics that nearly similar 61% were unmarried. also, Ziaee et. al., (2004) found more than half of them were not married (66%) while the rest were married (34%).

Figure 4.3 summarizes the percentages of participants according to their residence. Nearly half (46.3%) of participants were residing in Gaza, 9.1% were residing in Rafah. These percentages agree with the percentages of populations among governorates (PCBS, 2018b).

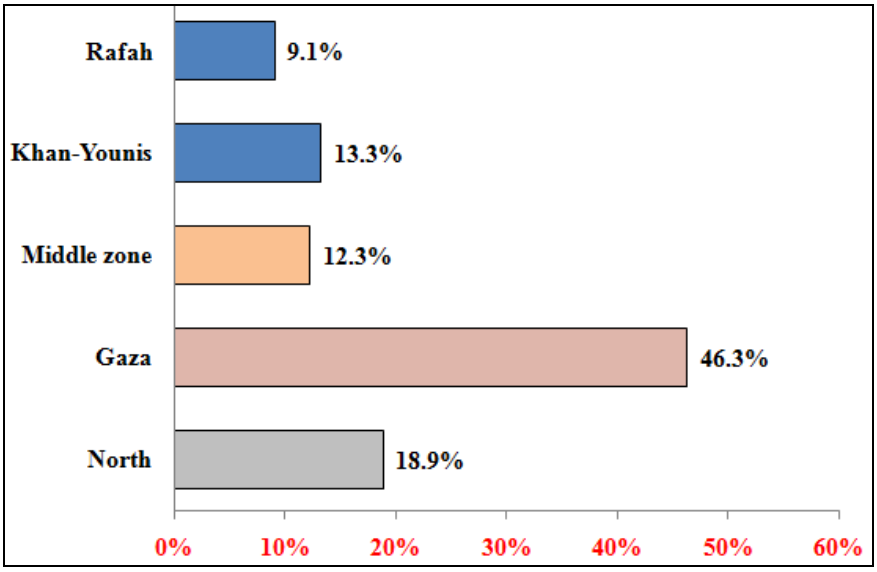


**Figure (4.3):** Distribution of the study participants according to their residence

On the other hand, 41.1% of the study participants there are other physicians in the family members. The results show that the majority of the participant the father is a physician (35%), followed by the brother as physician 34.2% while 27.4% and 3.4% were sisters, mothers, respectively. Regarding refugee statues, more than two-thirds of the study participants were refugees (71.9%) while 28.1% of them were non-refugees. Clearly, this distribution reflects the demographic diversity of the Gaza strip population (PCBS, 2018b).

### 4.2.2 Educational qualifications for the respondents

In this aspect, the researcher will discuss the main finding of the educational qualifications of the respondents which include (year of high school graduation, high school weighted average, high education degree, bachelor degree weighted average year of university graduation, place of medical degree graduation).

**Table (4.2):** Distribution of study respondents according to their education

| **Items** | **Nu** | **%** |
|---|---|---|
| **Year of high school graduation** | | |
| 2009 and before | 47 | 16.5 |
| 2010 | 76 | 26.7 |
| 2011 | 90 | 31.6 |
| 2012 | 72 | 25.3 |
| **High school weighted average (%)** | | |
| Less than 90% | 37 | 14.3 |
| 90 – 95% | 45 | 17.4 |
| More than 95% | 176 | 68.3 |
| Mean= 93.95, MD = 97.00, Std= 8.334 | | |
| **High Education degree** | | |
| Bachelor | 281 | 98.6 |
| Master | 4 | 1.4 |
| **Bachelor degree weighted average (%)** | | |
| 75 % and less | 57 | 20.0 |
| 76 – 80% | 75 | 26.3 |
| 81- 85% | 90 | 31.6 |
| More than 85% | 63 | 22.1 |
| Mean= (80.94, MD = 81.00, Std= 5.989 | | |
| **Year of University graduation** | | |
| 2015 and before | 21 | 7.4 |
| 2016 | 80 | 28.1 |
| 2017 | 92 | 32.3 |
| 2018 | 92 | 32.3 |
| **Place of medical degree Graduation** | | |
| Palestine | 189 | 66.3 |
| Arab countries | 83 | 29.1 |
| Foreign Countries | 13 | 4.6 |

**N:** number of subjects; **SD:** standard deviation & **MD:** median

Table (4.2) shows the distribution of the study participants according to their education. The results illustrate that the highest percentage of high school graduation was in 2011 (31.6%) and the lowest was in 2009 (16.5%) (see table 4.2).

Regarding the high school, the weighted average among the study participants (the mean) average was 94.0. According to the high school weighted average the majority group of a high school weighted average was more than 95%, while17.4% and 14.3% of the respondents have high school average from 90-95 and less than 90 respectively. The results showed that the average of high school was elevated to enrolled for study in medical school in Palestine and other countries because of the regulation of the ministry of high education (MOHE), in acceptance of medical students (MOHE, 2019).

Regarding high education degree, the majority of participants had a Bachelor's degree (98.6%) while only 1.4 of them had a master's degree. The average (SD) of Bachelor degree weighted average among participants was 81.0 (± 6.0) and the highest group of the study participants has range score from 81 to 85 (31.6%) while the lowest 75 or less (20%). The average bachelor score among participants was more than 80%which indicated that selection criteria among medical schools were applied according to the ministry of High Education regulations in acceptance high score of high school graduates. The percentage of participants according to their year of university graduation illustrated that the highest group of the study participants were in 2017 & 2018 which have the same percentage (32.3%) and the lowest group were in 2015 or before (7.4%). The majority of participants graduated from Palestine 66.3% compared to 29.1% of them were graduated from Arab countries and only 4.6% from other countries. This could be attributed to the establishment of a local medical school in 1999 Al-Azhar University in Gaza enrolled its first medical students. In 2006, a second medical school opened at the Islamic University of Gaza, which lead to decline in the number of medical graduates from Arab and foreign countries (Kerr Winter et al., 2014).

### 4.2.3 The role of the General Directorate of Human Resource Development (GDHRD) in the training program

This section will discuss the finding of the first domain in the questionnaire regarding the role of the (GDHRD) in the training.

**Table (4.3):** Total mean respondents about the role of GDHRD regarding the training process

| N | Items | Disagree | | Neutral | | Agree | | Mean | WM |
|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | | |
| 1 | Registration flow for the internship program is clear and easy. | 14 | 4.9 | 26 | 9.1 | 245 | 86.0 | 1.81 | 90.50 |
| 2 | Administrative procedures of the internship program are carried out within a clear step. | 35 | 12.3 | 58 | 20.3 | 192 | 67.4 | 1.55 | 77.50 |
| 3 | An explanation of the registration steps provided for the internship program. | 34 | 11.9 | 51 | 17.9 | 200 | 70.2 | 1.58 | 79.00 |
| 4 | GDHRD distribute the guide booklet to the trainees of the internship program. | 132 | 46.3 | 74 | 26.0 | 79 | 27.7 | 0.81 | 40.50 |
| 5 | GDHRD provide sufficient information about the objectives and procedures of the internship program before starting the training. | 90 | 31.6 | 95 | 33.3 | 100 | 35.1 | 1.04 | 52.00 |
| 6 | The trainee identifies the rights and duties clearly before the starting of the training. | 110 | 38.6 | 88 | 30.9 | 87 | 30.5 | 0.92 | 46.00 |
| 7 | GDHRD ensure that all trainees have vaccinated for hepatitis before the starting of the training. | 131 | 46.0 | 48 | 16.8 | 106 | 37.2 | 0.91 | 45.50 |
| 8 | GDHRD follows up the training centers regularly to check on the training process | 100 | 35.1 | 91 | 31.9 | 94 | 33.0 | 0.98 | 49.00 |
| 9 | The field supervision by the GDHRD of the trainees in the training centers is appropriate and sufficient. | 122 | 42.8 | 93 | 32.6 | 70 | 24.6 | 0.82 | 41.00 |
| 10 | The evaluation tools in a various department takes into account all aspects and skills in each department. | 108 | 37.9 | 71 | 24.9 | 106 | 37.2 | 0.99 | 49.50 |
| 11 | The evaluation tools based on a fair scientific basis among all trainees. | 102 | 35.8 | 90 | 31.6 | 93 | 32.6 | 0.97 | 48.50 |
| 12 | GDHRD follows all trainees' assessments at the end of each training department. | 58 | 20.4 | 76 | 26.6 | 151 | 53.0 | 1.33 | 66.50 |
| 13 | GDHRD provides scientific lectures for trainees to strengthen the practical aspects. | 28 | 9.8 | 47 | 16.5 | 210 | 73.7 | 1.64 | 82.00 |
| 14 | GDHRD selects trainers carefully according to specialization. | 59 | 20.7 | 91 | 31.9 | 135 | 47.4 | 1.27 | 63.50 |
| 15 | GDHRD organizes training and refreshing courses during the training period. | 39 | 13.7 | 57 | 20.0 | 189 | 66.3 | 1.53 | 76.50 |
| 16 | The refreshing courses provided by GDHRD are not sufficient. | 46 | 16.1 | 60 | 21.1 | 179 | 62.8 | 1.47 | 73.50 |
| 17 | The procedures for obtaining the certificate of completion of the training period are smooth and organized. | 46 | 16.1 | 105 | 36.9 | 134 | 47.0 | 1.31 | 65.50 |
| | Mean= 58.77, MD = 58.82, SD= 20.42 | | | | | | | | |

**N**: number of subjects; WM: weighted Mean; SD: standard deviation & MD: media

Table 4.3 shows that the total mean score for topic perception about the role of GDHRD in training was 58.77%. The highest score results that interns have agreed upon is that "Registration *flow for the Internship program is clear and easy*" with weighted mean 91%, followed by the statement that "*GDHRD provides scientific lectures for trainees to strengthen the practical aspects*" with weighted mean 82%.

Our results are congruent with the study D'Abate et al. (2009), which concluded that the organization's satisfaction has a positive association with internship satisfaction. Another study found that improvements in the preparedness of the UK medical school graduates were because of the increased support for intern doctors at the workplace (Cave, Woolf, Jones, & Dacre, 2009).

Furthermore, our result is lower than Xia et al. (2019) who studied the impact of the new MI management system and they found significant improvement regarding the new management system. However, their results pointed out that most teachers and administrators thought the new system was very helpful for improving teaching quality and implementing management (96% for teacher & 93% for administrators). More than 90% of the study population reported that they have a high satisfaction level of the new management system.

The results of our qualitative study of both key informants interviews and FGD support the previously mentioned result, they emphasized on the important role of the GDHR in administrative procedures and providing scientific lecture, one of the respondents said *"The role of GDHRD was good especially the administrative procedures and computerized registration process was appropriate arranged and made the registration of rotations easy"* Another participant added that *"Presence of regular lectures is positive but its content is inappropriate, we do not need theoretical lectures Re-study of the university, we need lectures on approaches, drugs use, and practical things, not theoretical lectures."* Another mentioned that *"I do not mention any weakness but GDHRD needs marketing for their role."* Other participants highlighted the need to *"Increase the number of training courses and focus on what is important to the doctor." "*Another participant disagrees added, *"There is no system but depends on intern doctor personality and relationships."* Another participant added, *"If there is a strong system that will follow if we start on the wrong way, we will continue to make the same mistake."*

On the other hand, the lowest score statement agreed by interns was that "*GDHRD distribute the guide booklet to the trainees of the Internship program*" with weighted mean 40.50%, followed by the statement stating that" The field supervision by the GDHRD of the trainees in training centers is appropriate and sufficient" with weighted mean 41%. Followed by the statement stating that "*The evaluation tools shall be based on a fair scientific basis among all trainees*" with a weighted mean 48.50 %.

In Bangladesh, Hossin et al., (2017) found that intern doctors were satisfied by the training program but they have some problems regarding organization roles such as supervision, logbook, duration of training rotations, these results to some extent agree with our research.

Also claim that, having a supportive supervisor who acts as a mentor also strongly influenced internship satisfaction (D'Abate et al., 2009).

Additionally, our results agree with another study from Bangladesh which showed proper assessment plays a vital role in ensuring the strength and discipline. They found that there is a major shortage in the assessment of the interns. The majority of the interns and a significant portion of their teachers illustrated that there is no assessment present after completion of the main rotation (Noman et al., 2017).

The result of our qualitative study illustrated the negative side of the role of GDHRD is the distribute of the guide booklet to the trainees of the internship program to be able to understand their rights and duties. And they are not satisfied with the field supervision by the GDHRD and the evaluation process as revealed by FGD and KII. One of the respondents said that "*the guide should be distributed before starting training to inform us of our rights and duties."* With regard to evaluation process after each rotation, Another participant mentioned that *"There is no justice in the evaluation process in the sense that there are those who do not adhere to the attendance and take an evaluation like me, who is committed to the time and the shifts this thing bothers me."* Another participant added that *"taking a score of 60 like 90 degrees makes it no difference with the trainee."* Other participants explained that *"There is a need for increased field supervision and follow-up by management."* Another participant added, *"Due to lack of incentives the supervisor does not care about the training process."*

The KII revealed that *"There is a need to increase and enhance the cooperation with training centers"* and *"The absence of a system of reward and punishment and the exemption graduated from a local university from license exam led to a clear weakness."* moreover *"Evaluation should be fair, not on the impressionistic side, which is the weakest type of assessment."* And finally, *"Financial allocations to the intern doctors are weak and are not acted on regularly." graduated from a local university are exempted from that exam.*

Another KII said that "*the follow-up process in the training centers from the GDHRD to be regular and make practical activity in the GDHR focuses on skills that the intern didn't learn in the medical schools."*

Other KII explained that *"The guide booklet needs to be distributed as hardcopy rather than a soft copy to be more accessible."*

Another KII explained that "*The result didn't surprise him because the GDHRD suffering from a shortage of employment for a long period so the focus was on the daily routine rather than other aspects of the role of GDHRD. Such as the field of supervision. Additionally, the guide booklet which is uploaded in the computerized registration system but unfortunately, the intern did not follow or even read it*."

Another KII explained that "*Training is carried out within the various centers and departments in the training centers. And the GDHRD has to assure that the proper training process is carried out or not, Although the organized training centers have a good training process and vice versa, the most important thing is that GDHRD works to ensure that all the training centers are well organized and the training process is satisfactory*."

Another KII explained that *"As regards the shortcomings shown by the results as well as mentioned by the interns doctors with regard to the role of GDHRD was the field supervision and evaluation process and the orientation from the beginning of the internship program which is actually one of the most important topics considered by the administration as well."*

And added more *"but the development of the internship program went through several stages., In the previous stage, lectures are held for the intern doctors for a full year and it was mandatory to control the quality of the training process."*

Then the KII Explained that *"However, this trend has changed because of the nature of the current graduates, who are the top of high school graduates with high grades higher than 96%. They are well equipped with theoretical knowledge. But the aspect of training and practical application is what is important to them. So, the change of direction to focus on acquiring practical skills and experience besides knowledge, the lectures have been canceled and replaced by something practical. This actually means that the intern doctors have to be full-time in training centers, attend the morning meeting, make the round on cases, follow-up the cases, fill the patient files and this is the daily routine of the intern doctor."*

Therefore, the researcher recommended that the GDHRD should do more efforts towards orientation program, distribution of MI guide booklet, continuous monitoring, follow-up, proper assessment with a variety of assessment techniques, incentive to the supervisors, monthly salary for the interns' doctors and revaluation of the MI program and its effect on interns' performance.

### 4.2.4 The design of the medical internship program

This section will discuss the findings of the second domain regarding the design of the MI training program and its appropriateness.

**Table (4.4):** Total mean respondents about the design of the medical internship program

| N | Items | Disagree | | Neutral | | Agree | | Mean | WM |
|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | | |
| 1 | Do written and clear goals and objectives exist for the Internship program | 73 | 25.6 | 87 | 30.5 | 125 | 43.9 | 1.18 | 59.0 |
| 2 | There are no realistic objectives for the Internship program | 111 | 38.9 | 90 | 31.6 | 84 | 29.5 | 0.91 | 45.50 |
| 3 | Objectives of the Internship program were explained by GDHRD | 81 | 28.4 | 94 | 33 | 110 | 38.6 | 1.1 | 55.0 |
| 4 | Agree with the objectives of the Internship program. | 60 | 21.1 | 103 | 36.1 | 122 | 42.8 | 1.22 | 61.0 |
| 5 | The trainee receives practical sessions in the training place systematically | 88 | 30.9 | 99 | 34.7 | 98 | 34.4 | 1.04 | 52.0 |
| 6 | The effectiveness of training depends on the trainee's efforts more than the system imposed on him by GDHRD | 15 | 5.3 | 40 | 14 | 230 | 80.7 | 1.75 | 87.50 |
| 7 | The internship program encourages trainees to review their scientific information which they received during their university studies | 63 | 22.1 | 60 | 21.1 | 162 | 56.8 | 1.35 | 67.50 |
| 8 | The trainee is allowed to participate in giving scientific lectures and practical activities in the training department | 33 | 11.6 | 42 | 14.7 | 210 | 73.7 | 1.62 | 81.0 |
| 9 | The internship program shall take into account the non-technical aspects (legal, ethical, administrative, which is necessary for the physician's work, etc.) | 71 | 24.9 | 81 | 28.4 | 133 | 46.7 | 1.22 | 61.0 |
| 10 | The internship program consists of basic courses for the trainees such as basic life support (BLS) | 74 | 26 | 48 | 16.8 | 163 | 57.2 | 1.31 | 65.50 |
| 11 | The design of the internship program allows exchanging of experience and skills with the medical team | 36 | 12.6 | 58 | 20.4 | 191 | 67 | 1.54 | 77.0 |
| 12 | Internship program supports variety in training in various medical disciplines | 19 | 6.7 | 41 | 14.4 | 225 | 78.9 | 1.72 | 86.0 |
| 13 | The internship program achieves the training needs of the trainees | 74 | 26 | 99 | 34.7 | 112 | 39.3 | 1.13 | 56.50 |
| | Mean= 66.48, MD = 69.23, SD= 22.44 | | | | | | | | |

**N**: number of subjects; WM: weighted Mean; SD: standard deviation & MD: media

Table (4.4) illustrates that the total mean score for topic perception about the program designing of training was 66.48%. According to the results, The highest score results that interns have agreed upon is that " *The effectiveness of the training depends on the trainee's*

*efforts more than the system imposed on them by GDHRD*" with weighted mean 87.50% and followed by statement stating that " *Internship program supports variety in training in various medical disciplines*" with weighted mean 86.0%.

