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Factors Hindering the Implementation of Quality Improvement at the MoH-Gaza.

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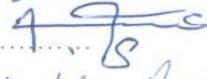
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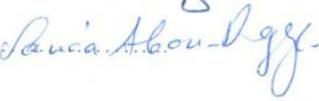
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Dedication

To my beloved parents, sisters and brothers believing in me, and to my wife and my kids; Saher, Mohammed, Salah El-Deen and Amro for their patience and understanding.

And

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

Mahmoud Mohammed Radwan

Declaration

I certify that this entire thesis submitted for the Degree of Master, is the result of my own work, except where otherwise acknowledged, and that this study (or any part of the same)has not been submitted for a higher degree or qualification to any other university or institution.

Signed ..………………

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Abstract

Quality has been identified as one of the key drivers of improved health outcomes and greater efficiency in health service delivery in developing countries. In a fragmented and inefficient health system like the Palestinian one, where resources are scarce and health problems are complex, the need for implementation of Quality Improvement (QI) is even more crucial than elsewhere. Little is known about the most influencing factors for impeding the implementation of QI at the Ministry of Health (MoH). This study aims to investigate the most perceived barrier factors to the successful implementation of QI at the MoH facilities.

The study employed a descriptive, analytical cross sectional design with a triangulated approach (quantitative and qualitative). Self-administered questionnaires and key informant interviews were used for data collection. A randomized multi stage stratified sampling was used to select the eligible healthcare providers working at the MoH in two medical complexes (Shifa in Gaza and Nasser in Khanyounis) and five PHC centers (level 4). The calculated sample size was 450, out of them, 397 responded and completed the questionnaires, with a response rate of 88.2%. The overall reliability coefficient for the study instrument was acceptable 0.787. Semi structured, face to face, audiotaped in-depth interviews were conducted with eight key informants as a second data collection instrument.

Findings revealed that the most perceived barrier factors to the implementation of QI were top management commitment (Mean=2.17), followed by organizational culture (Mean=2.29), leadership (Mean=2.33), health information system (Mean=2.48), human resources management (Mean=2.49), staff training (Mean=2.53), and staff engagement (Mean=2.57). Although the most common obstacle for the implementation of QI, mentioned by all key informants, was the lack of a strategic plan, majority of them reported the same obstacles elicited from quantitative data. However, the perception of healthcare providers reflected a limited implementation of QI with percentage of (25.1%). Such perception was widely concurred by the key informants. Participants working at hospitals and PHC centers revealed similar perception towards the barrier factors affecting the implementation of QI with statistically insignificant differences (P>0.05). The findings showed variation in the perceived barriers to the implementation of QI in reference to gender, specialties, and job positions (P<0.05). Pearson test showed a weak positive correlation between the implementation of QI and top management commitment, structure, leadership, human resource management, monitoring & supervision, staff engagement and training, health information system, financial support, and material resources.

The researcher recommends prioritizing the QI in the strategic plan as an approach to improve the performance and the provided healthcare services at the MoH facilities; in addition, strengthening the role of management and leadership through dissemination of quality culture, ensuring the resources, and investment in the training.

Table of Contents

List of Tables

List of Figures

List of Annexes

List of Abbreviations

ANC	Antenatal Care
ANOVA	Analysis of Variance
CQI	Continuous Quality Improvement
GDP	Gross Domestic Product
GS	Gaza Strip
HIS	Health Information System
HRM	Human Resource Management
IMR	Infant Mortality Rate
MMR	Maternal Mortality Ratio
MoH	Ministry of Health
NGOs	Non-Governmental Organizations
oPt	Occupied Palestinian Territory
PCBS	Palestinian Central Bureau for Statistics
PHC	Primary Health Care
PNA	Palestinian National Authority
PNGO	Palestinian Non-Governmental Organizations
QA	Quality Assurance
QC	Quality Control
QI	Quality Improvement
SD	Standard Deviation
SPSS	Statistical Package of Social Science
TQM	Total Quality Management
UNRWA	United Nations Relief and Works Agency
USAID	United States Agency for International development
WB	West Bank
WHO	World Health Organization

"Quality is never an accident, it is always the result of high intention, sincere effort, intelligent direction and skillful execution. It represents the wise choice of many alternatives." Willa Foster

Chapter 1

Introduction

1.1 Background

The health care and medical services are growing immensely due to a high influx of the private sector, changing disease patterns, medical tourism, and demographic variations. Development of new and advanced techniques,increased awareness on patient's safety, intensity of competition in healthcare market, and new generation of purchasers and providers have forced the health care institutions to improve the efficiency and introduce a consumer culture in their institutions for effective cost and quality of care (Lee et al., 2002; Rad, 2005; Short, 1995). The other reason behind this movement towards improving the efficiency and competitive advantages is the increasing complexity of health care institutions and the system in general (Lee et al., 2002; Short, 1995).

The World Health Organization (WHO) 2000 framework for strengthening health systems in developing countries identified quality as one of the key drivers of improved health outcomes and greater efficiency in health service delivery (leatherman et al., 2010). In fact, Quality Improvement (QI) of health care services is urgently needed in developing countries (Brown, 1995; Ovretveit, 2002; Peabody et al., 2006). The Joint Commission on Accreditation of Healthcare Organizations encourages organizations to use QI activities. However, the successful implementation is critical to the effectiveness of a QI initiative (Blumenthal & Kilo, 1998; Shortell et al., 1998). Ensuring the safety of patients and personnel and improving quality have become important objectives for national health systems in developed and developing countries alike, in response to research highlighting poor quality, increasing patient expectations, and media reports. There is a general belief, supported by growing research literature, that there are effective methods to improve quality and safety. Health care organizations are increasingly expected by governments, funders and patients to introduce quality management systems and outcome improvement strategies. Many health care managers and practitioners also believe that action should be taken, but are unsure of how to proceed, especially within resource constraints. (Øvretveit, 2003).