Hannon (2000) Found bad formal training during the intern year. Also, he illustrated the intern skills and characteristics improved during the intern as a result of work experience rather than a well-designed program. Therefore, graduates need to be prepared for clinical practice and well-designed intern programs are required to balance service work with education and training so that practical experience does not result in confidence without competence.

Another study reported that the results of investigating the program of the medical students' clinical education in internship courses concerning internal medicine, surgery and maternity wards were undesirable with emphasizing on lack of a lesson plan for the course (Emami et al., 2010). The results of the present study to some extent consistent with those of the mentioned research.

In the FGD one of the participants said *"I used to ask for practice and become able to do some minor operations on my own, and this depends on your personality and your relationships with the trainers and seniors, there is no uniform system. This depends on the supervisor in the place where there is a variation from one rotation to another and from a training center to another."* Another participant mentioned that "*If you do not seek and look for training no one will concern about you."* إن ما دورت عحالك ما حد بيسأل عليك

One of KII said, *"A large part of the internship year is self-motivated by the trainee and he must look for the benefit."*

With regarding the design of the medical internship program, one of KII said, *"There are constant things all over the world that the minimum of four core specialties is not less than two months and one- or two-months optional elective to the doctor according to the field of preference in the future."*

and he added that "*Therefore the space for change in just a month or two, there were changes where the focus was on psychiatry, which was neglected and suffering from stigma and this is compatible with the global trend in this regard, and also anesthesia and care, especially that we are in a country with usual state of emergency and this speciality has great pressure. There is a lack of willingness and reluctance of doctors to join this specialization for lack of financial return, the goal of change to give interns an opportunity to see these specialists."*

While the lowest score statement stating that "*The trainee receives practical sessions in the training place systematically"* with weighted mean 52.0%, followed by a statement stating that "Objectives *of the Internship program were explained by GDHRD"* with weighted mean 55.0%.

Jalili et al., (2008) Found that Around two-thirds of the respondents reported that they have not been sufficient clinical skills in preparation courses for their future clinical works. Only one-third of the respondents felt that they had acquired adequate skills in starting the residency training program. Furthermore, Ziaee et. al., (2004) illustrated that the curriculum of rotations & design of the program had a significant relation with good satisfaction among intern doctors.

Also, another study showed that a well- designed program leads to positive attitudes toward practical training (De Cates et al., 2019). Moreover significant improvement in students' perceptions of their preparedness for hospital practice achieved by program design (Scicluna et al., 2014). Additionally, curriculum design has an influence on students' knowledge acquisition and a pre-internship preparatory training program is likely to have a positive impact on students' progress. (Fernandes et al., 2018). Additionally, Markakis conclude that educators and role models must closely examine and integrate the methods for delivering both the content and the conduct of educational programs designed to promote values of professionalism and humanism (Markakis, Beckman, Suchman, & Frankel, 2000).

The FGD revealed that One of the participants explained that *"We need a list of skills for each rotation which includes the tasks of the intern doctors only (basic skills), which must be done during the period of training to be an effective member and not just a number! , and also, assigning a number of doctors who are ready to train and develop the skills of the intern doctors in each department, to pay attention to the intern doctors' skills such as Intravenous lines, intramuscular injections, drugs preparation ... et."* Other participants explained that *"There is no (checklist) system for the doctor to complete before he finishes the MI program and there are not enough practical courses."*

Another intern medical doctor stated that *"a lot of work duties that asked to do from intern doctors that are not related to the training program and that decrease the chance for him to learn and acquired more basic skills."* Another participant added, *"There are no clear goals for each course and the trainee does not know what is actually necessary to learn*

*and acquire during the period, there is nothing organized at the training center to be given and taught to each trainee, but depends on the personal effort of the trainee."*

Another intern medical doctor stated that *"There is a need for a mechanism to follow up, monitor and confirm the trainee's achievement of the required skills and a clear practical training plan."*

Another participant added, *"I think the program design is not good especially the minor courses."* Other participants explained that" *The design of the internship program should emphasis on learning and practicing basic skills and focusing on common diseases."*

Another participant mentioned that *"Increase the number of training courses for doctors such as the BLS / ACLS / ATLS course."*

And One of KII said that *"It is better to have an elective course alongside compulsory courses"* another KII mentioned that *"I can't imagen a design of the internship program that didn't include basic training courses like BLS, PTC, especially in our emergency context."*

And other KII added that *"The design of the internship program applied in Gaza is a one-year system. I believe that general medicine and surgery are the basis of medicine. I think if the training is limited to two or three rotations instead of going through many rotations that it is not interesting for them, the benefit is greater, for example (General Internal Medicine, Surgery and pediatric) intern who does not want to specialize in obstetrics and gynecology does not have to be trained. We do not want a general practitioner we supposed to seek specialization."* One of KII suggests that *"I prefer the intern doctor to work for a year in primary care to help him apply for the doctor's work in a comprehensive sense."*

As seen from the opinion of many interns' doctors and KII, the researcher recommends that there is a need to reevaluate the MI program with clear curriculum design and more applicable courses that focus on the acquired clinical skills rather than the theoretical skills.

### 4.2.5 The content of the medical internship program

This section will discuss the findings of the third domain regarding the content of the MI training program which includes the basic rotations and the refreshment courses.

**Table (4.5):** Total mean respondents about the content of the medical internship program

| N | Items | Disagree | | Neutral | | Agree | | Mean | WM |
|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | Nu | % | | |
| 1 | The content of the internship program (skills sheet) was clear | 62 | 21.8 | 88 | 30.9 | 135 | 47.4 | 1.26 | 63.0 |
| 2 | The internship program contains a list of basic skills in internal medicine | 52 | 18.2 | 68 | 23.9 | 165 | 57.9 | 1.40 | 70.0 |
| 3 | The internship program contains a list of basic skills in general surgery | 63 | 22.1 | 76 | 26.7 | 146 | 51.2 | 1.29 | 64.5 |
| 4 | The internship program contains a list of basic skills in obstetrics and gynecology | 54 | 18.9 | 72 | 25.3 | 159 | 55.8 | 1.37 | 68.5 |
| 5 | The internship program contains a list of basic skills in pediatrics | 44 | 15.4 | 67 | 23.5 | 174 | 61.1 | 1.46 | 73.0 |
| 6 | The internship program contains a list of basic skills in the primary health care | 48 | 16.8 | 84 | 29.5 | 153 | 53.7 | 1.37 | 68.5 |
| 7 | The internship program gave me the opportunity to see enough cases in each rotation | 28 | 9.8 | 48 | 16.8 | 209 | 73.3 | 1.64 | 82.0 |
| 8 | There is enough variety in the cases to train | 36 | 12.6 | 52 | 18.2 | 197 | 69.1 | 1.56 | 78.0 |
| 9 | Training on dealing with common cases is provided well | 42 | 14.7 | 54 | 18.9 | 189 | 66.3 | 1.52 | 76.0 |
| 10 | Trainee can be participating in surgical operations | 27 | 9.5 | 45 | 15.8 | 213 | 74.7 | 1.65 | 82.5 |
| 11 | The training material can be applicable | 32 | 11.2 | 77 | 27.0 | 176 | 61.8 | 1.51 | 75.5 |
| 12 | The training content is available at all stages of the program | 73 | 25.6 | 91 | 31.9 | 121 | 42.5 | 1.17 | 58.5 |
| 13 | The trainees are not involved in the discussion of cases and participating in the initial diagnosis with the trainer | 200 | 70.2 | 55 | 19.3 | 30 | 10.5 | 0.40 | 20.0 |
| 14 | The training center provides sufficient opportunity to practice professional skills for the trainee | 51 | 17.9 | 83 | 29.1 | 151 | 53.0 | 1.35 | 67.5 |
| 15 | Duration of the Internship program is not sufficient to obtain the information and skills necessary to practice the profession efficiently | 207 | 72.6 | 34 | 11.9 | 44 | 15.4 | 0.43 | 21.5 |
| 16 | The internship program contains lectures in professional ethics | 77 | 27.0 | 64 | 22.5 | 144 | 50.5 | 1.24 | 62.0 |
| 17 | The internship program contains lectures in the medicolegal aspects | 147 | 51.6 | 74 | 26.0 | 64 | 22.5 | 0.71 | 35.5 |
| 18 | The internship program contains lectures in the interpersonal communication | 140 | 49.1 | 71 | 24.9 | 74 | 26.0 | 0.77 | 38.5 |
| 19 | The internship program includes lectures in team work. | 121 | 42.5 | 73 | 25.6 | 91 | 31.9 | 0.89 | 44.5 |
| 20 | The internship program contains lectures in infection control | 104 | 36.5 | 66 | 23.2 | 115 | 40.4 | 1.04 | 52.0 |
| 21 | The internship program contains lectures in patient safety | 103 | 36.1 | 77 | 27.0 | 105 | 36.8 | 1.01 | 50.5 |
| 22 | The internship program includes lectures in the documentation and medical reporting | 146 | 51.2 | 61 | 21.4 | 78 | 27.4 | 0.76 | 38.0 |
| 23 | The internship program includes lectures in clinical audit and health research | 97 | 34.0 | 64 | 22.5 | 124 | 43.5 | 1.09 | 54.5 |
| 24 | The internship program contains lectures in quality of health service | 133 | 46.7 | 83 | 29.1 | 69 | 24.2 | 0.78 | 39.0 |
| | Mean= 62.46, MD = 64.58, SD= 21.28 | | | | | | | | |

**N**: number of subjects; WM: weighted Mean; SD: standard deviation & MD: media

The total participants mean perception about the contents of the training program summarized in table 4.5. The total mean participants' perception of the contents of the training program topic was 62.46. The highest score results that interns have agreed upon is that "*Trainee can be participating in surgical operations"* with weighted mean 82.50% and followed by a statement stating that "*The Internship program gave me the opportunity to see enough cases in each rotation"* with weighted mean 82.0%

In Saudi Arabia, Swaid et al. (2017) showed that satisfaction with training was more obvious in general surgery (76.1%) & pediatrics (77.5%). The lowest satisfaction was for obstetrics and gynecology rotations (45.1%), however, in general medicine, it was (54.9%). Training in general surgery & pediatrics was ranked as excellent by the majority of the interns in contrast, obstetrics and gynecology, rated it as average. This study concluded that training program quality in view of medical students is variable across the major specialties, and there some problems in the obstetrics and gynecology department for students training. These results to some extent agree with our results.

Another study found that the intern doctors had a positive view towards clinical education in internal wards, 67.04% and 63.42% respectively (Soleymani, Mehri, Farzianpour, & Khatoonabadi, 2012).

Another study from Iran revealed that there was a significant relation between satisfaction with contents such as time of bedside learning and learning of case report diagnosis of which needs a speciality, and epidemic diseases ($P<0.05$) Ziaee et. al. (2004).

The FGD about this topic revealed that the intern doctors are concern more about acquiring more practical skills during the internship period.

One of the participants said that *"The intern doctors do not need extra theoretical knowledge. The intern doctors need practical skills supervised by a direct physician who teaches him how to deal with the patient from the moment hospital admission through his daily follow-up to the discharge from the hospital and giving him appointments to the outpatient clinic."*

And another participant added that *"The intern doctors go through a period of transition, after which he will be an official doctor, face the community by himself, write medicines and dosages by himself without consultation, and will be forced to take responsibility for patients alone. If you consider this, you will really understand what the intern doctor needs during this transition period."*

Another participant mentioned that *"The abundance of extra theoretical knowledge, lectures and the system of indoctrination will not be useful unless the intern doctors are*

*placed in positions that enable him to diagnose and make the therapeutic decision by himself (certainly under direct supervision), without applying this method, the internship program is not different from the bachelor program!!!"*

Another participant mentioned that *"We do not want to repeat what we learned at university."*

Another participant added that *"Increase the number of training courses, especially in emergency medicine."*

Another participant mentioned that *"At the center where I trained, I had a good chance of participating in surgery."*

While Another participant mentioned that "*For me, surgery and gynecology did not benefit from them sufficiently, unlike pediatric and internal medicine."*

And another participant added that" There *is a good opportunity to practice a large number of cases in most departments."*

And another participant added that *"In all departments, I had a role with a good chance of training except in surgery they did not care for female interns, and during emergency rotation, my role is wound suturing only."*

And another participant added that *"There are no skills required for each department, or if they exist, we have not recognized or trained."*

Another medical intern doctor stated that *"There is no supervisor to teach you and there are no clear goals or a list of specific skills for each department, just ordered to do the unimportant things that the doctor does not want to tire himself with."*

Another participant added that *"We do not apply the duties and responsibility of the intern doctor on the ground."*

Another participant added that *"There is no value from minor rotations unless you are interested in this speciality, increasing the duration of emergencies is better."*

Another participant explained that *"I think that generalization in all departments is difficult. There are good utilization and follow-up from some departments, especially pediatric and internal medicine, but surgical courses due to the high pressure of cases and the large numbers of trainees and resident doctors do not have enough opportunities for training."*

While the lowest score statement stating that "*The Internship program contains lectures in the medicolegal aspects*" with weighted mean 35.50%, followed by a statement stating that "*The Internship program includes lectures in the documentation and medical reporting" w*ith weighted mean 38.0%.

In a survey of intern's perceptions of the quality of their internship education by Jalili et al., (2008). The results of this paper reported that most of the respondents felt that basic science courses lacked clinical relevance. They also found about 30% of the responders were generally satisfied with the training they received in the internship program. Respondents illustrated a lot of deficiencies in the content of programs and in their competences. The researchers found numerous activities were rated by respondents as being inadequate: "gerontology education" (88%), "management" (86%), "alternative medicine" and healthcare quality improvement (86%), and "rehabilitation" (83%). Finally, this study illuminates a lot of aspects of the contents of internship programs that need to be addressed in order to prepare physicians effectively and efficiently for clinical practice. These results to some extent agree with our result.

In the UK, another study pointed out that the internship program contents directly straight mitigated some fears among interns due to confidence increased as a result of the training program (Berridge et al., 2007).

Fereshteh et al., (2016) illustrated that Concerning special educations such as medical and social ethics 49.2% and 49.8% of the student were satisfied respectively, they had good opinions about internship time and educational activities (49.8% and 49.8%). 3.32%, 2.98%, 3.38%, and 3.29% were the percent obtained concerning theoretical classes related to practical education, mental skills, communicative skills, and practical skills respectively the students, satisfaction with the quality of educational programs in training and internship courses was 50.2%. These results to some extent agree with our study results.

Another study conducted in Australia illustrated that the majority of interns approved that their clinical skills during the year had met curriculum objectives and some activities within the "Emergencies" and "Skills and Procedures" categories may reasonably occur infrequently, feedback indicated that a proportion of interns (approximately 30–40%) did not consider this level of exposure which was sufficient to meet curriculum expectations for these categories (Ahern et al., 2017)

Additionally, Only half of the students (51.8%) felt that their education had always or sometimes helped them deal with such professionally-challenging situations. (Al-Abdulrazzaq et al., 2014).

Additional study make a review of literature from 2009 to 2014 shows that there is soundly clear evidence (multicenter studies and knowledge measures) that graduates have problems of preparedness around ethical and legal issues, including for complex ethical situations (e.g., caring for dying patients) and understanding mental health law (Monrouxe et al., 2017).

Finally, the lack of a relevant national curriculum makes the internship year a lost opportunity for medical education (Lake & Landau, 2007). These studies agree with our results.

The FGD about this topic revealed that there is a gap in some important topics that are important to be included in the content of the internship program. One of the participants said that *"There is a shortage of new subjects such as patient safety, clinical audit"* Another participant mentioned that *"There is a lack of administrative and legal issues and there is no content applied, I learn from my mistakes."*

Another participant added that *"Work on three important topics for each doctor: basic skills for cardio-pulmonary resuscitation, infection control procedures, scientific research and quality of health services (need more emphasis on these themes)."* Another medical intern doctor stated that *"there is a need to add many training courses (ACLS, ATLS, SPSS, Clinical research, how to write your CV, how to choose your speciailty) in the content of the internship program)."*

While the main point in regard to the content revealed by the KII is to assure that the intern doctors knowing the basic skill needed in every rotation and the importance of including more training courses. One of KII said that *"The intern doctors have to know the list of basic skills required in each discipline from the beginning of the training."* Another KII added that *"More practical training, especially in emergency, approaches, and guidelines, is needed."*

And another KII explained that " *There were attempts, and tend to some extent include training courses such as ACLS, ATLS,…etc., and skills things that depend on the transfer of experiences of the seniors and also other aspects such as medicolegal, ethics, documentation, infection control …etc., in some periods was done as required and other periods for many reasons are stopped or reduce these activities"*

Another KII Added that*" There is a consensus that there are shortages in some important topics such as patient safety, communication, documentation, etc. But many of these topics are acquired in practice and many countries have merged them into their programs not so long ago."*

Another KII Added that *"the intern doctors have to see the patient, evaluate the patent, make a differential diagnosis and therapeutic plan, but it should be under supervision, intern doctors have a role and helps to deal with cases, especially non-critical cases, and always with the supervisor to ensure safety, the main goal of the training process is to contact with the patient directly form first stages ( emergency department) and also under supervision."*

As seen from the opinion of many interns' doctors and KII, we recommend that we need to illustrate the objective and the skill required in each rotation from the beginning of the training, more emphasize in practical skill acquisition and adding special training course in a topic like medicolegal aspect, research, quality improvement …etc.