Early assumptions about the quality of health care were based on the premise that if you built the right infrastructure and provided the appropriate education and training for staff, quality outcomes would result (Balding, 2008; Nicholls et al., 2000; Wilson & Goldschmidt, 1995). It was believed that more of the resources or inputs would improve quality. However, it has been learned that increasing resources does not always guarantee their efficient use and consequently may not lead to improvements in quality (Massoud et al., 2001). In many cases quality can be improved by making changes to health care systems without necessarily increasing resources (Massoud, et al., 2001).

Although QI holds promise for improving quality of care, hospitals that adopt QI often struggle with its implementation (Ferlie & Shortell, 2001; Meyer et al., 2004; Shortell et al., 1998). There is little evidence of the success of these QI initiatives (Bigelow & Arndt, 1995; Burns et al., 1992; Horowitz et al., 1996). Meanwhile, the philosophy of improving quality showed limited success because it had not necessarily identified barriers to improvement or generated the support of workers who felt resistant to being evaluated (Massoud et al., 2001). Indeed, the literature strongly asserts that QI programs are unlikely to be effective unless they are fully implemented and become part of the standard operating routines of health care facilities (Blumenthal & Edwards, 1995; Blumenthal & Kilo, 1998; Shortell et al., 1998). However, QI implementation is demanding on individuals and organizations. It requires sustained leadership, extensive training and support, robust measurement and data systems, realigned incentives and human resources practices, and cultural receptivity to change (Institute of Medicine, 2001; Ferlie & Shortell, 2001; Meyer et al., 2004; Shortell et al., 1998).

1.2 Research Problem

Organizations beginning to implement a Continuous Quality Improvement (CQI) program should first identify any external or internal barriers to success (Solberg, 2007). There are ranges of barriers to successful implementation of CQI initiatives (Messner, 1998; Shortell et al., 1998; Solberg, 2007). It can be a long process (Enthoven et al., 2000; Messner, 1998) and be resource intensive (Counte & Meurer, 2001; Enthoven et al., 2000). Not all CQI initiatives succeed and occasionally when the barriers are significant or critical milestones are not met, the initiative may be

scrapped out of frustration, lack of progress or because the organization is too weakened to continue (Messner, 1998).

In a fragmented and inefficient health system like the Palestinian one (Abed, 2007; MoH, 2008), where resources are scarce and health problems are complex, it seems that implementation of QI is even more crucial than elsewhere. Since the signing of the Oslo Peace Accords and the establishment of the Palestinian National Authority (PNA) in 1994, reform activities have targeted various spheres, including the health sector (Giacaman et al., 2003). Several international aid and United Nation organizations have been involved, as well as local and international Non-Governmental Organizations (NGOs), with considerable financial and technical investments. Although important achievements have been made, it is not evident that the quality of care has improved (Giacaman et al., 2003). The Palestinian authority since 1994 has started a policy of quantitative growth in healthcare system in all aspects; nevertheless, there is no assurance of efficiency (Chemonics International, 2008).

The national inputs in to healthcare in Palestine appear to be relatively high. Health outcomes indicators for the Palestinian people are similar to those of other neighboring countries with similar economic status and spending remarkably less on their healthcare systems. There appears to be an over investment leading to outcomes that are normally achievable with less investment (Hamad, 2011). These countries appear to be investing less in health both in terms of per capita expenditure on health and in terms of percent of Gross Domestic Product (GDP). The Palestinian Central Bureau Statistics (PCBS) estimated the average of health expenditure per capita in Palestine was 165 US $ in 2008, and the estimated percentage of GDP spent on healthcare was 15.6% in 2008 (PCBS, 2011a) which is usually more than most middle-income countries which spend 4-5% of the GDP (PNGO, 2009). There appears to be a general consensus that Palestinians are obtaining low outputs and that the degree of waste in the health system is large and highly indicative of inefficiency of the system (Massoud, 1995; PNGO, 2009). This inefficiency is manifested in different features, for instance; misuse of antibiotics, overuse of medications, shopping-around among providers, ineffective referral systems, un-justified treatment abroad costs, and the extremely high percentage of personnel occupying managerial positions (Hamad, 2001).

Taking into account the quality of perspectives; the public, politicians and professionals in Palestine are discontent regarding the quality of healthcare (Abed, 2007). This public

discontent was shown through patients' low satisfaction with Palestinian healthcare system and generally, patients perceive the healthcare services in Palestine as inferior and seek care in Egypt, Jordan, Israel, and elsewhere (Abed, 2007). Patient satisfaction with private and NGOs services is higher than with the government sector, particularly in the last several years (Schoenbaum et al., 2005). Besides, there is some evidence indicating that the vast majority of Primary Health Care (PHC) patient's consultation time is less than five minutes that is unlikely to be sufficient to provide appropriate quality care (Abed, 2007). Such results emphasized the need to improve healthcare quality in respect to primary, secondary, and tertiary care and in all sectors of the health.

Interestingly, little is known about the most contributing factors for the impeding of QI implementation at the Ministry of Health (MoH) facilities. This study attempts to tackle this vague area and analyze the most perceived barriers for successful QI implementation at the MoH. This would contribute to raise and enrich the knowledge, and sensitize decision makers to design the target strategies and build the strategic plan that are effective and sustainable for QI.

1.3 Justification

After reviewing the available literature, it seems that past frameworks used to identify factors influencing the implementation of QI were not comprehensive and few studies presented a comprehensive framework to illustrate the dynamics of the factors that contribute to hinder the successful implementation of QI. This study tries to overcome the limitation of the previous studies by determining and analyzing the individual, organizational and infrastructural barriers of the QI implementation.