### 4.2.6 The environment of the medical internship program

This section will discuss the findings of the fourth domain regarding the environment of the MI program and its appropriateness.

**Table (4.6):** Total mean respondent about the environment of the medical internship program (in the training centers)

| N | Items | Disagree | | Neutral | | Agree | | Mean | WM |
|---|---|---|---|---|---|---|---|---|---|
| | | N. | % | N. | % | N. | % | | |
| 1 | There is no administrative follow-up from the training centers for the trainees (attendance and leave - leave - rotation between departments) | 200 | 70.2 | 41 | 14.4 | 44 | 15.4 | 0.45 | 22.50 |
| 2 | The training center management does a technical follow-up of the trainees (the training process – evaluation-distribution of trainee …etc.). | 48 | 16.8 | 64 | 22.5 | 173 | 60.7 | 1.44 | 72.0 |
| 3 | Training center facilitates the application of what the trainee learned | 41 | 14.4 | 82 | 28.8 | 162 | 56.8 | 1.42 | 71.0 |
| 4 | The system of work in the training center is consistent with the training objectives | 47 | 16.5 | 91 | 31.9 | 147 | 51.6 | 1.35 | 67.50 |
| 5 | Lighting in the training areas is sufficient | 36 | 12.6 | 45 | 15.8 | 204 | 71.6 | 1.59 | 79.50 |
| 6 | Ventilation in the training areas is sufficient | 62 | 21.8 | 54 | 18.9 | 169 | 59.3 | 1.38 | 69.0 |
| 7 | Warming is adequate training places | 82 | 28.8 | 67 | 23.5 | 136 | 47.7 | 1.19 | 59.50 |
| 8 | The training center is well equipped and suitable for training | 73 | 25.6 | 84 | 29.5 | 128 | 44.9 | 1.19 | 59.50 |
| 9 | Training places (department) suit with the number of trainees | 96 | 33.7 | 53 | 18.6 | 136 | 47.7 | 1.14 | 57.0 |
| 10 | There is a suitable place for trainees (for rest - personal things - changing clothes - toilets ... etc.) | 198 | 69.5 | 36 | 12.6 | 51 | 17.9 | 0.48 | 24.0 |
| 11 | A lecture hall for the theoretical lectures prepared by trainees is available | 36 | 12.6 | 36 | 12.6 | 213 | 74.7 | 1.62 | 81.0 |
| 12 | The medical staff respects the trainees | 25 | 8.8 | 68 | 23.9 | 192 | 67.4 | 1.59 | 79.50 |
| 13 | The medical staff cooperates with the trainees | 25 | 8.8 | 75 | 26.3 | 185 | 64.9 | 1.56 | 78.0 |
| 14 | The logistics services (medical supplies required for training) required by the trainees are available in the training department | 102 | 35.8 | 74 | 26.0 | 109 | 38.2 | 1.02 | 51.0 |
| | Mean= 66.17, MD = 67.86, SD= 21.70 | | | | | | | | |

**N**: number of subjects; WM: weighted Mean; SD: standard deviation & MD: media

Table (4.6) shows that the mean of participants mean perception about the environment of the training program was 66.17%. The highest score results that interns have agreed upon is that "*A lecture hall for the theoretical lectures prepared by trainees is available"* with weighted mean 81.00 % and followed by a statement stating that "*The medical staff respects the trainees"* with weighted mean 79.50 %.

Ziaee et. al., (2004) illustrated that there is a statically significant relation was found between the satisfaction of students with class size in bedside ($P<0.05$), and appropriateness of educational environment ($P<0.05$), and overall satisfaction had a significant association with approach to common and epidemic diseases, class size, and the course planning. This result to some extent agrees with our results.

Another study points out that the medical students considered that the efforts of leadership and supervisor must be increased to improve the learning environment (Hannon F, 2000).

On the other hand, other studies illustrated that support and supervision should be made available to junior doctors in a situation where they are dealing with the death of patients and on surgical placements (Brennan et al., 2010).

D'Abate et al. (2009) showed that general characteristics of work environment characteristics (i.e., learning opportunities, supervisory support, career development opportunities, coworker support, organization satisfaction) were the most important in predictors of internship job satisfaction, they found that good work environment characteristics predict the level of internship satisfaction.

The results by Sein & Tumbo et al. (2012) concluded that the institutions must create conductive training environments for effective training programs in the internship. These studies are rather in agreement with the present one.

Our results agree with Cave et al., (2009), which illustrated that increased support in the workplace leads to ease the transition from student to doctor and improve in their preparedness for starting the real work.

Moreover, good working conditions were the most influential characteristics of choosing a training position. (Cleland, Johnston, Watson, Krucien, & Skåtun, 2016). This result agrees with our results.

Another study shows that the number of interns in every training center, awareness with frequent diseases and the existence of an advanced educational program, were factors affecting the interns' satisfaction (Fereshteh et al., 2016). The mentioned study is in agreement with the present one.

In the FGD regarding this issue, the result revealed that one of the participants said that *"Mutual respect between intern doctors and supervisors changing the way of dealing with the intern doctors who were from a year or less considered a student."*

Another participant mentioned that *"Practical application of knowledge and science in a proper manner and under the supervision of trainers."*

Another participant added that *"The ability to assistance and participation in operations in the general surgery department and the engaging of the intern doctor as a surgical assistant that was a good experience for me."*

Another participant explained that *"Depending on the intern doctors in an emergency after being taught how to deal with the situations gives him self-confidence and provides him with the necessary experience to continue."*

Another medical intern doctor explained that *"Get broad knowledge and basic information in particular subjects and common cases in all disciplines are generally available."*

And in contrast to the previously mentioned other intern doctors have a different point of view about the respect and relation with the medical team in the training centers as its shows, one of the medical intern doctors said that *"Doctors in the department implicitly consider the doctor of interns as a surplus person and unable to provide something valuable to the department except to write files."*

Another participant mentioned that *"Doctors do not consider the intern as part of the medical team in the department and not give him any space of decision or discussion."*

Another participant added that *"When asking about the meals they say you are not from the team!!!"*.

Another participant mentioned that *"Other said the overcrowded of trainee whether they are from internship or board or medical student adversely affected the learning environment" Another explained that "It differs from the training center to other it is more difficult in the big centers because of the large number of the trainee and medical student."*

Other participants explained that *"The intern doctors used to take the load of writing or suturing from the physician (dirty work) or (موصلاتي للحالات)."*

Another participant mentioned that *"Supervisors take care to medical students more than the intern doctors and added more) They are white duck boys and we are black duck boys) (هما أولاد البطه البيضة واحنا أولاد البطة السوده)"*

Another participant added that *"Some supervisors are treated as if they did not see us."*

In this regard, one of the KII said *"However, to some extent, it is true that the training environment is not ideal because of the crowding of trainees, but there is a fundamental difference. The medical student does not have the right to train without the presence of an accompanying trainer, while the intern doctors can do prior round alone on the cases within the department and present their conditions during the main round. Often this is not applied all the time."*

Another KII said that *"The role of the intern doctors and the supervision process by supervisor (mentor) on a daily basis as part of an educational process I think that this part has a gap and need to strengthen, this aspect may be related to incentives and I think this aspect needs to find a solution. In my opinion, the best person who does this (peer learning) is the resident doctors, not the consultants because they are so busy. But the resident doctor in a learning process and can play an important role in the training process for the junior doctors. because they have the enthusiasm and desire to learn."*

Another KII said*, "the absence of incentive for the supervisor makes him focus on the medical student, not on the intern and some of the supervisors also need more training and preparations to be able to train the medical interns' doctors."*

Another KII added that *"Actually, in some centers, there is no much interest in the intern's doctors because of they become busy with the training of medical students because universities pay for training, but the training of the intern's doctors without any intensives and this led to the lack of interest in interns' doctors in some centers."*

Another KII added that *"There is a difference in the hospitals in terms of size and quality of the departments and specializations, and over many years, training in large centers where there are a large number of cases and also trainers, but also, associated with large centers, major problems due to a large number of trainees, university students, and board doctors, and cases more frequently are the most developed but there are small centers and the work system and training process is better."*

Another KII added that *"Not every large center means the best, and not every small or beginner center is the worst, but the ability to control varied because of the Challenges which faces the health sector in general and not the internship programs. In particular, such as wars, political division, economic problems, and the emigration of doctors, this*

*has negatively affected health services and training."* And added, *"On the other hand, the entry of board programs in some centers reflected positively on the training process for the intern's doctors."*

Another KII added that *"In general, when the system is tightened inside the training center, it reflects on everything inside the center, including the training of interns and vice versa."*

One of the KII said *"most of the training centers don't make orientation to the intern doctors at the beginning of the training"*

While the lowest statement stating that " *There is a suitable place for trainees (for rest - personal things - changing clothes - toilets ... etc.)*" with weighted mean 24.0%, followed by statement stating that "*The logistics services (medical supplies required for training) required by the trainees are available in the training department" w*ith weighted mean 51.0%.

In Bangladesh, Hossin et al., (2017) reported that some problems in the environment of internship program such as availability of training aid, lack of supervision as well as feedback, Also, they concluded the need of arranged and strengthening the clinical environment in the hospitals, our results agree with that study.

Additionally, 88.7% of intern doctors found that the look of hospitals and their resting rooms is not suitable, and sometimes there is a shortage of what interns need such as coffee or tea or hot water to have a shower according to an Iranian study (Heidarnia & Yasin, 2013). Our results agree with that study.

Moreover, the education environment of pediatric interns was studied by Naidoo et al., (2017) in South Africa. The results showed that the majority of interns perceived the learning environment as being more positive. And the study highlighted the factors that adversely affect the training environment such as poor support from institutions, increase workloads and the lack of supervision which caused a decrease in the benefit of training. This result to some extent agrees with our results.

On the other hand, another study illustrated that 5% of the interns felt that the facilities and infrastructure at their hospital were completely suitable for an internship program 12% felt that the facilities were completely unsuitable for internship training and 80.1% were uncertain about the facilities (Ross et al., 2018).

Mofolo & Botes (2016), Their study illustrated that insufficient supervision and lack of orientation affected negatively on the intern's experience. Additionally, elevated workload with a lack of resources and insufficient staff are the main push factors.

The results by Sein & Tumbo et al. (2012). they concluded that the institutions must create conductive training environments for effective training in the internship period. These studies are rather in agreement with the present one.

Another study shows that the satisfaction level of interns with the internship rotations in the hospital was not sufficient, they were not satisfied with the number and variety of the patients, medical equipment and welfare facilities, this study is rather inconsistent with our research (Sedaie et al., 2007).

The FGD in this topic illustrated many gaps affecting the environment of training such as there is no suitable place for intern doctors, with regard to the place for the inter doctors for rest or changing clothes on of the participants explained that "*There is no special room for changing clothes and for personal purposes or for praying*."

Another participant said that "*During evening shift there is no suitable place for rest or sleep even the meals aren't provided.*"

Another participant mentioned that *"From the medical side, most of the centers were well prepared and have a diverse and qualified staff."*

Another KII added that*" Says there is no special place for intern for rest or sleep during the evening shift, and unfortunately, the physician could not find a place for rest or sleeping and we(the management) should contact the officials to provide a particular place only for intern doctors in each department and each hospital."*

From the discussion of the result of this domain, it is clear that there are many problems in environment of the MI program, one of the main problems is the absence of a specialized office with facilities in each training facility for the medical intern during the training period which was declared by many intern doctors and was highlighted by some KII.

It also showed clear differences in the views on the suitability of the training environment as some considered it excellent while others consider it to be inappropriate, but the general impression that the training environment is better in small training centers that are less crowded with trainees, and this is confirmed by the literature as mentioned above.

### 4.2.7 Effect of the medical internship program

This section will discuss the findings of the fifth domain regarding there perceived effect of the MI program and its impacts from the participants' point of view such as gaining practical, personal, social experiences.

**Table (4.7)** Total mean respondent about the effect of the medical internship program

| No. | Items | Disagree | | Neutral | | Agree | | Mean | WM |
|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | N | % | | |
| 1 | The objectives of the Internship program mentioned above have been achieved | 61 | 21.4 | 107 | 37.5 | 117 | 41.1 | 1.20 | 60.0 |
| 2 | Gained new practical skills during my training period | 21 | 7.4 | 38 | 13.3 | 226 | 79.3 | 1.72 | 86.0 |
| 3 | Have the ability to participate in making the right decision with patients | 23 | 8.1 | 70 | 24.6 | 192 | 67.4 | 1.59 | 79.5 |
| 4 | The application of the training program reduces the gap between theoretical and practical reality | 15 | 5.3 | 49 | 17.2 | 221 | 77.5 | 1.72 | 86.0 |
| 5 | ability to apply most of the skills gained during the training program | 28 | 9.8 | 60 | 21.1 | 197 | 69.1 | 1.59 | 79.5 |
| 6 | The internship program has given enough confidence in helping my colleagues in the field of work | 16 | 5.6 | 38 | 13.3 | 231 | 81.1 | 1.75 | 87.5 |
| 7 | The internship program help in choosing medical specialty | 62 | 21.8 | 63 | 22.1 | 160 | 56.1 | 1.34 | 67.0 |
| 8 | I found the information that I need for outstanding performance | 60 | 21.1 | 91 | 31.9 | 134 | 47.0 | 1.26 | 63.0 |
| 9 | The internship program distinguished the trainee’s performances. | 43 | 15.1 | 75 | 26.3 | 167 | 58.6 | 1.44 | 72.0 |
| 10 | The internship program increased self-confidence of the trainees. | 26 | 9.1 | 51 | 17.9 | 208 | 73.0 | 1.64 | 82.0 |
| 11 | By joining the internship program, the role of the physician is understood in various health facilities. | 18 | 6.3 | 45 | 15.8 | 222 | 77.9 | 1.72 | 86.0 |
| 12 | More awareness has become acquainted with the health system in the facilities of the Ministry of Health | 11 | 3.9 | 39 | 13.7 | 235 | 82.5 | 1.79 | 89.5 |
| 13 | The internship program has helped develop the trainee's abilities and personal skills | 23 | 8.1 | 55 | 19.3 | 207 | 72.6 | 1.65 | 82.5 |
| 14 | I find it difficult to integrate into the labor market | 134 | 47.0 | 82 | 28.8 | 69 | 24.2 | 0.77 | 38.5 |
| 15 | The internship program allows trainees to familiarize themselves with the work systems of the various health facilities and procedures | 23 | 8.1 | 52 | 18.2 | 210 | 73.7 | 1.66 | 83.0 |
| 16 | The internship program contributes to the ability of the trainee to communicate effectively with colleagues and the public | 27 | 9.5 | 52 | 18.2 | 206 | 72.3 | 1.63 | 81.5 |
| 17 | Ability to work within the team and participate in decision making | 28 | 9.8 | 54 | 18.9 | 203 | 71.2 | 1.61 | 80.5 |
| 18 | The internship program did not add any practical benefit | 224 | 78.6 | 39 | 13.7 | 22 | 7.7 | 0.29 | 14.5 |
| 19 | Ability to withstand work under pressure | 24 | 8.4 | 66 | 23.2 | 195 | 68.4 | 1.60 | 80.0 |
| | Mean= 78.52, MD = 86.84, SD= 21.74 | | | | | | | | |

**N**: number of subjects; WM: weighted Mean; SD: standard deviation & MD: media

Table (4.7) shows that the mean for Total participants' mean perception about the effect of the training program was 78.52%. This means that participants agree about this topic. The highest score results that interns have agreed upon is that "*More awareness has become acquainted with the health system in the facilities of the Ministry of Health"* with weighted mean 89.50% and followed by the statement stating that "*The Internship program has given enough confidence in helping my colleagues in the field of work"* with weighted mean 87.50%

Our results agree with a study that aimed to assess the clinical and professional development that achieved during the internship year in New Zealand, in which interns reported significantly greater competence and performance levels across all domains. The greatest improvement occurred in the independent performance of procedural skills (77%) and clinical tasks (94%) and in the level of clinical responsibility taken at the end of the trainee intern year, 92% of students felt prepared to be a junior doctor (Dare et al., 2009).

These results found by the implementation of the recommendations of the national committee report on the intern year in Ireland, partially agreed with our result which illustrated the experience of interns was positive, with 65% of respondents indicating that they had an "excellent" or "good" (Health service executive, 2018).

While in contrast, another study showed that 91% of interns reported that they were not prepared for all the skills needed as an intern (Hannon F, 2000).

A study in Saudi Arabia finds that more than half of the study sample felt that they were well prepared to start the next step in their career at the end of the internship (50.7%), while 25.4% felt that they were moderately prepared (Swaid et al., 2017). This result to some extent agrees with our results.

On the other side, substantial proportions of trainees lacked confidence in performing emergency resuscitative measures and some routine clinical skills found in a study conducted in Kuwait (Premadasa et al., 2008). This result didn't match our results.

Another study showed that junior medical officers in PGY1 demonstrate a broad range of competence levels for several common, practical, clinical skills, with some performing at an inadequate level. There is no relationship between their self-reported level of confidence and their formally assessed performance as it showed in a study conducted in

Australia (Barnsley et al., 2004). This result didn't match our result Also, the confidence of many PRHOs after their first post in dealing with common emergencies may exceed their clinical experience and ability and this raises concern for clinical standards and patient safety (Clayton et al., 2005).