Few have examined the barriers and facilitators experienced by the health care providers particularly physicians, nurses, administrators, and other technicians at MoH facilities. Understanding their experiences and perceptions regarding the factors influencing the successful implementation of QI is potentially critical in reducing the variations.

This study strives to contribute to the body of the literature in providing a deep insight in understanding the barriers that prevent proper implementation of QI at the MoH facilities. It will bridge the gap between the ideal implementation of QI and its benefits

to the current reality of QI implementation and performance in the health care facilities. The results from this study could be used to improve the implementation of QI in other health care organization, as the barriers to implementation of QI will be better understood, subsequently allowing health care managers to deal with barriers in an appropriate manner. The identification of these barriers will also assist the health care planners and decision makers to target strategies that are effective and sustainable for QI and plan better for QI strategies that will avoid some of the problems identified by the research into the implementation of successful QI initiatives .This study may also lay a foundation for future QI research in Palestine.

1.4 Aim of the study

The overall aim is to assess the factors hindering the successful implementation of QI within MoH facilities in Gaza governorates, and provide suggestions for corrective measures with the vision of improving the quality of healthcare services.

1.5 Objectives

- To explore the organizational, individual, and infrastructural factors hindering the implementation of QI.
- To examine the variations among MoH staff in perceiving the barriers to the implementation of QI.
- To test the association between the implementation of QI and the barriers for QI.
- To develop recommendations to enable decision makers to plan and set strategies for the implementation of QI at the MoH facilities.

1.6 Research Questions

1. What are the main organizational barriers to the implementation of QI at Gaza MoH facilities?
2. What are the main individual barriers to the implementation of QI at Gaza MoH facilities?
3. What are the main infrastructural barriers to the implementation of QI at Gaza MoH facilities?

4. Are there differences among MoH staff in perceiving the barriers of QI implementation?

5. Are there differences among MoH staff working at the hospitals and PHCs in perceiving the barriers of QI implementation?

6. What is the status of QI implementation within MoH facilities?

7. Are there associations between the implementation of QI and the organizational, individual, and infrastructural factors hindering the implementation of QI?

8. Which suggestions could be recommended in order to improve the quality of healthcare in MoH?

1.7 Context of the study

Health is an elusive concept that is hard to precisely define or even to measure (Boyd, 2000). It is also meaningless to discuss it away from its contextual factors and determinants including economic situation, poverty levels, education, peace and security equity, women empowerment and safe and healthy environment (WHO, 1998). All these determinants of health are negatively affected by the imposed siege on Gaza and have resulted in the increase of vulnerability among Palestinians. The demographic, socioeconomic, and political situations may force us to provide health services by specific way to suit these situations. In addition, the current health status and health care system context will be also discussed with particular focus on the implementation of QI in MoH Gaza.

1.7.1 Demographic, Political, and Socio-Economical context

Palestine constitutes the southwestern part of a huge geographical unity in the eastern part of Arab world, which is Belad-El Sham. In addition to Palestine, Belad El-Sham contains Lebanon, Syria, and Jordan. Palestine used to have common borders with these countries, in addition to Egypt. Palestinian region stretches from Ras Al-Nakoura in the north to Rafah in the south. The all area of Palestine is about 27.000 km^2, including Tabariya, El-Hoola lakes, and half of the area of Dead Sea. Now Palestine is limited to two geographically separated area, Gaza Strip (GS), and West Bank (WB), the total of both areas is 6020 km^2, which represents 22% of historical Palestine. The majority of Palestinians were forcefully expelled from their land by the Israelis during the 1948 war, whereas from the 26,323 $km^{2,}$ land area of the historical Palestine only WB and GS remained unoccupied (Passia, 2008). The suffering of Palestinians

6

continued as these parts were occupied by the Israelis in 1967 and since that the term "occupied Palestinian territory" (oPt) is used by the United Nations for these parts of Palestine (Giacaman et al., 2009). The GS is a narrow band of land, constitutes 6,2% of total area of oPt land, located in the south of Palestine, and lying on the coast of the Mediterranean Sea (Annex1) . It is one of the most densely populated areas in the world with 1.6 million inhabitants living on a 365 km^2, small area (PCBS, 2009).

Recent demographic reports indicate that the population density in the GS is around 4279 inhabitants per one square kilometer in 2010 (PCBS, 2011b). According to the PCBS, the total number of the Palestinian population residing in the GS by the end of the year 2010 is 1,561,906; the majority of them (70%) are refugees (PCBS, 2011b). The life expectancy for males in GS is around 70 years; 72.5 for females (PCBS, 2011b). Moreover, age structure in the GS is similar to that in many developing countries, where nearly half of the total population is under 15 years old (20% in UK). Children under 5 years old represent around 18%, women at reproductive age representing around 22.5% and elderly representing around 2.4% of the total population. Dependence ratio is estimated at more than 80.5 for WB/GS with higher ratio in GS (PCBS, 2010).

The crude birth rate in the GS in 2010 is 37.1 and 36.9 in 2009 (PCBS, 2011b) and the population growth rate is (3.3). Nevertheless, the crude death rate in the GS is (4) per 1000 population; should the present rate of population increase continue, the GS population would almost double every 15-20 years. The Palestinian population in GS has one of the highest fertility rates in the region (5.3), compared to (3.5) in Egypt, (3) in Lebanon, (2.4) in Israel and (3.2) in Turkey (PCBS, 2010). Such demographic characters of the GS population that is characterized by high population density, high growth rate and young generation increase the burden on the Palestinian healthcare system (Hamad, 2011). This in turn requires careful planning from policy makers to invest this high percentage of young population to develop a strong economy rather than leaving them for unplanned and unclear future with possible aggravated unemployment and poverty levels. Thus the importance of being an efficient health care system is her more important than elsewhere.

After signing the Oslo Accords in 1993, the PNA was established with partial autonomy and control over some, but not all, areas of the WB and GS. While

the PNA assumed control of all civilian administrations, including health, it did not have, and still does not have, sovereignty over borders, movement of goods and people, control over land, water and energy sources. In other words, Israel still holds the overall sovereignty over the oPt and its economy (PNGO, 2009). However, the political and socio-economic developments since establishing the PNA have not been very promising. On the one hand, Israel continued and even accelerated settlements building and aggravated its security measures, while the PNA failed to achieve major achievements in the quality of life of population due to lack of sovereignty and other shortcomings (Giacaman et al., 2009). The situation was further escalated during the siege that Israel has intensified on the GS since June 2007, which have greatly harmed Gaza's health system that had struggled even before these events. According to World Food Program (WFP) (2008), the international donor assistance was cut, closure periods, particularly for the GS, were increased and the per capita GDP has declined by half of its value in 1999. The population of the GS was more severely affected as the majority of labor force was dependent on jobs inside Israel and due to repeated closures the number of worker crossing to Israel was gradually decreasing till it reached the zero level (PNGO, 2009). The unemployment rate jumped to 33% in the GS in 2007 compared with 19% in the WB for the same period (World Bank, 2007).

In June 2007, a tight siege was imposed on the GS by the Israelis and the lack of adequate funding specially after cessation of international funds aids threatens to negatively affect the health care delivery and public health programs (Abed, 2007; WHO, 2006a). Much of donors and providers shifted progressively attention from developmental projects to crisis management (Abed, 2007). The Israeli government stopped movement of goods and people in and out of GS (except the entry of food and some medicines). The premature economy collapsed due to lack of raw materials, fuel, and export opportunities. People in GS were practically imprisoned and impoverished (PNGO, 2009). Unemployment and poverty levels continued increasing. In 2009, unemployment rate in GS was estimated by 37%, poverty by 76.9% and deep poverty by 69% (PCBS, 2009). The deterioration of the humanitarian situation in GS reached its peak in December 2008 during the Israeli war on GS that resulted in destruction of infrastructure, hundreds of killed and thousands of injured civilians, suspension or interruption of essential services such as educational and primary health care services (PNGO, 2009). The quality of health care has been further affected by deterioration in

the functionality of medical equipment due to the lack of maintenance and spare parts, as well as by shortages of drugs and medical supplies (WHO, 2009). Around 30% of vital medical equipment was lacking (PNGO, 2009). About 38% of essential drugs and 23% of disposable were out of stock in GS in early 2011(WHO, 2011). Another recent assessment report conducted by WHO/UNDP to determine to what extent the MoH estate is fit for purpose in terms of its physical condition and capacity, found that around 65% of the hospitals and 50% of the PHCs are inadequate for provision of quality of healthcare services (WHO & UNDP, 2011).

All these facts create long-term adverse effects on physical and psychological wellbeing of the Palestinians that will increase the challenges, as poverty is usually associated with the increased burden of diseases (WHO, 2000b).

1.7.2 Health Status Context:

The reported figures of the major health status indicators such as Infant Mortality Rate (IMR), Under-five Mortality Rate (UFMR) or Maternal Mortality Ratio (MMR) are misleading and significantly vary according to reporting sources and compared to other countries at a similar level of economic development. The Palestinian population's overall health status outcomes are relatively good partially due to the strong performance on most basic public health and PHC functions (PNGO, 2009). The GS is going through what is called epidemiological transition where, non-communicable diseases including heart diseases, cancer, hypertension and cardiovascular diseases and diabetes mellitus, are gradually replacing the traditional enemies of infectious diseases as the leading causes of death. Recent health reports (MoH, 2009) indicate that in 2008, only 4.7% of all deaths were reported due to infectious diseases. Instead, the leading causes of death are chronic conditions, namely heart diseases (19.9%), cancer (8.8%), cerebro-vascular conditions (%7.5) and hypertension (4.9%). In addition, all kinds of accidents (i.e., trauma including war injuries) accounted for 20% of deaths.

As one of the most sensitive health indicators, IMR experienced gradual decrease over the years as it fell from 200 per 1000 live births in 1945 to only 24 in the year 2000 (Abdul Rahim et al., 2009; Giacaman et al., 2009). However, it was clear in both studies that these improvements have declined in the 1990s and since 2000 a slight

increase was reported to 27.6 in 2006 (Abdul Rahim et al., 2009). The discrepancy in figures was clear when the later was compared with that of the family health survey conducted by (PCBS, 2006) which revealed a rate of 25.6 per 1000 live births. According to MoH annual report, the IMR in 2009 was 21.5/1000 live births (MoH, 2011). To sum up, the most frequently reported estimation of IMR is around 20-22/1,000 live births (4.2in Australia, 3.7 in Austria, 2.6 in Japan, 15.7 in Mexico ,20 in Turkey, 50 in Egypt and 21 in Jordan) (Abdul Rahim et al., 2009; PNGO, 2009). This is higher than what is expected in the Palestinian context as the National Health Plan, 1999-2003, states that the goal is to reduce IMR to 15/1,000 live births. Around 90% of infants' deaths occurred at hospitals and/or health centers, and around 74% of infants' deaths occur in the first 28 days after delivery (MoH, 2010). The main leading causes of death among neonates were mainly resulted from prematurity related conditions, respiratory conditions, sepsis, congenital anomalies and others (MoH, 2010). Although IMR is relatively good in comparison to the countries living with similar socioeconomic conditions, it could be logic to poses important questions about the program of antenatal care and quality of care provided in the obstetrics and neonatal units.