Also, another study showed that many potential triggers for personal growth offered during the experiences of internship (Levine et al., 2006). Additionally, another effect of the internship is the improvement of communication skills as it shows in our result and in a study conducted in Norway which find that the level of communication skills increased significantly during the period of internship (Levine et al., 2006). These studies are rather in agreement with the present one.

On the other hand, another study highlighted that the training program leads to the development of generic skills needed of working in the 'real world 'skills such as communication, team working and the ability to cope with the responsibility (Levine et al., 2006).

Another study revealed that participants asserted that having responsibility and exposure to real clinical practice were prerequisites for confidence and competence, and that assuming clinical responsibility involved a very steep learning curve (Wall, Bolshaw, & Carolan, 2006) ; (Hesketh et al., 2003).

An additional study showed that participants felt more satisfied regarding internship training, and the transition into an internship was characterized as having both personal and professional components. Overall, the participants felt generally positive about internship and their responses highlight the role of confidence in the development of competence (Draper & Louw, 2012). This study agrees with our results.

Another study titled how prepared are UK medical graduates for practice? A rapid review of the literature 2009–2014 showed that graduates appear prepared for history taking, physical examinations, and some clinical skills, but unprepared for other aspects, including prescribing, clinical reasoning/diagnoses, emergency management, multidisciplinary team working, handover, error/safety incidents, understanding ethical/legal issues and ward environment familiarity (Monrouxe et al., 2017). This study to some extent agrees with our results.

Another study indicated that some purposes of service-learning have positive effects on students' obligation to future civic participation. Analysis reveals that higher levels of obligation to be involved are assessed by students' experiences of social empowerment (Knapp, Fisher, & Levesque-Bristol, 2010). This is an important implication in our system in Gaza.

Additional benefit in internship can be demonstrated in the academic achievement of the intern according to study done in Qatar intended to evaluate the impact of the rotating internship program applied in HMC hospital on the cognitive capacity of the trainees which was found that the mean grades for the interns in their NBME exams were enhanced from 38.4 to 57.2 by the end of the training year (El Tawil et al., 2011). This study agrees with our results.

Although some degree of stress is a usual part of intern doctor's training and may elevate the intern doctor's ability to perform under pressure, it is increasingly recognized that many medical trainees and clinicians experience face harmful levels of distress (West & Shanafelt, 2007).

However, the stress of transition was reduced by the level of clinical experience gained in the undergraduate years as it showed in a study aimed to explore the experiences of junior doctors during their first year of clinical practice (Brennan et al., 2010). Our results are consistent with this study.

The result of our qualitative study of both KII and FGD Support the previously mentioned result, they emphasized on the skills and confidence that they acquired during the internship program.

One of medical intern doctor explained that *'Scientifically benefited a lot, and there was a handover process on the part of the procedures and routine activities applied in the Ministry of Health and also how to cooperate and organization and management in the hospital as a whole and also in the same departments through cooperation and coordination between the head of the department and colleagues in terms of respect and appreciation for everyone in department, and also how to deal with patients and explain cases in a simplified and understandable to parents and relatives."*

Another participant added that *"Identify the health system in the Ministry of Health, the role of doctors and staff in each department were not only scientific but in the aspects of work, laws, and ethics, and the decision-making."*

Another participant added that *"Identify the health system in Gaza and explore the challenges which make obstacles to apply in a proper way."*

Another participant mentioned that *"Increased my knowledge and experience in the hospital protocols, patient assessment, and treatment."*

also, the FGD about this topic revealed that the intern doctors achieve good practical skills, increase self-confidence, communication skills, and teamwork.

One of the participants said that "*Stimulate training in decision-making, Increase intern's confidence, Follow-up cases from the moment of admission until discharge*."

Another participant mentioned that "*Increase of responsibility even with supervision you become responsible as in some department the supervisor allows me to examine the patient under supervision, exit from student life to doctor life*."

One of the participants said that "*increase my confidence in making appropriate medical decisions for different conditions, communicate with patients and colleagues become better and easier."*

Another participant added that *"The best thing is the relation that you gain and know the hospital working system."*

One of the participants said that *"Apply the practical aspect and relate it to what has been learned in theoretical become responsible or exposure to the responsibility of the intern doctor and work under pressure."*

Another participant mentioned that *"The internship year gives you a chance to choose your future career."*

Another participant mentioned that *"Give me a good opportunity for practical training and the transition from theoretical knowledge to practical application, in addition, it helped me to choose my speciality in the future."*

Another participant added that *"I gain good experience in teamwork, communication with patients and medical staff, improve Self-confidence and work under pressure."*

Another participant mentioned that *"The practical side and the skill of dealing with patients. And bridging the gap between the theoretical study side and practical reality."*

Another participant mentioned that *"the internship program helps me to develop my scientific research skills."*

One of KII said that *"the intern doctors must be a part of the medical team and not a guest."*

Another KII that *"The effect of the training program is from the point of view of the trainees only, must take the opinion of the trainers do they agree or not, and there should be a measuring tool."*

*Another KII that "Sure, there is the effect of training reflected on the trainee, although there is a variation in the benefit achieved from some departments or centers, in general, there is a positive change from the training"*

Another KII added that *"Benefit from the program varies according to the care and interest of the trainee, the upper limit of the benefit is not specified, but must set the minimum level to benefit for each rotation."*

While the lowest score statement stating that "*The objectives of the Internship program mentioned above have been achieved"* with weighted mean 60%, followed by a statement stating that "*I found the information that I need for outstanding performance" w*ith weighted mean 63 %.

In the FGD one of the participants explained that *"In the training program, there is variation inexperience in different centers and department. In some rotations, we gain good experience and in other, the experience level become low especially in minor rotations"*

Another participant mentioned that *"My experience is not so special, Break the fear barrier, but the guidelines not applied in the real work even it is known so that make a big gap"*

As seen from the opinions of some of the medical interns' doctors at this stage, most medical trainees agree that they acquire a lot of basic skills during the training program in different respects, whether in terms of clinical skills, personal skills, and social skills, but the training program should be more appropriate by adding more participating in clinical practice.

### 4.2.8 The overall mean of the respondent about the study domain.

**Table (4.8):** Total mean of respondent perception about the domains studied

| Domains | Median | Weighted Mean | SD |
|---|---|---|---|
| The role of GDHRD in the training. | 58.82 | 58.77 | 20.42 |
| The design of the MI program | 69.23 | 66.48 | 22.45 |
| The content of the MI program | 64.58 | 62.46 | 21.28 |
| The environment of the MI program | 67.86 | 66.17 | 21.70 |
| The effect of the MI program | 86.84 | 78.52 | 21.74 |
| **Total** | **68.39** | **66.44** | **18.07** |

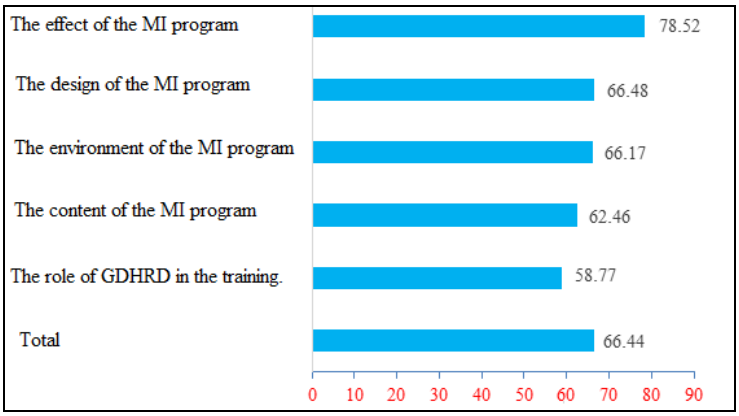


**Figure (4.4):** Total mean of respondent perception about the domains studied

Table 4.8 shows the weighted mean of the total domains was 66.44%. According to the results the first (highest) domain (5) "The effect of the MI program" with weighted mean 78.52%, the second domain is a domain (2) "The design of the MI program "with weighted mean 66.48%, followed by domain (4) "The environment of the MI program" with weighted mean 66.17% and domain (3) "The content of the MI program" with weighted mean 62.46%. Finally, (lowest) domains are (1) "The role of General Directorate of Human Resources Development in the training" with a weighted mean of 58.77%.

## 4.3 Inferential Statistics

This part represents the relationships between study domains and their relation of participant socio-demographic variables regarding governorates, age, gender, marital status, refugee status, educational qualifications, university graduations, place of graduations.

### 4.3.1 Difference between study domains and socio-demographic variables.

In this aspect, the researcher will discuss the main findings (difference) between the sociodemographic variables which include (age, gender, marital status, residency, Are there another physician in family members, refugee status) and study domains.

**Table (4.9):** Differences between study domains and governorates

| | Governorates | N | Mean | SD | F | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | North | 54 | 61.06 | 21.50 | 0.856 | 0.491 |
| | Gaza | 132 | 57.02 | 21.11 | | |
| | Middle zone | 35 | 58.82 | 19.15 | | |
| | Khan-Younis | 38 | 57.97 | 19.54 | | |
| | Rafah | 26 | 64.03 | 17.28 | | |
| | Total | 285 | 58.77 | 20.42 | | |
| The design of the MI program | North | 54 | 71.01 | 21.34 | 1.775 | 0.134 |
| | Gaza | 132 | 63.05 | 21.76 | | |
| | Middle zone | 35 | 65.93 | 25.70 | | |
| | Khan-Younis | 38 | 69.13 | 24.85 | | |
| | Rafah | 26 | 71.30 | 18.05 | | |
| | Total | 285 | 66.48 | 22.45 | | |
| The content of the MI program | North | 54 | 65.82 | 22.06 | 2.492 | 0.043 |
| | Gaza | 132 | 58.38 | 21.34 | | |
| | Middle zone | 35 | 68.39 | 20.92 | | |
| | Khan-Younis | 38 | 64.25 | 19.73 | | |
| | Rafah | 26 | 65.63 | 19.40 | | |
| | Total | 285 | 62.46 | 21.28 | | |
| The environment of the MI program | North | 54 | 70.50 | 16.38 | 3.925 | 0.004 |
| | Gaza | 132 | 61.77 | 22.52 | | |
| | Middle zone | 35 | 64.18 | 22.02 | | |
| | Khan-Younis | 38 | 69.92 | 24.43 | | |
| | Rafah | 26 | 76.65 | 17.15 | | |
| | Total | 285 | 66.17 | 21.70 | | |
| The effect of the MI program | North | 54 | 86.01 | 18.54 | 4.257 | 0.002 |
| | Gaza | 132 | 73.74 | 22.12 | | |
| | Middle zone | 35 | 83.31 | 20.63 | | |
| | Khan-Younis | 38 | 76.52 | 24.01 | | |
| | Rafah | 26 | 83.70 | 18.34 | | |
| | Total | 285 | 78.52 | 21.74 | | |
| **Total** | North | 54 | 70.83 | 16.24 | 3.038 | 0.018 |
| | Gaza | 132 | 62.71 | 18.53 | | |
| | Middle zone | 35 | 68.74 | 17.40 | | |
| | Khan-Younis | 38 | 67.35 | 19.48 | | |
| | Rafah | 26 | 71.88 | 14.98 | | |
| | Total | 285 | 66.44 | 18.07 | | |

Table 4.9 shows that there are differences between governorates and the five domains with P-value less than 0.05. The results show that there is no statistically significant relation between the role of the general directorate of human resources development in the training and the governorate. Participants from Rafah (P-value =0.491), with a higher mean score (64.03). Followed by participants, from North Gaza came second with a mean score (61.06). Followed by participants, the participants from Gaza got a mean score (57.02) came last, according to ANOVA test and post- hoc test (Bonferroni test).

In addition, there are no statistically significant differences between the design of the MI program and a governorate. Participants from Rafah (P-value= 0.134), with a higher mean score (71.30) followed by participants from North Gaza with a mean score (71.01). The participants from Gaza got a mean score of (63.05) came last, according to ANOVA test and post- hoc test (Bonferroni test).

The results show that there are statistically significant differences between the content of the MI program and the governorate. Participants from the Middle zone (P-value= 0.043), with a higher mean score (68.39) followed by participants from North Gaza with a mean score (65.82). The participants from Gaza got a mean score of (58.38) came last, according to ANOVA test and post hoc test (Bonferroni test).

In addition, there are statistically significant differences between the environment of the MI program and the governorate. The participants from Rafah (P-value= 0.004), with a higher mean score (76.65) followed by North Gaza with a mean score (70.50). The participants from Gaza got a mean score of (61.77) came last, according to ANOVA test and post hoc test (Bonferroni test). The FGD revealed that the intern doctors in smaller hospitals have more opportunities to practice than in large crowded hospitals.

The results show that there are highly statistically significant differences between the effect of the MI program and governorate. The participants from North Gaza (P-value= 0.002), with a higher mean score (86.01) followed by participants from Rafah with a mean score (83.70). The participants from Gaza got a mean score of (73.74) came last, according to ANOVA test and post hoc test (Bonferroni test). In FGD the intern doctors comment on this result could be due to the training environment in smaller hospitals less stress and crowded than larger hospitals, Also study in Norway showed that Physicians, who had worked in small local hospitals showed a higher level of communication skills at internship completion than those from the large county or regional hospitals, they found that physicians who had worked in local hospitals showed a higher internship completion level of specific professional skills but not for social skills. (Gude et al., 2009). Also, another study illustrated that no statistically significant relationship between livings place and the level of satisfaction. (Ziaee et al., 2004)

### 4.3.2 Differences between study domains and age

**Table (4.10):** Differences between study domains and age

| | Age (years) | N | Mean | SD | F | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Under 25 | 58 | 59.18 | 19.43 | 0.817 | 0.485 |
| | 25 | 88 | 56.72 | 21.02 | | |
| | 26 | 74 | 58.19 | 19.52 | | |
| | Above 26 | 65 | 61.86 | 21.49 | | |
| | Total | 285 | 58.77 | 20.42 | | |
| The design of the MI program | Under 25 | 58 | 67.57 | 20.34 | 0.714 | 0.545 |
| | 25 | 88 | 64.55 | 22.73 | | |
| | 26 | 74 | 65.28 | 22.54 | | |
| | Above 26 | 65 | 69.47 | 23.85 | | |
| | Total | 285 | 66.48 | 22.45 | | |
| The content of the MI program | Under 25 | 58 | 61.53 | 20.37 | | |
| | 25 | 88 | 61.60 | 21.22 | 0.385 | 0.764 |
| | 26 | 74 | 62.05 | 19.42 | | |
| | Above 26 | 65 | 64.94 | 24.27 | | |
| | Total | 285 | 62.46 | 21.28 | | |
| The environment of the MI program | Under 25 | 58 | 66.26 | 20.71 | 0.858 | 0.463 |
| | 25 | 88 | 68.87 | 20.17 | | |
| | 26 | 74 | 63.47 | 21.35 | | |
| | Above 26 | 65 | 65.49 | 24.80 | | |
| | Total | 285 | 66.17 | 21.70 | | |
| The effect of the MI program | Under 25 | 58 | 76.77 | 19.84 | 0.496 | 0.685 |
| | 25 | 88 | 78.65 | 19.41 | | |
| | 26 | 74 | 77.45 | 23.89 | | |
| | Above 26 | 65 | 81.13 | 23.93 | | |
| | Total | 285 | 78.52 | 21.74 | | |
| **Total** | Under 25 | 58 | 66.06 | 16.79 | 0.432 | 0.730 |
| | 25 | 88 | 65.98 | 17.28 | | |
| | 26 | 74 | 65.37 | 17.80 | | |
| | Above 26 | 65 | 68.64 | 20.60 | | |
| | Total | 285 | 66.44 | 18.07 | | |

Table 4.10 shows that there are no differences between the age group and the five domains with a P-value of less than 0.05. but there is some variation in mean score between the age group above 26 years old get the highest mean score in most of the study domains, Also, there is no statistically significant relationship between age and the level of student satisfaction according to (Ziaee et al., 2004). While there are different means in this domain between the age group is observed that older participants (above 26 years old) have the highest mean score in most domains, which could mean that they are more experienced, more knowledgeable, and more oriented.

### 4.3.3 Differences between study domains and gender

**Table (4.11):** Differences between study domains and gender

| | Gender | N | Mean | SD | T | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Male | 152 | 58.61 | 21.21 | -0.142 | 0.887 |
| | Female | 133 | 58.96 | 19.54 | | |
| The design of the MI program | Male | 152 | 64.88 | 22.28 | -1.287 | 0.199 |
| | Female | 133 | 68.31 | 22.59 | | |
| The content of the MI program | Male | 152 | 62.16 | 21.89 | -0.259 | 0.796 |
| | Female | 133 | 62.81 | 20.63 | | |
| The environment of the MI program | Male | 152 | 66.73 | 21.90 | 0.468 | 0.640 |
| | Female | 133 | 65.52 | 21.52 | | |
| The effect of the MI program | Male | 152 | 79.76 | 20.96 | 1.028 | 0.305 |
| | Female | 133 | 77.11 | 22.59 | | |
| **Total** | Male | 152 | 66.45 | 18.60 | 0.006 | 0.995 |
| | Female | 133 | 66.44 | 17.52 | | |

Table (4.11), Show the results of independent t-test to compare mean differences of participant perceptions between males and females of the study domains. There is no statistical significance difference between all the domains. However, in Iran, a study illustrated that no statistically significant relationship between gender and the level of intern's satisfaction (Ziaee et al., 2004). this result similar to other studies that showed no relation between gender and graduate entry status and preparedness (Cave et al., 2009). Also, another study in Kuwait showed that no statistically significant relationship between gender in their study (Al-Abdulrazzaq et al., 2014). These results agree with our results.

On the other side in a study conducted in Norway reported that female physicians significantly improved their skills from school completion to internship completion, both on total scores (overall communication skills) and on scores for the two sub-categories (general social skills and specific professional skills), while male physicians did not. Thus, female physicians obtained significantly higher scores than male physicians at internship completion (Gude et al., 2009).