Giacaman et al., (2009) suggested that this slowdown of health achievements is an indication of health disparities or deteriorating conditions. According to United Nations Population Fund (UNFPA) (2009), lack of access to health services, poor infrastructure conditions in maternity departments particularly in the GS and recurrent emergency situations were also reported as possible reasons for this negative trend. The researcher claims that the used strategies in dealing with mother and child health neither respond to the standardized measures nor to the different demographic, epidemiological and nutritional transitions in the Palestinian society and still mainly focus on the prevention of communicable diseases in form of broad vaccination coverage. These strategies need to consider more other important aspects such as effective antenatal and postnatal care, compliance with diagnostic and therapeutic protocols, nutritional health of mothers, women education and empowerment to affect age of marriage and age of first pregnancy.

Obtaining reliable figures is much more problematic by the issue of maternal mortality; the second major indicator of the health status in Palestine. Misclassification of cause of death and under-reporting contribute to increasing the mass of uncertainty in this

regard. The MoH Medium Term Development Plan 2008 – 2010 avoided to mention any figures of this indicator due to contradiction of available estimates (MoH, 2008). WHO (2010) estimates it by 38 per 100,000 live births. According to the MoH annual report in 2009, the MMR was 36.6/100,000 live births (MoH, 2011).The leading causes of maternal deaths were pulmonary embolism (20%), heart diseases (20%), hemorrhage (16.7%) and septicemia (16.7%) (MoH & UNFPA, 2010). However, the vast majority of pregnant women receive some Ante Natal Care (ANC), but the timing of ANC visits is not always appropriate; nearly half of women did not receive ANC services within their first trimester and 7.9% had not benefited from ANC services until the last trimester (Maram, 2004). High-risk pregnancy represents around 20% of the total newly registered pregnant women and its management lacks adequate standardization (MoH, 2010). Perinatal and neonatal deaths were most often due to illnesses associated with mothers' complications of pregnancy and labor and delivery such as poor quality ANC, unsafe delivery, congenital anomalies, premature labor, un-hygienic conditions, sepsis, and lack of standardized supportive technology and practices (Hamad, 2011). The latter author suggests that the level of postnatal care remains at an unacceptable level in terms of coverage, quality of the services and the frequency of visits. He highlighted some quality issues in mother and child services such as; lack of standardized appropriate practices, low compliance with reproductive and neonatal health protocols, shortage of skilled health providers, poor clinical management, weak infrastructure, bad physical conditions, and shortage of needed equipment, disposables and drugs.

As aforementioned, epidemiological and nutritional transitions have been noticed in the Palestinian society in the last decades. Traditional communicable diseases were replaced with non-communicable diseases such as heart diseases, cerebrovascular diseases and diabetes mellitus as main reasons of mortality and morbidity (MoH, 2006). Changes in last decades in the housing and hygiene conditions, improved basic health services such as universal vaccination coverage and improved educational and general health awareness levels have led to declining mortalities due to communicable diseases to less than 10% of all mortalities (Husseini et al., 2009). This also has led to increasing life expectancies to over 70 years that consequently contributed to increasing prevalence of chronic diseases. PCBS family health survey (2006) showed that about 10% of all surveyed were suffering from at least one chronic disease with higher prevalence in the WB than in the GS. As other societies in similar

transition, Palestinians face multiple burdens of diseases. Non-communicable diseases are increasing together or to some extent as a result of increasing obesity rates and coexist with poverty related diseases such as malnutrition, anemia and waterborne diseases. It is alarming that over 13% of children in GS are stunted and more than 40% are anemic (Near East Council of Churches, 2009; PCBS, 2006). Stress related conditions are the third major disease burden that resulted from deteriorating political and socioeconomic conditions described above and also contribute to increasing rates of chronic and nutritional diseases. Despite these facts, there is still no clear vision by policy makers how to manage these problems properly as there are no effective surveillance systems for the most major chronic diseases nor clear strategies for their prevention. Most efforts are focused towards the high-risk approach in form of introducing complicated surgical interventions that till now remained less effective and inefficient.

Compared to their high expenditures for health 15.6% of GDP (PCBS, 2011a) which is higher than other developing countries: for instance, Egypt, Saudi Arabia, Jordan, and Lebanon which spent 6.4%, 3.3%, 8.5% and 8.8% respectively (WHO, 2010), Palestinians should receive extraordinary high quality health services (MoH, 2010). In fact, Palestinians have a well-functioning child vaccination system with over 95% coverage, also more than 95% of pregnant women receive some kind of antenatal care and deliver in health facilities (Mataria et al., 2009). But that was not reflected in better health status of the population than other neighboring countries with less expenditure for health, which makes inefficiency as one of the most important characteristics of the Palestinian health care system.

1.7.3 Healthcare System in Palestine

The Palestinian health care system is extraordinarily fragmented and complex in structure (Abed, 2007; MoH, 2008). The health services are delivered by four health providers, the governmental sector led by MoH, NGOs, UNRWA, and Private Sectors (profit and nonprofit) (MoH, 2010). MoH provides about 70% of all healthcare services while at the same time is that the largest provider of health services. As mandated in the Palestinian public health law it serves as the principal administrative and regulatory body for the healthcare services which manages public health services and delivery of primary, secondary, and some tertiary care in government facilities (Palestinian

legislative Council, 2004). UNRWA as the second major component of the health system plays an important role in health services delivery, providing free of charge PHC and purchasing secondary and tertiary services for the registered Palestinian refugees in GS. The NGOs sector also plays a vital role in complementing the work of the MoH in providing tertiary services, sometimes expensive services that are usually not provided by the MoH. NGOs play an important role in promoting accessibility to vulnerable and marginalized people and contribute to bridging the gaps and the perceived inequalities in the health system. In particular, NGOs play an important role in the provision of mother and child and rehabilitative services in GS through different organizations (Yaghi, 2009).

The structure of the Palestinian health care system, which is composed of several service providers, has its positive and negative attributes. On one hand, the diversification of health services has enabled the health system to better face the challenges brought on by the political situation. It has, on the other hand led to duplication and scattering of services provided that resulted in a burden on the young state of limited resources (Chemonics International, 2008). Therefore, it is suggested to review and evaluate the performance of the different health care providers and to promote partnership and integration of comprehensive services among all providers.

Given the health financing which is a key determinant of health system performance in terms of equity, efficiency, and quality (Chemonics International, 2008), the financing of governmental health sector in Palestine is highly not self-sustainable and derived from taxes, health insurance premiums, co-payments, out-of-pocket payments, international aid and grants as well as non-governmental resources. MoH expenditure had increased by 39% between 2000 and 2005. While in 2007, MoH spending reached about $US 223 million and 315 $ million in 2008 (MoH, 2010). Staff salaries accounted for 48% of the budget and other operational spending (mainly referrals abroad and medicines and supplies 52%). The cost of treatment abroad (outside of MoH facilities) was around US$ 111 million (MoH, 2011). The increased expenditures on salaries and special treatment referrals left very little for critical operating and pharmaceutical needs leading to serious quality concerns (Chemonics International, 2008).

MoH is the major employer of health professionals. During 2009, MoH- Gaza has 9,499 employees, out of them 21.2% (2,014) have left the work and Refrained (MoH,

2011). The current employees are distributed as; 20% physicians, 25% nurses, 23.6% administrative staff, and 31.4% other categories. The total number of human resources in hospitals is 5,649 employees, out of them 1395 are physicians and 1832 are nurses (MoH, 2011). Total number of human resources in PHC is 2,257 employees out of them 446 are physicians and 460 are nurses (MoH, 2011).

Unplanned growth of human resources is one of the main challenges facing the health sector (Chemonics International, 2008). There are shortages in many specialties, such as nurses, midwives, nutritionists, and dieticians, and surpluses in others such as dentists and pharmacists. In addition to shortages and surpluses in professional staff, the irrational distribution of human resources has a profound effect on availability and accessibility of health services for the public (Abed, 2007). There is also a high rate of qualified and trained staff moving from the governmental sector to work in the private sector, NGOs and/or to outside the Palestinian territories; consequently the 'brain drain' has an effect on the quality of service provided by the governmental health service (Chemonics International, 2008).

The PHC is considered the cornerstone of health services. Promotion and preventive strategies are high priority for reducing burden of diseases. In 2009, the total number of PHC centers in the GS is 54 (9 in North Gaza, 15 in Gaza,15 in Mid Zone, 10 in Khan Younis and 5 in Rafah) in comparison with 43 centers in 2000 (MoH, 2011). The average ratio of persons per center was 9,732. Of centers (29) are classified as level 2, (16) centers as level 3, and (9) as level 4 (MoH, 2011). PHC centers provide various services like, vaccination, school health, oral and dental healthcare for schoolchildren, antenatal care, family planning services, lab. and x-ray services, and community mental healthcare (MoH, 2011).

The secondary healthcare is provided by the governmental, NGOs, military medical services and private sectors. There are 29 hospitals in GS with 2769 bed. MoH owned 13 of them with 1937 bed in 2010, compared to 1499 bed in 2005 (MoH, 2011). MoH operates 57.1 % of the hospital beds through its 13 hospitals distributed all over Gaza governorates. The NGOs is the second provider where its beds represent 31.6% of the total hospital beds. Private hospitals, Police Medical Services and UNRWA operate 8.6%, 1.4% and 1.3% of the hospital beds respectively (MoH, 2008). During 2009, the occupancy rate in the MoH hospitals was 69.0% compared to 75.8% in 2005, the average length of was 2.9 days, while the bed turnover rate was 89 times (MoH, 2011).

1.7.4 Quality Improvement in Palestine

The history of quality in Palestine started since 1994, during the establishment of the Central Unit for Quality of Healthcare. It had a role of developing a strategic and an operational plan for healthcare in Palestine as well, to introduce and institutionalize the use of modern QI methods in the Palestinian health system. The QI project within MoH expanded the effort of the Central Unit for Quality of Healthcare in 1995. The QI project succeeded in operating many QI initiatives, particularly training hundreds of health professionals. The project had also been discontinued due to lack of organizational support and communication within MoH among WB and GS (Abed, 2007; El Telbani, 2008; Schoenbaum et al., 2005).

From 1996 up till 2005, the World Bank supported the QI project in Palestine through two programs: Education, Health Rehabilitation Program and the Health System Development program I. The QI project has achieved satisfactory results at the level of clinical and non-clinical dimension. Other achievements were the development of 10 clinical practice guidelines for the most chronic disease, development of an essential drug list, development of clinical laboratory manual, and computerization of selected systems in the different health facilities (Abed, 2007; El Telbani, 2008; Schoenbaum et al., 2005).

Other achievements through MARAM project, funded by USAID, were the triage system in five referral hospitals, equipping and upgrading of many PHCs and hospitals, training of 850 staff in antenatal and post-partum care, obstetrical care, developing of nutrition guidelines and infection control guidelines for PHC, and developing the Integrated Management of Childhood Illnesses (IMCI) (Abed, 2007; El Telbani, 2008; Schoenbaum et al., 2005).

Based on MoH reports, in 2009, the MoH Gaza established the QI unit as part of the MoH structure. The unit developed its objectives consistent with MoH vision to improve the quality of health services within MoH facilities. Development of QI and infection control committees in hospitals and PHCs were done whereas developing the national standards seems to be a major challenge for QI efforts.

However, Abed (2007) suggested that QI achievements were focused on the inputs of quality without actual improvement in the process of delivering quality services and even with a resulting outcome. Lack of a supervision, monitoring, evaluation system is

possible barriers for introducing standardization to the healthcare system (Abed, 2007). This was supported by Chemonics International (2008) who proposed that the lack of national quality standards, clinical practice guidelines, supportive supervision and supportive supervision tools or quality based financial incentives as a major QI challenge in Palestinian health sector.