### 4.3.4 Differences between study domains and marital status

**Table (4.12):** Differences between study domains and marital status

| | Marital Status | N | Mean | SD | T | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Not married | 186 | 58.46 | 20.44 | -0.353 | 0.724 |
| | Married | 99 | 59.36 | 20.46 | | |
| The design of the MI program | Not Married | 186 | 66.50 | 22.70 | 0.024 | 0.981 |
| | Married | 99 | 66.43 | 22.09 | | |
| The content of the MI program | Not Married | 186 | 62.01 | 21.42 | -0.496 | 0.621 |
| | Married | 99 | 63.32 | 21.10 | | |
| The environment of the MI program | Not Married | 186 | 65.78 | 21.00 | -0.407 | 0.684 |
| | Married | 99 | 66.88 | 23.04 | | |
| The effect of the MI program | Not Married | 186 | 78.68 | 21.22 | 0.166 | 0.869 |
| | Married | 99 | 78.23 | 22.80 | | |
| **Total** | Not Married | 186 | 66.23 | 18.07 | -0.269 | 0.788 |
| | Married | 99 | 66.84 | 18.17 | | |

Table (4.12) shows the results of the independent t-test to compare mean differences between marital status and the study domains. There is no statistical significance difference between marital status and training program perceptions in all domains, This result similar to other studies that illustrated no statistically significant relationship between marriage and the satisfaction level regarding the internship program. (Ziaee et al., 2004)

### 4.3.5 Differences between study domains and if there is another physician in the family member.

**Table (4.13):** Relationship between the study domains and the presence or absence of other physicians in the family

| | Another physician in the family members | N | Mean | SD | T | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Yes | 117 | 58.30 | 20.06 | -0.328 | 0.743 |
| | No | 168 | 59.10 | 20.71 | | |
| The design of the MI program | Yes | 117 | 64.33 | 23.18 | -1.348 | 0.179 |
| | No | 168 | 67.97 | 21.87 | | |
| The content of the MI program | Yes | 117 | 60.67 | 22.88 | -1.191 | 0.235 |
| | No | 168 | 63.72 | 20.06 | | |
| The environment of the MI program | Yes | 117 | 62.30 | 22.94 | -2.533 | 0.012 |
| | No | 168 | 68.86 | 20.42 | | |
| The effect of the MI program | Yes | 117 | 74.31 | 25.77 | -2.759 | 0.006 |
| | No | 168 | 81.45 | 17.93 | | |
| **Total** | Yes | 117 | 63.99 | 19.08 | -1.919 | 0.056 |
| | No | 168 | 68.15 | 17.19 | | |

Table (4.14), shows the results of independent t-test to compare mean differences between refugee status and the study domains. There is a statistical significance difference (P-value >0.05), between if there is another physician in the family member and training program perceptions in the environment and the effect domain while the other domains show there is no statistically significant difference with the presence or absence of other physicians in the family.

The presence of a family member has a positive effect on the environment because of their previous knowledge of good places of training and the presence of colleagues of his family members in the place of training. In addition to good prediction of the professional career of the interns as a result of his work or training in the family clinic or Colleague clinic and also the presence of a family member has a positive statically significant of the effect domain.

In the FGD and KII discussions revealed that" *The presence of a physician in the family members make the training process easy for them because of care that they get from the staff in the department"*

KII that "*My be because he has prior knowledge about the hospital system, and the start training earlier in their family clinic."*

### 4.3.6 Differences between study domains and refugee status

**Table (4.14):** Differences between study domains and refugee status

| | **Refugee status** | **N** | **Mean** | **SD** | **T** | **Sig.** |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Non-Refugee | 80 | 59.45 | 20.31 | 0.349 | 0.727 |
| | Refugee | 205 | 58.51 | 20.50 | | |
| The design of the MI program | Non-Refugee | 80 | 66.30 | 22.63 | -0.084 | 0.933 |
| | Refugee | 205 | 66.55 | 22.44 | | |
| The content of the MI program | Non-Refugee | 80 | 64.79 | 21.30 | 1.155 | 0.249 |
| | Refugee | 205 | 61.55 | 21.25 | | |
| The environment of the MI program | Non-Refugee | 80 | 65.04 | 22.28 | -0.544 | 0.587 |
| | Refugee | 205 | 66.60 | 21.50 | | |
| The effect of the MI program | Non-Refugee | 80 | 77.76 | 24.15 | -0.368 | 0.713 |
| | Refugee | 205 | 78.82 | 20.78 | | |
| **Total** | Non-Refugee | 80 | 66.85 | 19.12 | 0.234 | 0.815 |
| | Refugee | 205 | 66.29 | 17.69 | | |

Table (4.14), shows the results of independent t-test to compare mean differences between refugee status and the study domains. There is no statistical significance difference between refugee status and training program perceptions in all domains, (P-value >0.05).

### 4.3.7 Differences between study domains and educational level

**Table (4.15):** Differences between study domains and education level

| | Education | N | Mean | SD | T | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Bachelor | 281 | 58.71 | 20.34 | -0.440 | 0.660 |
| | Master | 4 | 63.24 | 28.67 | | |
| The design of the MI program | Bachelor | 281 | 66.37 | 22.42 | -0.678 | 0.499 |
| | Master | 4 | 74.04 | 26.90 | | |
| The content of the MI program | Bachelor | 281 | 62.33 | 21.32 | -0.891 | 0.374 |
| | Master | 4 | 71.88 | 18.20 | | |
| The environment of the MI program | Bachelor | 281 | 65.98 | 21.72 | -1.236 | 0.218 |
| | Master | 4 | 79.46 | 17.59 | | |
| The effect of the MI program | Bachelor | 281 | 78.62 | 21.73 | 0.630 | 0.529 |
| | Master | 4 | 71.71 | 24.81 | | |
| **Total** | Bachelor | 281 | 66.37 | 18.07 | -0.584 | 0.559 |
| | Master | 4 | 71.70 | 20.38 | | |

Table (4.15), shows the results of independent t-test to compare mean differences between education and the study domains. There is no statistical significance difference between education and training program perceptions in all domains because the majority of the study population are having a bachelor degree, (P-value >0.05).

### 4.3.8 Differences between study domains and year of graduation from university

**Table (4.16):** Differences between study domains and year of graduation from university.

| | Years of Graduation | N | Mean | SD | F | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | 2015 and before | 21 | 65.69 | 20.32 | 1.031 | 0.379 |
| | 2016 | 80 | 58.16 | 21.35 | | |
| | 2017 | 92 | 57.19 | 20.37 | | |
| | 2018 | 92 | 59.30 | 19.63 | | |
| | Total | 285 | 58.77 | 20.42 | | |
| The design of the MI program | 2015 and before | 21 | 70.88 | 25.70 | 1.069 | 0.362 |
| | 2016 | 80 | 65.72 | 24.06 | | |
| | 2017 | 92 | 63.80 | 21.70 | | |
| | 2018 | 92 | 68.81 | 20.90 | | |
| | Total | 285 | 66.48 | 22.45 | | |
| The content of the MI program | 2015 and before | 21 | 58.73 | 26.60 | 0.310 | 0.099 |
| | 2016 | 80 | 63.28 | 22.55 | | |
| | 2017 | 92 | 61.89 | 20.06 | | |
| | 2018 | 92 | 63.18 | 20.22 | | |
| | Total | 285 | 62.46 | 21.28 | | |
| The environment of the MI program | 2015 and before | 21 | 57.31 | 27.19 | 2.112 | 0.818 |
| | 2016 | 80 | 63.71 | 23.95 | | |
| | 2017 | 92 | 68.59 | 18.34 | | |
| | 2018 | 92 | 67.90 | 20.98 | | |
| | Total | 285 | 66.17 | 21.70 | | |
| The effect of the MI program | 2015 and before | 21 | 71.43 | 27.80 | 1.276 | 0.283 |
| | 2016 | 80 | 78.52 | 25.63 | | |
| | 2017 | 92 | 81.18 | 17.37 | | |
| | 2018 | 92 | 77.49 | 20.33 | | |
| | Total | 285 | 78.52 | 21.74 | | |
| **Total** | 2015 and before | 21 | 64.45 | 23.48 | 0.145 | 0.933 |
| | 2016 | 80 | 66.04 | 19.78 | | |
| | 2017 | 92 | 66.55 | 16.27 | | |
| | 2018 | 92 | 67.15 | 17.10 | | |
| | **Total** | **285** | **66.44** | **18.07** | | |

One-way ANOVA test used to figure out the differences between the scores of perceptions according to the year of graduation table 4.16. There are no statistically significant differences between all domains (P-value >0.05). Because of the difference in age between the study population is not so wide.

### 4.3.9 Differences between study domains and place of graduation

**Table (4.17):** Differences between study domains and place of graduation.

| | Place of Graduation | N | Mean | SD | F | Sig. |
|---|---|---|---|---|---|---|
| The role of General Directorate of Human Resources Development in the training | Palestine | 189 | 55.17 | 19.07 | 9.630 | 0.001> |
| | Arab Countries | 83 | 65.20 | 21.56 | | |
| | Foreign Countries | 13 | 70.14 | 19.02 | | |
| | Total | 285 | 58.77 | 20.42 | | |
| The design of the MI program | Palestine | 189 | 64.10 | 21.87 | 4.378 | 0.013 |
| | Arab Countries | 83 | 69.79 | 23.82 | | |
| | Foreign Countries | 13 | 79.88 | 14.15 | | |
| | Total | 285 | 66.48 | 22.45 | | |
| The content of the MI program | Palestine | 189 | 60.00 | 20.24 | 5.692 | 0.004 |
| | Arab Countries | 83 | 65.71 | 23.32 | | |
| | Foreign Countries | 13 | 77.56 | 12.99 | | |
| | Total | 285 | 62.46 | 21.28 | | |
| The environment of the MI program | Palestine | 189 | 64.08 | 20.58 | 3.846 | 0.022 |
| | Arab Countries | 83 | 68.93 | 23.47 | | |
| | Foreign Countries | 13 | 78.85 | 21.10 | | |
| | Total | 285 | 66.17 | 21.70 | | |
| The effect of the MI program | Palestine | 189 | 76.83 | 21.67 | 2.417 | 0.091 |
| | Arab Countries | 83 | 80.82 | 22.30 | | |
| | Foreign Countries | 13 | 88.46 | 15.59 | | |
| | Total | 285 | 78.52 | 21.74 | | |
| **Total** | Palestine | 189 | 64.00 | 16.71 | 6.796 | 0.001 |
| | Arab Countries | 83 | 70.04 | 20.30 | | |
| | Foreign Countries | 13 | 79.05 | 13.52 | | |
| | **Total** | **285** | **66.44** | **18.07** | | |

Table 4.17 shows that there are differences between domains and place of graduation with a P-value less than 0.05. The results show that there is a statistically significant relation between the role of the general directorate of human resources development in the training and place of graduation (P-value<0.001), with a higher mean score (70.14). Participants, from Foreign Countries, came second with a mean score of 65.20. Participants from the Arab Countries got a mean score of 55.17. The participants from Palestine came last, according to ANOVA test and post hoc test (Bonferroni test).

In addition, there are statistically significant differences between the design of the MI program and the place of graduation. The participants from Foreign Countries (P-value= 0.013), with a higher mean score (79.88) followed by participants from Arab Countries

with the mean score (69.79). The participants from Palestine got a mean score of (64.10) came last, according to ANOVA test and post hoc test (Bonferroni test).

The results show that there are highly statistically significant differences between the content of the MI program and the place of graduation. The participants from Foreign Countries (P-value= 0.004), with a higher mean score (77.56) followed by the participants from Arab Countries with the mean score (65.71). The participants from Palestine got a mean score of (60.00) came last, according to ANOVA test and post hoc test (Bonferroni test).

In addition, there are statistically significant differences between the environment of the MI program and the Place of Graduation. The participants from Foreign Countries (P-value= 0.022), with a higher mean score (78.85) followed by the participants from Arab Countries with the mean score (68.93). The participants from Palestine got a mean score of (64.08) came last, according to ANOVA test and post hoc test (Bonferroni test).

The results show that there are no statistically significant differences between the effect of the MI program and the Place of Graduation. The participants from Foreign Countries (P-value= 0.091), with a higher mean score (88.46) followed by the participants from Arab Countries with the mean score (80.82). The participants from Palestine got a mean score of (76.83) came last, according to ANOVA test and post hoc test (Bonferroni test).

In general, all domains are highly statically significant (P-value= 0.001).

Regarding these results, FGD revealed that graduates from local universities became very familiar with the training at MOH centers because they spent the last three years of their medical studies at MOH training centers as a medical student mostly with the same supervisors, so the year of internship is a repeated thing for them, which causes for them a feeling of bored, but the participants from Arab and foreign countries, the scenario is different for them.

## 4.4 How the participants who spent part of the internship program outside the Gaza Strip evaluate the local internship program.

**Table (4.18):** Distribution of the study participants according received part of the internship program outside the Gaza Strip

| **Items** | **Nu** | **%** |
|---|---|---|
| Spend part of the Internship Program outside the Gaza Strip | | |
| Yes | 30 | 10.5 |
| No | 255 | 89.5 |
| Total | 285 | 100.0 |
| Compare with the external franchise program, the Internship Program is considered in the Gaza Strip. | | |
| Weak | 7 | 23.3 |
| Average | 13 | 43.4 |
| Strong | 10 | 33.3 |
| **Total** | **30** | **100.0** |

Table 4.18 shows that the number of trainees who received part of the internship period outside the Gaza Strip (Arab or foreign countries) was 30 of the total number of participants in study 285, most of respondents evaluated the training program in Gaza as an average 43.4%, while 33.3% of the respondents evaluated the program as a strong and 23.3% rated the program as weak, due to this difference in evaluation, which reflects the importance of re-evaluating the local program and taking some recommendations from participants in external programs and comparing them with our result.

## 4.5 Participants perception about the quality of rotations and training centers

**Table (4.19)** Distribution of the study respondent according to their responses about best or worst rotations, and training centers

| **Best rotation** | | |
|---|---|---|
| **Rotation** | **Frequency** | **Valid Percent** |
| General surgery | 70 | 33.0 |
| Internal medicine | 58 | 27.4 |
| Pediatric | 47 | 22.2 |
| Obstetrics and gynecology | 37 | 17.5 |
| **Total** | 212 | 100.0 |
| **Best Training Center** | | |
| **Training Center** | **Frequency** | **Valid Percent** |
| Al Shifa Medical Complex | 59 | 31.6 |
| Naser Pediatric Hospital | 36 | 19.3 |
| Gaza European Hospital | 30 | 16.0 |
| Indonesian Hospital | 28 | 15.0 |
| Nasser Medical Complex | 18 | 9.6 |
| Al Remal Clinic | 8 | 4.3 |
| Al-Aqsa Hospital | 3 | 1.6 |
| Al Dora Hospital | 3 | 1.6 |
| Helal Emarati Hospital | 1 | 0.5 |
| Psychiatry Hospital | 1 | 0.5 |
| **Total** | **187** | **100.0** |
| **Worst rotation** | | |
| | **Frequency** | **Valid Percent** |
| General Surgery | 29 | 25 |
| Obstetrics and Gynecology | 25 | 21.6 |
| Internal medicine | 24 | 20.7 |
| Pediatric | 23 | 19.8 |
| Primary care | 9 | 7.8 |
| Psychiatry | 6 | 5.2 |
| **Total** | **116** | **100.0** |
| **Worst Training Center** | | |
| | **Frequency** | **Valid Percent** |
| Al Shifa Medical Complex | 31 | 10.8 |
| Naser Pediatric Hospital | 25 | 8.7 |
| Al-Aqsa Hospital | 15 | 5.2 |
| AL Dora Hospital | 11 | 3.8 |
| Al Remal Clinic | 9 | 3.1 |
| Psychiatry Hospital | 8 | 2.8 |
| Nasser Medical Complex | 6 | 2.1 |
| Helal Emarati Hospital | 5 | 1.7 |
| Indonesian Hospital | 4 | 1.4 |
| Gaza European Hospital | 3 | 1.0 |
| **Total** | **285** | **100.0** |

Table 4.19 shows the participants' responses about the best and worst rotations and the training centers. Our results showed that the best rotation from the participants' point of view is General surgery, 33% and Internal medicine 27%, followed by Pediatric 22% and the last rotation in Obstetrics and gynecology 17% of the total 212 participants respond to these questions. While the worst rotation showed that is General Surgery 25%, followed by Obstetrics and Gynecology followed by Internal medicine 20.7% and the last rotation is pediatric 19.8%. This result to some extent agrees with the study conducted in Saudi Arabia, which showed that training in general surgery and pediatrics was rated as excellent by most of the interns (45.8% and 43.1%, respectively). The picture is reversed in obstetrics and gynecology, as 43.1% rated it as average. (Swaid et al., 2017). And the confidence to perform common skills in Obstetrics & Gynecology varied according to a study conducted in Kuwait (Premadasa et al., 2008). FGD about this subject revealed that the intern achieved more practical training and skills in Internal medicine and Pediatric. One of the Intern doctors said that "*I gain more benefit in the Pediatric and Internal Medicine rotation than Obstetrics and Gynecology*" Another mentioned that "*training and supervision is much better in Pediatric and Internal medicine*"

Another KII added that "*The level of utilization is low in the surgical specialties due to the general situation and the busyness of doctors. There is not enough time for cases and the length of the list of surgical procedures.*"

The researchers assume that those who rated the surgery as the best were participants who trained in peripheral hospitals like (Indonesian hospital and Gaza European hospital) have more chances to practical training and more chances to operate and vice versa about the large hospitals. In addition that the supervisors are so busy in large training centers.