1.8 Operational definition

Quality:

Proper performance in accordance to standards, of interventions that are known to be safe, that are affordable to the society in question, and have the ability to produce an impact on mortality, morbidity, disability and malnutrition (WHO, 2006b).

Quality of healthcare:

The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (Institute of Medicine, 1990).

Continuous Quality Improvement (CQI):

A philosophy of continual improvement of the processes associated with providing a good or service that meets or exceeds customer expectations (Shortell et al., 1998).

Clinical Quality Improvement:

An interdisciplinary process designed to raise the standards of the delivery of preventive, diagnostic, therapeutic, and rehabilitative measures in order to maintain, restore or improve health outcomes of individuals and populations (Institute of medicine, 2001).

Quality Assurance (QA):

The process and sub-processes of planning for quality, the development of objectives and goals for quality, setting standards of quality, communicating standards to users, developing indicators, setting thresholds and collecting data to monitor compliance with standards (Al-Assaf, 1994).

Quality Improvement (QI):

The process and sub-processes of reducing variation of performance or variation from standards in order to achieve a better outcome for the organization's customers (Al-Assaf, 1994).

Quality Control (QC):

The detection and elimination of some of the components of the final product or the actual final product if it does not meet the required standard (Sallis, 1993).

Total Quality Management (TQM):

A management system that is in continuous change, with comprehensive values, techniques and tools with the overall goal of this system are to increase customer satisfaction with minimal resources (Hellensten & Klefso, 2000)

Standards:

A desired state of affairs or an ideal to aim for. They act as both measurement tools for assessing quality against previously agreed criteria, and also as devices to improve the quality of service delivery (Renwick & Harvey, 1990).

QI Implementation:

A systematic implementation of well planned activities aimed to improve the provided services through the QI team.

The Barrier Factor:

Any factor that can restricts, impedes or stops the progress of any process or makes it difficult for someone to achieve something.

Chapter (2)

Literature Review

In this chapter the researcher illustrates the study's conceptual framework with orientation to the reported domains about the investigated topic in the body of the literature. Then, a comprehensive review of the studied literature is presented regarding QI concepts and values, its components, contextual determinants, improvement strategies, the current situation in GS as well as other countries.

2.1 Conceptual framework

The framework of this study was designed by the researcher based on the extensive review of the available literature about the influencing factors for the implementation of QI. This study considers 14 influencing factors, which are the most commonly identified in the literature as barriers of QI. These factors can be classified into organizational, individual, and infrastructural factors. The study will explore the perspectives of these factors and the correlation between these factors as an independent variables and the implementation of QI as a dependent variable (Fig. 2.1).

The following self-developed framework describes the main aspects and components of the study. This framework has considered the main factors influencing the implementation of QI. Each factor has been categorized to sub factors. The organizational factors comprise; culture, structure, top management commitment, leadership, monitoring & supervision, standards/protocols, and human resource management & incentives. The individual factors comprise; staff engagement, staff training, staff attitude, staff time & workload. The infrastructural factors include; financial support, material resources, and health information system.

The framework also addresses selected demographic characteristics such as gender, age, qualification, specialization, position, salary, work setting and experience.

Implementation of Quality Improvement

- Gender
- Age
- Qualification
- Specialization
- Job Position
- Salary
- Experience

Socio-Demographic Characteristics

Organizational Factors

- Structure
- Culture
- Top Management Commitment
- Leadership
- Monitoring & Supervision
- Standards/Protocols
- Human Resource Management & Incentives

Individual Factors

- Staff Engagement
- Staff Training
- Staff Attitude
- Staff Time & Workload

Infrastructural Factors

- Financial Support
- Material Resources
- Health Information System

Figure 2.1: Conceptual Framework- Developed by the researcher

2.2 Quality concepts and definitions:

Quality has been defined differently by different authors, practitioners as well as academics, with everyone having their own version of definition depending on their beliefs and perceptions about quality informed by their experiences. Experts of the quality management disciplines such as Garvin, Juran, Crosby, Deming, and Ishikawa defined the concept of quality in different ways. Crosby in 1984 defined quality as conformance to requirements or specifications; in his approach, he explicitly highlights the importance of people and organizational change with special reference to cultural change and commitment of top management to quality (Crosby, 1984). Deming's (1988) point of view is that quality is a predictable degree of uniformity and dependability, at low cost and suited to the market. His reference point is from a statistical point of view that deals with the reduction in the variation of the product using statistical process control. He also came up with 14 quality concepts that were the explanation to the development of TQM concepts (Dilber et al., 2005). Juran and Gryna (1988) defined quality as fitness for use. They pay more attention on a trilogy of quality planning, quality control, and QI (Dilber et al., 2005). Another definition of quality is that it is achieved when an organization's processes and activities are designed and implemented in order to continuously meet the organization's customers' needs and expectations (Al-Assaf, 1996). Worth pointing that the quality of a product or service refers not only to the manner in which the product or service is made and delivered, it also relates to the perception of the degree to which the product or service meets the customer's expectations (Reed & Montgomery, 1996; Reeves & Bednar, 1993). They further stated that quality has no specific meaning unless related to a specific function and or object. This statement presents quality as a conditional and somewhat subjective attribute.