## 4.6 Qualitative analysis of the medical internship program

### 4.6.1 The major perceived points of strength in the medical internship program were highlighted by the participants

- Integration between the theoretical and practical aspects throughout dealing with a large number of patients, a variety of courses make a good opportunity for practical training and acquiring new clinical and surgical skills under supervision.
- Mutual respect for all health care providers
- Proper organization of the program, distribution among hospitals, medical lectures, training courses.
- Start integrating the intern doctors into the labor market and provide the opportunity to choose the future specialty.
- Follow up of trainees from the GDHRD and the easy communication between trainees and GDHRD
- The Period of training is suitable.
- Give the intern doctors some responsibilities at work
- The presence of scientific lectures electronic registration system, the registration mechanism is smooth and clear, conducting refresher courses and practical lectures
- Introduce the trainee to the laws, regulations, work mechanisms and how to deal with official papers within the Ministry of Health, in addition to enabling the trainee to take his freedom to apply what was learned during the bachelor program.

### 4.6.2 The major perceived points of weakness in the medical internship program were highlighted by the participants

- Lack of a clear job description and a clear training plan.
- Crowding of training centers with trainees, whether they are an internship trainee, medical school students, and board doctors, which lead to a negative effect on the training process?
- Focus on the follow-up on attendance and absence only without considering the benefit and skills that should be achieved from training.
- Delay in the payment of the monthly salary of the intern after the completion of training, while it is needed during the training period, especially in the difficult economic conditions in Gaza.
- Lack of follow-up and supervision of trainees in training centers and inequality in the assessment process.
- Lack of knowledge of the trainer and the trainee for the training objectives.

- Dealing with the intern as a student and not giving him important responsibilities in some centers.
- Training is the responsibility of the trainee and there is no clear system to follow.
- There is no direct supervisor in each department.
- There is no special place for trainees to rest and change clothes.
- Graduates of local universities find a repeat of last year training in medical school with the same trainers which cause boredom for them.
- Lack of specialized practical training courses such as BLS, Infection Control, Patient Safety, Psychiatry, Medicolegal, Documentation, Medical reporting.

### 4.6.3 The major Perceived opportunity/opportunities for improvement at the intern program were highlighted by the participants

- Acquire multiple practical and clinical skills such as diagnostic skills and taking patients' history, follow-up of patients, participate in the treatment plan, and the transfer of theoretical information to practical skills and specialized training course.
- Help in the selection of future specialization.
- Knowing the system followed in the Ministry of Health, in the training centers and various departments
- Gaining self-confidence
- Acquire the skills of scientific research and study for the specialization exam
- Gain experience from seniors and board doctors.
- Acquiring a new relationship
- Work as a team and sharing in decision making.

### 4.6.4 The major challenges facing the medical internship program were highlighted by the participants

- Lack of suitable place for training.
- Making urgent medical decisions.
- Lack of special protocols to deal with an emergency patient.
- Lack of cooperation between medical staff.
- Dealing with many patients with different conditions at the same time.
- Understand the system that each hospital is dealing with.
- Overcrowded training centers.
- Lack of supervision.
- The absence of a clear job description for the intern doctors.

- Long shifts of work.
- Obtaining distinguished practical skills and applying and transforming theoretical information into practical skills.
- Integration with medical staff and work from day one in training.

### 4.6.5 Suggestions proposed to make a positive change in the medical internship program were highlighted by the participants

- Increasing practical training courses such as (ACLS, ATLS, SPSS, Clinical research, how to write your CV, how to choose your speciality...).
- Demanding scientific research from intern doctors during the training period.
- Provide a clear job description and focusing on the practical aspects.
- Separate the training of university students from the interns.
- The evaluation process of each course immediately after the end of the period in the GDHRD in the presence of a committee of trainers.
- Modify the training period in the emergency department to one month instead of two weeks.
- Assigned trainers in charge of the interns within each department to follow up with him continuously and constructively and increasing the monitoring and follow up.
- Emphasis on learning basic skills and training and focusing on common diseases.
- Providing a suitable place for intern doctors for (sleeping, resting or personal things) in all training centers especially during shifts.
- Provide a monthly salary for the intern doctors.

### 4.6.6 The most important skill acquired during the medical internship program was highlighted by the participants

- Gain a lot of clinical practical and scientific skills such as the ability to assess disease conditions and how to deal with them from admitting to discharge.
- Self-confidence and tolerance of work stress.
- Bear the pressure of work, decision-making.
- Confidence in making appropriate medical decisions for different conditions.
- Communicate with patients and colleagues become better and easier.
- Ability to link theoretical information with practical application.
- Integration in the field of work and help to choose the preferred future career.
- Dealing with surgical emergencies
- Develop scientific research skills.
- Enhance basic surgical skills, prescribing treatment and doses accurately.

### 4.6.7 The most important suggestions proposed to make development in the performance of the medical internship program were highlighted by the participants

- Define the list of skills needed for every rotation ( a guide booklet).
- Increase Specialist training courses for doctors such as BLS / ACLS / ATLS
- Separating the time of university students from the interns' time as it negatively affects educational and practical achievement.
- Continuous follow-up of the training centers and assure that skills required from the trainee have been obtained. (OSCE) if possible.
- Assigning an official trainer to the intern doctors.
- Provide a suitable place for intern doctors in training centers
- Provide a monthly base salary for the intern doctors.
- Making evaluation practical as well as theoretical because practical evaluation is not done at all.
- Provide specialization scholarship abroad and collaborate with hospitals outside the Gaza Strip, giving the intern a wider opportunity to acquire diverse medical skills.

# Chapter Five

## Conclusion and Recommendation

### 5.1 Conclusion

The effects of the MI training program domain hold the highest, followed by the design of the MI program domain, the environment of the MI program domain, the contents of the MI program domain, and the role of the GDHRD regarding the training domain ranked the last.

The design of the MI program supports variety in training in various medical disciplines and there is a chance to participate in practical and scientific activities. But that depends on the trainee's efforts more than the system imposed on them. Therefore, there is a need to utilize a proper design for the training program that contains all the needs of intern doctors and to assure that the training need in every department is covered by a supervisor. Also, the result reflected the need to increase the practical sessions in every training department with more focus on the acquired clinical skills rather than the theoretical skills.

The findings of our study highlighted that the majority of the study sample was male, with age group between 25-26 years, and the highest percentage of the study sample was from Gaza, while the rest of the participants were from the different governorates. Additionally, the majority of the study sample was single. The vast majority of the study sample were graduated from local universities in Gaza, while the others from the different university from abroad.

Findings show that the administrative procedures and registration process are simple and easy flow, in addition, the respondents are satisfied with providing lectures to strengthen the practical aspects by GDHRD and they need more practical courses. While it illustrates that there is a gape in another area such as assurance that all participants receive a guide booklet, either hard or soft copy, orientation program, the field supervision on the trainee in the training centers, and the need to remodify the evaluation tools to be fairer.

The respondent confirmed that the MI program provides an opportunity to participate in surgical operations, dealing with common cases, and involve in the discussion of cases and diagnosis process. While the content of the training program does not include important topics such as BLS, Infection control, Patient safety, medicolegal aspect, documentation,

Psychiatry, administrative skills, Quality of health service etc.…, which highlights the need to reform the content of training program and adding these important topics.

Additionally, the result shows the mutual respect and cooperation between the staff and the intern doctors is satisfactory, but the main problem is the environment of the training program regarding the availability of suitable places for trainees that negatively affect the training environment. The GDHRD needs to make more effort to provide a suitable place for intern doctors in all training centers.

Concerning the effect of the training program, the result of the study shows that the MI had a positive effect on the intern doctors, such as increasing awareness about the health system in the facilities of the MOH, gained new practical skills, increased the self-confidence, personal and communication skills, etc…., as is perceived by the intern doctors, but the study didn't use any scale to judge about the effect of the training program so there is a need for further evaluation of the effect of training program according to valid tools.

Also, there are statistically significant differences between the role of the GDHRD, the design, the content, the environment of the MI program domains and the place of graduation, while there was no statistically significant difference between the effect of the training program domain and the place of graduation.

The result showed that there are statistically significant differences between the domains of the content, the environment and the effect of the MI program domain and the governorate. One of the notable findings that the ranking was constant in all domains, the highest mean is for the participant from foreign countries followed by the participants from the Arab countries and came last the participants from Gaza.

Moreover, the result revealed that there was no statistically significant difference between (age-gender- Marital status- refugee status, education – years of graduations) and training in all domains. Most participants who received part of the internship period outside the Gaza Strip (Arab or foreign countries) evaluated the training program in Gaza as an average, while one-third of the respondents evaluated the program as a strong and the rest of the participants rated the program as weak. Due to this difference in evaluation, which reflects the importance of re-evaluating the local program and taking some recommendations from participants in external programs and comparing them with our result.

Additional challenges that face the intern's doctors is the lack of cooperation between medical staff, overcrowded of trainees in some training centers, lack of supervision, workload, and the absence of clear job description.

## 5.2 Recommendations

Based on the results and conclusion of our study, the researcher suggests the following recommendations for future implementation:

1- Distribution of the guidance booklet to all interns' doctors before they start the Internship training program.
2- The field supervision should be done on a regular basis by the GDHRD in the training centers.
3- The trainee should know clearly their rights and duties before starting the training program.
4- Modification of the evaluation tools to be fair and appropriate.
5- Enhancing and modifying the practical sessions at the training centers to be more systematized and applicable.
6- The MI program should be organized in a systematic way by GDHRD to be more efficient and decrease the trainee dependency.
7- Multidisciplinary team working should be encouraged to be valid started from the medical internship period and ongoing. because GS usually face a lot of challenges and disasters.
8- Supervisors, trainers, trainees should have incentives in a regular manner.
9- Designing of a new MI program with high quality to be compatible with the international qualified programs. I suggest the training period to be two years duration and one year accredited as one-year training in the residency program (Integration of UK and Australian system)

The Internship program needs to be more inclusive by adding more lectures, courses such as the medicolegal aspects, documentation and medical reporting, interpersonal communication, quality of health service, teamwork, patient safety, and infection control, Psychiatry, Drugs prescription for common disease.

Providing a special place for trainees (to take a break - personal things - changing clothes - toilets... etc.) in all of the training centers.

## 5.3 Recommendation for a new area of research

1- A study focusing on and exploring every domain which might be helpful to improve the MI program.
2- A study at the national level is needed to explore the difference in the MI in Gaza and West bank.
3- A matching study comparing MI in Gaza and another country with a high-quality MI program.

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# Annexes

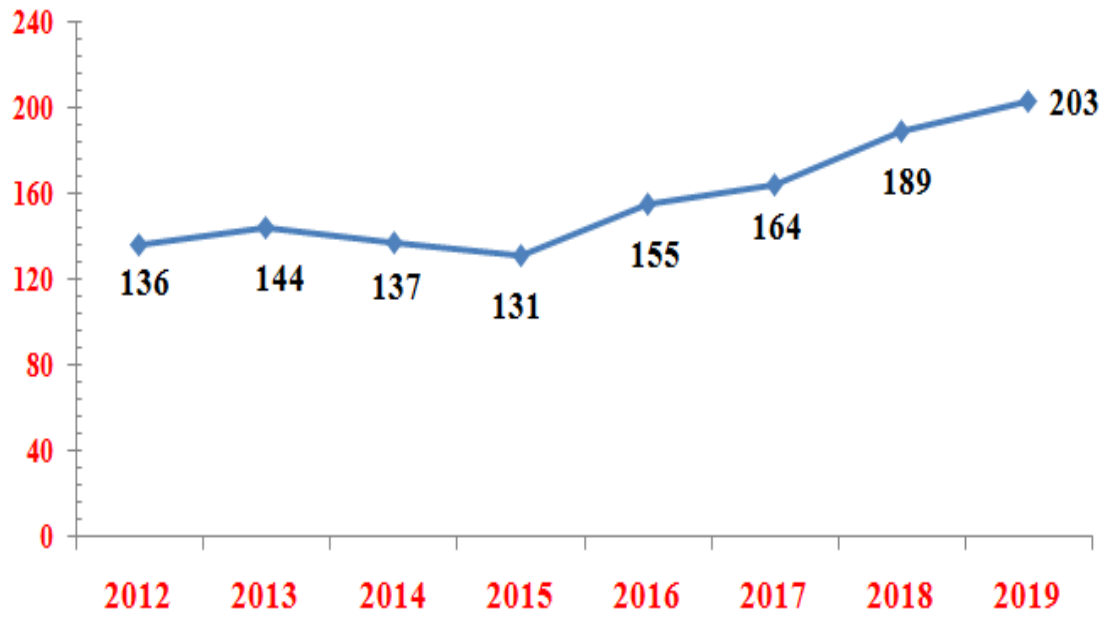
## Annex (1): Palestine Map


**Source**: (PCBS, 2017)

**Annex (2): Distribution of Gaza Strip Governorates**


Source: (PCBS, 2010)

**Annex (3): Trend showed the Increasing number of intern doctors from 2012 until 2019.**



**Annex (4)** the **study instrument Arabic**

**Evaluation of MI Program at the Ministry of Health in Gaza**

عزيزي الزميل/ة

أنا احمد صلاح الشرفا طالب في جامعة القدس أبو ديس اعمل بوظيفة مسئول شعبة الإمتياز للطب البشري في الإدارة العامة لتنمية القوى البشرية بقطاع غزة أود أن أعلم سيادتكم انه قد تم اختيارك للاشتراك في الدراسة البحثية التي تركز علي "تقييم برنامج إمتياز الطب البشري في وزارة الصحة بغزة"

"Evaluation of MI Program at the Ministry of Health in Gaza"

كجزء من متطلب للحصول على درجة الماجستير في الصحة عامة – الإدارة الصحية. تهدف هذه الدراسة إلى تقييم برنامج التدريب الإلزامي (الإمتياز) المطبق في مرافق وزارة الصحة الفلسطينية بغزة، حيث أن المشاركة في هذه الدراسة طوعية ويمكنك اختيار عدم الإجابة على أي سؤال و / أو على جميع الأسئلة، رغم أننا نقدر كثيراً مشاركتك حيث إجاباتك مهمة. المشاركة في الدراسة يتطلب الإجابة على مجموعة من الأسئلة وسندخل ردودكم إلى الجداول مباشرة. تستغرق تعبئة الاستبيان حوالي 20 دقيقة من وقتكم. المعلومات التي ستعطيها لنا ستكون موضع السرية ولن يطلع عليها سوى فريق البحث، مرة أخرى، إن مشاركتك طوعية وبإمكانك القبول أو الرفض الكلي أو الجزئي للمشاركة.

لن يكون هناك تكلفة مالية عليك نتيجة لمشاركتك والمعلومات التي سيتم الحصول عليها عنك في هذه الدراسة لن تؤثر على الخدمات ، وسيتم التعامل مع البيانات الخاصة بك على أنها سرية.

شكـرا لحسـن تعـاونكـم

الباحث / أحمد صلاح الشرفا

| | | |
|---|---|---|
| **الرقم التسلسلي**:---------- | | |
| **من فضلك أجب عن الأسئلة التالية** | | |
| 1.العمر.....سنة | | |
| 2.الجنس | ذكر ☐ | أنثى : ☐ |
| **3.عنوان حسب المحافظة** | | |
| الشمال ☐ غزة ☐ | الوسطى ☐ رفح | خان يونس ☐ |
| 4.**الحالة الاجتماعية:** أعزب/آنسة ☐ | متزوج /ة ☐ | مطلق/ة ☐ أرمل/ة |
| 5.**المؤهل العلمي**: ماجستير ☐ | بكالوريوس ☐ | دكتوراة ☐ |
| 6. معدل الثانوية العامة ☐ | سنة التخرج ☐ | معدل البكالوريوس ☐ سنة التخرج ☐ |
| 7. هل يوجد طبيب في أحد أفراد العائلة | نعم ☐ | لا ☐ |
| 8. حدد أي من أفراد العائلة | الأب ☐ الأم ☐ | الأخ ☐ الأخت ☐ |
| 9. **بلد التخرج:**..... | الجامعة: ..... | كلية:..... |
| 10. مواطن ☐ | لاجئ ☐ | |

**اقرأ العبارات التالية وضع علامة " ✓ " أمام الإجابة التي تناسبك قناعاتك، علماً بأنه لكل عبارة ثلاث إجابات كما هو مبين في الجدول التالي:**

| الرقم | العبـــارة | موافق | محايد | غير موافق |
|---|---|---|---|---|
| | **المحور الأول: دور الإدارة العامة لتنمية القوى البشرية (المؤسسة) في عملية التدريب** | | | |
| 1 | ألية التسجيل لبرنامج الإمتياز واضحة وسهله | | | |
| 2 | المعاملات الإدارية لبرنامج الإمتياز تتم ضمن آلية واضحة | | | |
| 3 | يتم تقديم شرح لآلية التسجيل لبرنامج الإمتياز | | | |
| 4 | توزع التنمية دليل إرشادي لبرنامج الإمتياز على المتدربين | | | |
| 5 | يتعرف المتدرب على أهداف وآليات و إجراءات برنامج الإمتياز في التنمية بشكل كاف قبل البدء بالتدريب | | | |
| 6 | يتعرف المتدرب قبل البدء بالتدريب على حقوقه وواجباته بشكل واضح | | | |
| 7 | تقوم التنمية بطلب التأكيد من حصول المتدرب علي تطعيم الإلتهاب الكبد الوبائي | | | |
| 8 | تقوم التنمية بمتابعة مراكز التدريب بصورة منتظمة للاطمئنان على سير العملية التدريبية | | | |

| الرقم | العبـــارة | موافق | محايد | غير موافق |
|---|---|---|---|---|
| 9 | يعتبر الإشراف الميداني من قبل التنمية على المتدربين في المراكز التدريبية مناسباً و كافياً | | | |
| 10 | تعتبر أداة التقييم في الأقسام المختلفة تراعي جميع الجوانب والمهارات في كل قسم بشكل جيد | | | |
| 11 | يتم التقييم علي أسس علمية عادلة بين جميع المتدربين | | | |
| 12 | تقوم التنمية بمتابعة جميع تقيمات المتدربين في نهاية كل مساق تدريبي | | | |
| 13 | تنظم التنمية المحاضرات العلمية للمتدربين لتدعيم الجوانب العملية | | | |
| 14 | تقوم التنمية باختيار المدربين بعناية حسب التخصص | | | |
| 15 | تقوم التنمية بتنظيم دورات تدريبية وتنشيطية أثناء فترة التدريب | | | |
| 16 | لا تعتبر الدورات التنشيطية التي تقدمها التنمية كافية | | | |
| 17 | إجراءات إستخراج شهادة إتمام فترة التدريب سلسة ومنظمة | | | |
| **المحور الثاني: تصميم البرنامج التدريبي** | | | | |
| 1 | يوجد أهداف واضحة ومكتوبة لبرنامج الإمتياز | | | |
| 2 | لا يوجد أهداف واقعية لبرنامج الإمتياز | | | |
| 3 | تم شرح أهداف برنامج الإمتياز من قبل التنمية | | | |
| 4 | تتوافق مع أهداف برنامج الإمتياز | | | |
| 5 | يتلقى المتدرب لقاءات عملية في مكان التدريب بصورة منهجية | | | |
| 6 | يعتمد حجم التدريب علي مجهود المتدرب أكثر من النظام المفروض عليه | | | |
| 7 | يحفز برنامج الإمتياز الخريج على مراجعة معلوماته العلمية التي تلقاها خلال دراسته الجامعية | | | |
| 8 | يتاح للمتدرب المشاركة في إعطاء محاضرات و أنشطة علمية وعملية في مكان التدريب | | | |
| 9 | يراعي برنامج الإمتياز الجوانب الغير فنية ( القانونية – الأخلاقية–الإدارية اللازمة لعمل الطبيب... إلخ) ذات العلاقة | | | |
| 10 | يحتوي تصميم برنامج الإمتياز لدورات أساسية لطبيب الإمتياز مثل أساسيات إنقاذ الحياة | | | |
| 11 | يتيح تصميم برنامج الإمتياز تبادل الخبرات والمهارات مع الفريق الطبي | | | |
| 12 | دعم برنامج الإمتياز التنوع في التدريب في التخصصات الطبية المختلفة | | | |
| 13 | يحقق برنامج الإمتياز الإجتياجات التدريبية اللازمة لطبيب الإمتياز | | | |
| **المحور الثالث: محتوى البرنامج التدريبي** | | | | |
| 1 | محتوى برنامج الإمتياز (قائمة المهارات) كانت واضحة | | | |
| 2 | يحتوي برنامج الإمتياز على قائمة المهارات الأساسية في مساق الباطنة العامة | | | |
| 3 | يحتوي برنامج الإمتياز على قائمة المهارات الأساسية في مساق الجراحة العامة | | | |
| 4 | يحتوي برنامج الإمتياز على قائمة المهارات الأساسية في مساق أمراض النساء والتوليد | | | |

| الرقم | العبـــارة | موافق | محايد | غير موافق |
|---|---|---|---|---|
| 5 | يحتوي برنامج الإمتياز على قائمة المهارات الأساسية في مساق الأطفال | | | |
| 6 | يحتوي برنامج الإمتياز على قائمة المهارات الأساسية في مساق الرعاية الأولية | | | |
| 7 | أتاح برنامج الإمتياز الفرصة لي للإطلاع على عدد كافي من الحالات في كل مساق | | | |
| 8 | يوجد تنوع في الحالات بشكل كافي للتدرب | | | |
| 9 | يتم التدريب على التعامل مع الأمراض الشائعة بشكل جيد | | | |
| 10 | يمكن أن يشارك المتدرب في العمليات الجراحية | | | |
| 11 | تمتاز المادة التدريبية بقابليتها للتطبيق | | | |
| 12 | المحتوى التدريبي متوفر في جميع مراحل برنامج الإمتياز | | | |
| 13 | لا يشرك طبيب الإمتياز في مناقشة الحالة المرضية والتشخيص المبدئي مع المدرب | | | |
| 14 | يتيح مركز التدريب المهارات الكافية للمتدرب لممارسة المهنة | | | |
| 15 | مدة برنامج الإمتياز غير كافية للحصول على المعلومات والمهارات اللازمة لممارسة المهنة بكفاءة سؤال سلبي سقط سهوا | | | |
| 16 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال أخلاقيات المهنة | | | |
| 17 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في الجانب القانونية الطبية | | | |
| 18 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال الإتصال والتواصل | | | |
| 19 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال العمل ضمن الفريق | | | |
| 20 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال مكافحة العدوي | | | |
| 21 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال سلامة المرضى | | | |
| 22 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال التوثيق و كتابة التقارير الطبية | | | |
| 23 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال التوثيق السريري والبحث الصحي | | | |
| 24 | يحتوى برنامج الإمتياز علي محاضرات تنشيطية في مجال جودة الخدمات الصحية | | | |
| **المحور الرابع: بيئة التدريب (المستشفيات / مراكز الرعاية الأولية)** | | | | |
| 1 | لا يوجد متابعة إدارية من المراكز التدريبية للمتدربين( الحضور والإنصراف- الإجازات- التدوير بين الأقسام) | | | |
| 2 | تقوم أدارة المراكز التدريبية بالمتابعة الفنية للمتدربين (عملية التدريب- التقيم) | | | |
| 3 | مركز التدريب يسهل تطبيق ماتم تعلمه | | | |
| 4 | نظام العمل في مركز التدريب منسجم مع اهداف التدريب | | | |
| 5 | الإضاءة في الأماكن التدريبية كافية | | | |
| 6 | التهوية في الأماكن التدريبية كافية | | | |
| 7 | التدفئة في الأماكن التدريبية كافية | | | |
| 8 | مركز التدريب مجهّز ومناسب للتدريب | | | |
| 9 | أماكن التدريب ( الأقسام ) تتناسب مع عدد المتدربين | | | |

| الرقم | العبـــارة | موافق | محايد | غير موافق |
|---|---|---|---|---|
| 10 | يتوفر مكان ملائم للمتدربين (للراحة – تأمين الأغراض الشخصية – تبديل الملابس – دورات مياه ....الخ) | | | |
| 11 | يتوفر قاعة لعرض المحاضرات النظرية التي يعدها المتدربين | | | |
| 12 | يحترم الطاقم الطبي المتدربين | | | |
| 13 | يتعاون الطاقم الطبي مع المتدربين | | | |
| 14 | يتوفر في أماكن التدريب الخدمات اللوجستية (المستلزمات الطبية اللازمة للتدريب) التي يحتاجها المتدربون | | | |
| **المحور الخامس: أثر البرنامج التدريبي** | | | | |
| 1 | تحققت أهداف برنامج الإمتياز المذكورة سابقا | | | |
| 2 | اكتسبت مهارات علمية جديدة أثناء فترة تدريبي | | | |
| 3 | أصبح لدي القدرة على المشاركة في اتخاذ القرار المناسب مع المرضى | | | |
| 4 | تطبيق البرنامج التدريبي يقلل الفجوة بين الواقع النظري والواقع العملي | | | |
| 5 | القدرة علي تطبيق معظم المهارات التي اكتسبتها خلال برنامج التدريب | | | |
| 6 | برنامج الإمتياز زادني ثقة في مساعدة زملائي في مجال العمل | | | |
| 7 | برنامج الامتياز ساعدني في اختيار التخصص | | | |
| 8 | وجدت ما كان ينقصني من معلومات من أجل أداء متميز | | | |
| 9 | أدائي تميز بفضل التدريب | | | |
| 10 | أصبحت أكثر ثقة بنفسي بسبب التدريب | | | |
| 11 | فهمت دور الطبيب في المرافق الصحية المختلفة | | | |
| 12 | أصبح لدى دراية عن النظام الصحي في مرافق وزارة الصحة | | | |
| 13 | ساعد برنامج الإمتياز على تنمية القدرات والمهارات الشخصية للمتدرّب | | | |
| 14 | أجد صعوبة في الإندماج في سوق العمل | | | |
| 15 | يتيح برنامج الإمتياز للخريج التعرف على أنظمة العمل في المرافق الصحية المختلفة والاجراءات المتبعة فيها | | | |
| 16 | يسهم برنامج الإمتياز في إكساب المتدرب مهارات في الاتصال والتواصل الفعال مع زملاء المهنة والجمهور | | | |
| 17 | القدرة على العمل ضمن الفريق و المشاركة في اتخاذ القرارات | | | |
| 18 | لم يضف علي برنامج الإمتياز أي فائدة عملية | | | |
| 19 | القدرة على تحمل ضغوط العمل | | | |

- **حسب رأيك ما هي نقاط القوة في برنامج الإمتياز:**

**1.** ..... .

**2.** ..... .

**3.**..... .

- **حسب رأيك ما هي نقاط الضعف في برنامج الإمتياز:**

1. ..... .
2. ..... .
3. ..... .

- **رأيك ما هي الفرصة/الفرص التي تم استغلالها في برنامج الامتياز.**

1. ..... .
2. ..... .
3. ..... .

- **حسب رأيك ما هي أهم التحديات التي واجهتك أثناء برنامج الامتياز.**

1. ..... .
2. ..... .
3. ..... .

- **مقترحات للتغيير في برنامج الإمتياز:**

1. ..... .
2. ..... .
3. ..... .

- **أهم مهارة اكتسابتها خلال برنامج الإمتياز:**

1. ..... .
2. ..... .
3. ..... .

- **أهم مقترح تراه لتطوير أداء برنامج الإمتياز :**

1. ..... .
2. ..... .
3. ..... .

- **هل قضيت جزء من برنامج الإمتياز خارج قطاع غزة نعم ☐ لا ☐**
- **في حال الأجابة نعم، بالمقارنة مع برنامج الإمتياز الخارجي يعتبر برنامج الإمتياز في قطاع غزة .**

**قوى ☐ متوسط ☐ ضعيف ☐**

- **حسب رأيك أذكر أفضل أو أقل جودة للبنود التالية:**

| م. | البند | أفضل جودة | أقل جودة |
|---|---|---|---|
| 1 | المساق | | |
| 3 | مركز تدريب | | |

**Annex (5) the study instrument in English**

**Evaluation of MI Program at the Ministry of Health in Gaz**

Dear participant:

I am Ahmed Salah Alshorafa a student at the Master Degree in Public Health program, - Health management Track, at Al Quds University, conducting a research study about Evaluation of MI Program at the Ministry of Health in Gaz. The study is part of the requirements for the fulfillment of the master degree in public health. The study aims to evaluate the MI program in Gaza governorates in order to provide recommendations that finally contribute to improving the MI program which could be reflected in the health care system and medical practice.

Participation in the study involves filling an online questionnaire about your experience, and others will be interviewed individually or in groups. There are no right or wrong answers, answer as you feel/perceive. It takes about 20 minutes of your valuable time to fill in the questionnaire.

Although participation in this study is voluntary and you have the right to participate or not, your participation is highly appreciated. You are free to participate or withdraw at any moment.

Your confidentiality will be kept and your name and contacts will never be mentioned, and the information you provide will only be used for research purposes. Once again, I would like to thank you for agreeing to participate.

Ahmed AlShorafa

| |
|---|
| **Serial number:** |
| **Please answer the following questions:** |
| 1-Age: |
| 2-Sex: Male: Female: |
| **3-Address according to governorate:** |
| North Gaza Midzone Khanyones Rafah |
| **4-Martial statues:** single Married Divorced Widowed |
| **5-Educational Qualification:** Master degree Bachelor degree PHD |
| **6-High School average: Years of graduation: Bachelor average: Year of graduation** |
| **7-Dose any physician in your family members?** Yes: No: |
| **8-Mark who's in your family members physician:** Father Mother Brother Sister |
| **9-Country of graduation**: … University …… Collage……. |
| 10-Citizen: ……. Refuge: ……. |

**Read the following sentences and put ( ) in front of the answer that you agree with your believes, each sentence has three options according to the following table:**

| No. | Sentences | Agree | Neutral | Disagree |
|---|---|---|---|---|
| **The first theme: the role of the General Directorate for Human Resources Development (GDHRD) (the Organization) in the training process:** | | | | |
| **1** | Registration flow for the internship program is clear and easy | | | |
| **2** | Administrative procedures of the internship program are carried out within a clear step | | | |
| **3** | An explanation of the registration steps provided for the internship program | | | |
| **4** | GDHRD distribute the guide booklet to the trainees of the internship program | | | |
| **5** | GDHRD provide sufficient information about the objectives and procedures of internship program before starting the training | | | |
| **6** | The trainee identifies the rights and duties clearly before the starting of the training | | | |
| **7** | GDHRD ensure that all trainees have vaccinated for hepatitis before the starting of the training | | | |
| **8** | GDHRD follows up the training centers regularly to check on the training process | | | |
| **9** | The field supervision by the GDHRD of the trainees in the training centers is appropriate and sufficient | | | |
| **10** | The evaluation tools in the various department take into account all aspects and skills in each department. | | | |
| **11** | The evaluation tools based on a fair scientific basis among all trainees | | | |
| **12** | GDHRD follows all trainees' assessments at the end of each training department | | | |
| **13** | GDHRD provide scientific lectures for trainees to strengthen the practical aspects | | | |
| **14** | GDHRD selects trainers carefully according to specialization | | | |

| No. | Sentences | Agree | Neutral | Disagree |
|---|---|---|---|---|
| **15** | GDHRD organizes training and refreshing courses during the training period | | | |
| **16** | The refreshing courses provided by GDHRD are not sufficient | | | |
| **17** | The procedures for obtaining the certificate of completion of the training period are smooth and organized | | | |
| **The second theme: design of the program** | | | | |
| **1** | Do written and clear goals and objectives exist for the internship program | | | |
| **2** | There are no realistic objectives for the internship program | | | |
| **3** | Objectives of the internship program were explained by GDHRD | | | |
| **4** | Agree with the objectives of the Internship program. internship program | | | |
| **5** | The trainee receives practical meetings in the training place systematically | | | |
| **6** | The condense of training depends on the trainee's efforts more than the system imposed on him by GDHRD | | | |
| **7** | The internship program encourages trainees to review their scientific information which they received during their university studies | | | |
| **8** | The trainee is allowed to participate in giving scientific lectures and practical activities in the training department | | | |
| **9** | The internship program shall take into account the non-technical aspects (legal, ethical, administrative, which is necessary for the physician's work, etc.) | | | |
| **10** | The internship program consists of basic courses for the trainees such as basic life support (BLS) | | | |
| **11** | The design of the internship program allows exchanging of experience and skills with the medical team | | | |
| **12** | Internship program supports variety in training in various medical disciplines | | | |
| **13** | The internship program achieves the training needs of the trainees | | | |
| **The third theme: Content of the training program** | | | | |
| **1** | The content of the Internship program (skills sheet) was clear | | | |
| **2** | The internship program contains a list of basic skills in internal medicine | | | |
| **3** | The internship program contains a list of basic skills in general surgery | | | |
| **4** | The internship program contains a list of basic skills in obstetrics and gynecology | | | |
| **5** | The internship program contains a list of basic skills in pediatrics | | | |
| **6** | The internship program contains a list of basic skills in primary health care | | | |
| **7** | The internship program gave me the opportunity to see enough cases in each rotation | | | |
| **8** | There is enough variety in the cases to train | | | |
| **9** | Training on dealing with common cases is provided | | | |

| No. | Sentences | Agree | Neutral | Disagree |
|---|---|---|---|---|
| | well | | | |
| **10** | The trainee can be participating in surgical operations | | | |
| **11** | The training material can be applicable | | | |
| **12** | The training content is available at all stages of the program | | | |
| **13** | The trainees are not involved in the discussion of cases and participating in the initial diagnosis with the trainer | | | |
| **14** | The training center provides sufficient opportunity to practice professional skills for the trainee | | | |
| **15** | Duration of the Internship program is not sufficient to obtain the information and skills necessary to practice the profession efficiently | | | |
| **16** | The Internship program contains lectures in professional ethics | | | |
| **17** | The internship program contains lectures in the medicolegal aspects | | | |
| **18** | The internship program contains lectures in the interpersonal communication | | | |
| **19** | The internship program includes lectures in teamwork. | | | |
| **20** | The internship program contains lectures in infection control | | | |
| **21** | The internship program contains lectures in patient safety | | | |
| **22** | The internship program includes lectures in the documentation and medical reporting | | | |
| **23** | The internship program includes lectures in clinical audit and health research | | | |
| **24** | The internship program contains lectures in the quality of health service | | | |
| **The fourth theme: Training Environment (Hospitals / Primary Care Centers)** | | | | |
| **1** | There is no administrative follow-up from the training centers for the trainees (attendance and leave - leave - rotation between departments) | | | |
| **2** | The training center management does a technical follow-up of the trainees (the training process – evaluation- distribution of trainee …etc.). | | | |
| **3** | Training center facilitates the application of what the trainee learned | | | |
| **4** | The system of work in the training center is consistent with the training objectives | | | |
| **5** | Lighting in the training areas is sufficient | | | |
| **6** | Ventilation in the training areas is sufficient | | | |
| **7** | Warming is adequate training places | | | |
| **8** | The training center is well equipped and suitable for training | | | |
| **9** | Training places (department) suit with the number of trainees | | | |
| **10** | There is a suitable place for trainees (for rest - personal things - changing clothes - toilets ... etc.) | | | |
| **11** | A lecture hall for the theoretical lectures prepared by trainees is available | | | |
| **12** | The medical staff respects the trainees | | | |
| **13** | The medical staff cooperates with the trainees | | | |
| **14** | The logistics services (medical supplies required for | | | |

| No. | Sentences | Agree | Neutral | Disagree |
|---|---|---|---|---|
| | training) required by the trainees are available in the training department | | | |
| | **The fifth theme: The impact of training programs** | | | |
| **1** | The objectives of the internship program mentioned above have been achieved | | | |
| **2** | Gained new practical skills during my training period | | | |
| **3** | Have the ability to participate in making the right decision with patients | | | |
| **4** | The application of the training program reduces the gap between theoretical and practical reality | | | |
| **5** | ability to apply most of the skills gained during the training program | | | |
| **6** | The internship program has given enough confidence in helping my colleagues in the field of work | | | |
| **7** | The internship program Help in choosing a medical specialty | | | |
| **8** | I found the information that I need for outstanding performance | | | |
| **9** | The internship program distinguished the trainee's performance. | | | |
| **10** | The internship program increased the self-confidence of the trainees. | | | |
| **11** | By joining the internship program, the role of the physician is understood in various health facilities. | | | |
| **12** | More awareness has become acquainted with the health system in the facilities of the Ministry of Health | | | |
| **13** | The internship program has helped develop the trainee's abilities and personal skills | | | |
| **14** | I find it difficult to integrate into the labor market | | | |
| **15** | The internship program allows trainees to familiarize themselves with the work systems of the various health facilities and procedures | | | |
| **16** | The internship program contributes to the ability of the trainee to communicate effectively with colleagues and the public | | | |
| **17** | Ability to work within the team and participate in decision making | | | |
| **18** | The internship program did not add any practical benefit | | | |
| **19** | Ability to withstand work under pressure | | | |

THE OPEN-ENDED QUESTIONS:

• What are the point of strengths at the internship program:

1……
2……
3……

• In your opinion what are the point of weaknesses in the internship program:

1……
2……
3……

• What is the opportunity/opportunities that have been used in the internship program?

1……
2……
3……

• In your opinion what are the most important challenges you faced during the internship program?

1……
2……
3……

• Proposals for Change in the Internship Program:

1……
2……
3……

• The most important skill acquired during the internship program:

1……
2……
3……

• The most important proposal you see to improve the performance of the internship program

1……
2……
3……

• Did you spend part of the internship program outside the Gaza?

Yes……. No……...

• In case of a yes, compared with the external internship program, the local internship program in the Gaza is considered.

Strong…… Moderate……. Weak……

• In your opinion, mention the best or lowest quality of the following items:

| No. | Item | Best quality | Lowest quality |
|---|---|---|---|
| 1 | Course | | |
| 3 | Training Center | | |

**Al-Quds University - Abu Dis (Faculty of Public Health)**

**Researcher / Ahmed Salah Al-Shorafa**

**Mobil number:0599602279**

**Annex (6) Focus group for intern doctors**

Dear colleagues / welcome to you all in this session (focus groups) to hear and know your opinions and recommendation regarding the evaluation of MI program at ministry of health in Gaza, which is core of my studies to obtain a master's degree in public health (health management), I am glad to sharing your opinion in the following questions.

1. How to evaluate your experience during medical internship program? And what is it like being an intern doctor?
2. What are your impressions of the role of GDHRD?
3. What you expected and whether your expectations were met or not?
4. After you experience the training. How to make training better, your advice?
5. From your point of view what are the positive and negative aspects of the management of the program
6. The finding indicates the perception about the role of the GDHRD domain was the lowest in the evaluation process. What do you think of the results?
7. The results showed that the program design domain was ranked second in the evaluation to what extent does it agree with this result? Explain your answer
8. The finding showed that the training program supports the diversity in training and exchange of experience, what is your comment about this result?
9. The results showed that the training burden falls on the trainee more than the imposed system?
10. The results showed that the trainees are graduates of foreign countries that are more satisfied with the program, then the Arab countries and graduates from home?
11. Would you like to talk about anything else?

**Thanks for your cooperation**

**Annex (7) KII questions**

How do you see the role of the general directorate of human resource development in managing the MI program؟

1. How do you evaluate cooperation and relationship with the general directorate of human resource development?
2. How to see the medical internship program in terms of design and content?
3. How to evaluate the training environment in the training centers and how could be improved?
4. There is satisfaction with the effect of training do you agree with this result?
5. How do you explain the satisfaction of trainees in small centers rather than large centers?
6. The results showed that the training burden on the trainee more than the system imposed on him do you agree with this result?
7. The results showed that the presence of a physician within the family has less satisfaction with the training program what is your comment?
8. Trainees from foreign countries are higher satisfied then from Arab countries and while locally graduated less satisfied with the program, how could you explain this result?
9. Your recommendations for improving the training program.

**Annex (8) KII participants**

| **Organization** | **No. of key informant involvement** | **position** |
|---|---|---|
| GDHRD | **2** | General directorate of human resource development and The director of continuous education and training department |
| Faculty of medicine | **1** | Dean of the faculty of medicine in an Islamic university in Gaza. |
| hospitals | **1** | Training Coordinator Shifa medical complex |
| PHC | **1** | General directorate of Primary health center and the Training Coordinator In PHC centers |

**Annex (9) An official letter of approval from Helsinki Committee in the Gaza Strip**

المجلس الفلسطيني للبحث الصحي
Palestinian Health Research Council

تعزيز النظام الصحي الفلسطيني من خلال مأسسة استخدام المعلومات البحثية في صنع القرار

Developing the Palestinian health system through institutionalizing the use of information in decision making

## Helsinki Committee
For Ethical Approval

**Date: 04/06/2018** **Number:** PHRC/HC/403/18

**Name:** Ahmed Salah Alshorafa الاسم:

We would like to inform you that the committee had discussed the proposal of your study about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:

**Evaluation of Medical Internship Program at the Ministry of Health in Gaza**

The committee has decided to approve the above mentioned research. Approval number PHRC/HC/403/18 in its meeting on 04/06/2018

و قد قررت الموافقة على البحث المذكور عاليه بالرقم والتاريخ المذكوران عاليه

**Signature**

**Member** **Member**

**Chairman**

**Genral Conditions:-**

1. Valid for 2 years from the date of approval.
2. It is necessary to notify the committee of any change in the approved study protocol.
3. The committee appreciates receiving a copy of your final research when completed.

**Specific Conditions:-**

E-Mail:pal.phrc@gmail.com

Gaza - Palestine غزة - فلسطين
شارع النصر - مفترق العيون

## Annex (10) Universities Approval

Al-Quds University
Jerusalem
School of Public Health

جامعة القدس
القدس
كلية الصحة العامة

التاريخ:2018/12/23

حضرة الدكتور/ رامي العبادلة المحترم
مدير عام تنمية القوى البشرية–وزارة الصحة

تحية طيبة وبعد،،،

الموضوع: مساعدة الطالب أحمد الشرفا

نشكر لكم دعمكم الدائم لمسيرة العلم والتعليم وخصوصاً دعم كلية الصحة العامة وطلابها، ونود أعلامكم بأن الطالب المذكور أعلاه سيقوم بعمل بحث كمتطلب للحصول على درجة الماجستير في الصحة العامة–مسار الإدارة الصحية بعنوان:

***"Evaluation of the Medical Internship Program at the Ministry of Health in the Gaza Strip"***

وعليه نرجو التكرم بالموافقة على تسهيل مهمة الطالب في إنجاز هذا البحث حيث سيقوم بجمع البيانات من دائرة تنمية القوى البشرية ومراكز التدريب التابعة لوزارة الصحة، علماً بأن العينة المستهدفة للدراسة أطباء الامتياز.

و اقبلوا فائق التحية و الاحترام،،،

د. بسام أبو حميد
منسق عام برامج الصحة العامة
فرع غزة

نسخة:
- الملف

Jerusalem Branch/Telefax 02-2799234
Gaza Branch/Telefax 08-2644220 -2644210
P.O. box 51000 Jerusalem

فرع القدس / تلفاكس 02-2799234
فرع غزة / تلفاكس 08-2644210-264420
ص.ب. 51000 القدس

## Annex (11) Administrative Approval

State of Palestine
Ministry of health

دولة فلسطين
وزارة الصحة

التاريخ:08/01/2019
رقم المراسلة 375905

السيد : رامي عيد سليمان العبادله المحترم

مدير عام بالوزارة /الإدارة العامة لتنمية القوى البشرية – /وزارة الصحة

السلام عليكم ,,,

الموضوع/ تسهيل مهمة الباحث// أحمد الشرفا

التفاصيل //
بخصوص الموضوع أعلاه، يرجي تسهيل مهمة الباحث/ أحمد صلاح الشرفا
الملتحق ببرنامج ماجستير الصحة العامة – مسار الإدارة الصحية – جامعة القدس أبوديس في إجراء بحث بعنوان:-
"Evaluation of Medical Internship Program at the Ministry of Health in Gaza"
حيث الباحث بحاجة لعقد مجموعه بؤرية وتعبئة استبانة من عدد من أطباء الامتياز في وزارة الصحة، وكذلك اجراء مقابلات معمقة مع عدد من المشرفين على برنامج امتياز الطب البشري، بما لا يتعارض مع مصلحة العمل وضمن أخلاقيات البحث العلمي، ودون تحمل الوزارة أي أعباء أو مسئولية.
وتفضلوا بقبول التحية والتقدير،،،
ملاحظة / تسهيل المهمة الخاص بالدراسة أعلاه صالح لمدة 3 أشهر من تاريخه.

محمد ابراهيم محمد السرساوي
مدير دائرة/الإدارة العامة لتنمية القوى البشرية –

التحويلات

■ محمد ابراهيم محمد السرساوي(مدير دائرة) ← رامي عيد سليمان العبادله(مدير عام بالوزارة) إجراءاتكم بالخصوص(08/01/2019)

Gaza Tel. (+970) 8-2846949 Fax. (+970) 8-2826295
غزة تلفون. (+970) 8-2846949 فاكس. (+970) 8-2826295

**Annex (12) List of arbitrators**

| | **Name** |
|---|---|
| 1. | Dr. Yehia Abed |
| 2. | Dr. Bassam Abuhamed |
| 3. | Dr. Fadel Naeem |
| 4. | Dr. Yosef Abu Elreesh |
| 5. | Dr. Naser Abu Shaban |
| 6. | Dr.Rami Alabadlla |
| 7. | Dr. Mohammed Alkashef |
| 8. | Dr. Mazen Alsaqq |
| 9. | Dr. Osamma Moamer |
| 10. | Dr.Raafat lubad |
| 11. | Dr.Randa Zaqout |
| 13. | Dr.Ayman Abu Mostafa |
| 14. | Mr. Jehad Okasha |

## Annex (13) Arabic translation for the Abstract

**العنوان: دراسة لتقييم برنامج الامتياز للطب البشرى في مرافق وزارة الصحة بغزة**

**إعداد: أحمد صلاح الشرفا**

**إشراف: د خميس الإسى**

**ملخص الدراسة**

المعرفة الطبية وطرق علاج المرض تتوسع بسرعة. يعد التعليم والتدريب عالي الجودة لمقدمي الرعاية الصحية مساهمين أساسيين في مواكبة هذه التحديات. التدريب الإلزامي (الامتياز) للطب البشري يعتبر برنامج تدريبي خاضع للإشراف والذي يستمر لمدة 12 شهرًا في مراكز تدريب معتمدة ، حيث يتم تدوير الأطباء المؤهلين حديثًا على الأقسام الطبية المختلفة قبل السماح لهم بتقديم الخدمات السريرية للمرضى كممارسين طبيين.

**الهدف من الدراسة**

تقييم برنامج التدريب الإلزامي (الامتياز) في المراكز الطبية التابعة لوزارة الصحة في غزة ، من أجل تقديم التوصيات التي تساهم في تحسين برنامج الامتياز للطب البشري والذي يمكن أن ينعكس بشكل إيجابي على نظام الرعاية الصحية والممارسة الطبية.

**منهجية الدراسة**

في هذه الدراسة تم استخدام التصميم الوصفي التحليلي المستعرض. شمل مجتمع الدراسة جميع الأطباء المتدربين الذين أنهوا برنامج التدريب الإلزامي (الامتياز) في الفترة ما بين 2017–2018 في غزة. استخدمنا مقاربة مثلثية تستخدم كل من الأدوات الكمية والنوعية.

تم جمع البيانات الكمية من خلال استبيان ذاتي الإدارة عبر الإنترنت. و البيانات النوعية م خلال ست مجموعات بؤرية للنقاش مع 50 مشاركا من مراكز التدريب المختلفة باستخدام استبيان مقابلة شبه منظم وخمس مقابلات رسمية مع مسؤولين عن التدريب الإلزامي. كان معدل الاستجابة 88.7 ٪ (353/285). كانت الموثوقية الكلية مرتفعة كرونباخ (ألفا= 0.961) . تم إدخال البيانات وتحليلها باستخدام الحزمة الإحصائية للعلوم الاجتماعية SPSS إصدار 23 للبيانات الكمية، حيث أجريت التوزيعات، الترددات والنسب المئوية، الجداول، كما حسبت النسب المئوية المتوسطة والعامة ، استخدم الباحث التحليل الاستدلالي لاختبار الدلالة الإحصائية للاختلافات. تم استخدام اختبار t مستقل ليعني درجات المتغير المستقل بفئتين مثل الجنس. تم استخدام اختبار تحليل التباين أحادي الاتجاه (ANOVA) لمقارنة الدرجات المتوسطة للمتغير المستقل بأكثر من خيارين مثل المحافظات لإيجاد العلاقات بين المتغيرات. واعتبرت قيمة P مساوية أو أقل من 0.05 ذات دلالة إحصائية ، مع فاصل الثقة من 95 ٪. واستخدمت التقنيات الموضوعية المفتوحة لتحليل البيانات النوعية.

**نتائج الدراسة:**

أظهرت النتائج أن 53.3٪ من المشاركين ذكور .وأن متوسط(SD) العمر بين المشاركين في الدراسة 25.7 سنة وبانحراف معياري (SD) (± 1.9) سنة. غالبية المشاركين كانوا من خريجي الجامعات المحلية (66.3%) بينما كان (29.1٪) من الدول العربية و (4.6٪) من بلدان أخرى.

بلغ إجمالي المتوسط المرجح لأبعاد الدراسة (66.44٪) لجميع محاور الدراسة. سجل محور أثر البرنامج التدريبي أعلى متوسط (78.52٪) ، يليه محور تصميم البرنامج التدريبي (66.48٪) ، ثم محور بيئة البرنامج التدريبي (66.17٪) ، يليه محور محتوى البرنامج التدريبي (62.46٪). بينما كان أدنى متوسط هو محور دور الإدارة العامة لتنمية الموارد البشرية (58.77٪).

أظهرت النتائج الثغرات التي تؤثر على برنامج التدريب الإلزامي (الامتياز) في غزة ، مثل توفير كتيب الدليل الإرشادي ، وبرامج التعريف بالبرنامج ، والإشراف الميداني في مراكز التدريب ، وأدوات التقييم.

بالإضافة إلى الحاجة لمزيد من التركيز على إكساب المزيد من المهارات السريرية و إدراج مواضيع مهمة مثل الجوانب القانونية في الممارسة الطبية، والتوثيق ، والتدقيق الطبي ، وما إلى ذلك من مواضيع... في محتوى البرنامج التدريبي.

من المشكلات الرئيسية التي أظهرتها النتائج والتي تؤثر سلبا على بيئة التدريب أنه لا يوجد مكان مناسب للمتدربين في مراكز التدريب سواء للراحة أو لحفظ المتعلقات الشخصية .

كما أظهرت تحديات أخرى تواجه الأطباء المتدربين في عدم وجود تعاون بين الطاقم الطبي إضافة للاكتظاظ بالمتدربين في بعض مراكز التدريب ، و كذلك نقص الإشراف الميداني ، وثقل عبء العمل ، وعدم وجود وصف وظيفي واضح.

أظهرت النتائج أنه توجد فروق ذات دلالة إحصائية بين محور محتوى البرنامج التدريبي ومحور بيئة البرنامج التدريبي و محور أثر البرنامج التدريبي والمحافظة (مكان السكن). بينما لم يكن هناك فرق ذات دلالة إحصائية مهمة مع المحاور الأخرى.

كما توجد فروق ذات دلالة إحصائية بين جميع محاور الدراسة باستثناء محور أثر البرنامج التدريبي ، ومكان (بلد) التخرج ، ($P < 0.05$). ومع ذلك ، لم يلاحظ أي فروق ذات دلالة إحصائية بين البيانات الاجتماعية والديموغرافية وبرنامج التدريب في جميع المحاور.

أظهرت النتائج أن معظم المشاركين الذين تلقوا جزءًا من فترة التدريب خارج غزة قيموا البرنامج التدريبي بمستوى متوسط بنسبة 43.4٪، وبنسبة ، 33.3 ٪ باعتبار أن البرنامج التدريبي قوى و بنسبة 23.3 ٪ أن البرنامج التدريبي ضعيف.

**الخلاصة**

تبين أن برنامج التدريب الإلزامي (الامتياز) للطب البشري يعاني من نقص في العديد من الجوانب مع وجود ثغرات في مجالات مختلفة مثل التوجيه والكتيب الإرشادي وأدوات التقييم والدورات العملية والإشراف التي يجب علاجها لكي يكون البرنامج التدريبي على الوجه الأمثل.

أوصت الدراسة أنه ينبغي لصانعي السياسات إيلاء المزيد من الاهتمام و بمزيد من الجهود في متابعة ومراقبة برنامج التدريب الإلزامي (الامتياز) للطب البشري لتعزيز البرنامج ، وبما ينعكس على تحسين جودة الخدمات الطبية.