2.2.1 Quality Concept in Islam:

The philosophical context of quality in Islam stems from the holy Qur'an and the Sunnah (the teachings of Mohammad, the Prophet of Islam, Peace be upon him). Islamic principles reinforce and enhance quality in management which is a substantial element in achieving Itqan (a quality-related term used by Prophet Mohammad to denote continually improving performance by the parties in any task activity or function). Allah asks us to achieve Itqan, as indicated in Sura Al-Namel (The Ants),

aya 38:" It is the nature of Allah to perfect everything". Prophet Mohammad asked us to act responsibly in holding any position or performing our jobs and duties. In his saying "All of you are providers of care and everybody is responsible to do it right for his subordinates and dependents" (Saheeh Bukhari and Muslim), he explains that we all have responsibilities, whether in the family, in the workplace or in society as a whole. These responsibilities towards ourselves and others mean that we should be honest, transparent. Moreover, Prophet Mohammad asked us to have excellence in his saying, "Do the best as if you see Allah, if not, Allah sees you." (Saheeh Bukhari). (Hammoudeh, 2012).

Shura is a quality term used in the Qur'an in Sura Al-Shura (The Consultation), aya 88: "And their matters are attained by consultation between them". Shura emphasizes teamwork and cohesion among members of the group in Islamic society, for the purpose of empowering groups and society. The philosophy of Hisba as a quality control system has its roots in the holy Qur'an. Many ayas urge people to be righteous and to lead by example in order to perpetuate a culture of righteousness. In aya 44 of Sura Al-Baqara (The (Cow), Allah says: "Do you order people to be pious while forgetting yourselves, even though you read the book? Do you not understand?". The purpose of Al-Hisba is to prevent any deviation (Islamic standards being the reference point) from a required standard, adding value and hindering corruption so as to safeguard individuals and society as a whole from tort or any obstacles that might challenge the ultimate goal of improving the quality of life for everyone. It covers all aspects of life: industry, agriculture, trade and any other services. In early Islam, during Prophet Mohammad's times, state governors employed the Al-Muhtaseb to exercise control over state institutions and departments. The Al-Muhtaseb was an independent inspector and controller assigned by the caliph (ruler of the state in Islam). He had full authority to control the performance of state organizations and workers in any field, and had the right to take appropriate disciplinary actions. The Al-Muhtaseb must have initiative, honesty and the ability to influence people to follow the right path. A code of ethics requires the Al-Muhtaseb to take an oath by which he commits himself to follow Islamic standards, ethics and norms. Moreover, he must uphold the rights of the people, the state and the council of state or government. The oath also required the Al-Muhtaseb to perform his work with honesty and loyalty and in cooperation with the organization, as if he were a staff member. In terms of demeanour, he must be friendly

and amicable in his leadership, communications and directions, and avoid cruel behavior under any circumstances (Hammoudeh, 2012).

It could be concluded that the principle of TQM today as an evolution of the Hisba and Dawaween systems that existed centuries ago in the Arab and Islamic worlds. Moreover, when Islamic civilization was at its height, not only were systematic documentation and purposeful quality control clearly in evidence; they were also closely aligned with a culture that promoted the retrieval, sharing and indeed creation of knowledge.

2.2.2 Quality perspectives and concepts in healthcare:

The health staff, health manager, clients and communities groups may expect different things from health services. Research findings shows that patients want services that are delivered on time by friendly and respectful staff, are safe, produce positive result and that they can afford, provide them with adequate information about their condition and treatment, or give privacy (Bannerman et al., 2002). While healthcare providers can provide quality care if have; adequate knowledge and skills, enough resources, staff, drugs, supplies, equipment and transport etc., safe and clean workplace, or is well paid and rewarded for good work. The healthcare managers see quality as managing efficiently the resources of the health facility, health staff achieving set targets, health staff being regularly supported and supervised, having adequate and competent staff to provide care, staff being disciplined, and providing enough resources for work (Bannermanet al., 2002).

Quality of care is that care that meets an integrated view of both the required and acceptable clinical standards while meeting the requirements and perception of the patients as well as the communities they live in. Ovretviet (2000) adds on to say that, quality in health care has to be considered from three dimensions. The first dimension involves patient's quality, which is concerned with whether the service provided , renders to the patient what they want and desire. The second is the professional quality, which is a professional's view of whether the services rendered by the professional as assessed by the professional health board and the practitioner meets the need of the patient and whether the personnel correctly selected and carried out procedures which are believed to be necessary to meet patient's needs. The third is the organizational management quality dimension. This determines whether there is efficient and

productive use of resources in order to meet the patients need without wastage and within the directives set by higher authority (Ovretviet, 2000).

Quality in health care has also been variously defined. An early paper by Moss and Garside (1995) suggested that quality in health care is usually understood in terms of clinical quality and an implicit distinction is drawn between managerial and clinical activity. Clinicians may define quality as doing the right things, for the right people, at the right time, and doing them right first time (Donaldson & Gray, 1998). According to Wilson (2000), quality is an abstract concept and a number of aspects of care need to be considered to gain a picture of quality in health care. These include technical quality, doing the right thing and doing it right; interpersonal quality, how the patient felt they had been treated; and costs of care (Wilson, 2000). Quality of care is also viewed in terms of structure, process and outcome. Structure refers to the setting in which the care takes place, which includes the qualifications of staff, organizational structure, and policies and operation of programs. Process measures refer to the technical management of illness but also include rehabilitation, prevention, and continuity of care and aspects of patient physician interaction. Outcome of care is defined relative to recovery, restoration of function and survival (Larson & Muller, 2001; Schattner & Markey, 2001). However, the Institute of Medicine formulated the most durable and widely cited definition of healthcare quality as the "degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." (Institute of Medicine, 1990).

2.3 Quality Control, Quality Assurance, (QI), and Total Quality Management:

Edwards Deming, Joseph Juran, and Philip Crosby introduced QI, as a multi-step approach to improving outcomes, into business organizations in the 1970s (Cokins, 2006). Since that time, QI has been known by many different names that have been used interchangeably, i.e., Total Quality Management (TQM), Total Quality Improvement, and Continuous Quality Improvement (CQI). However, QI, CQI, and TQM are the names used interchangeably throughout this study.

The definitions of both quality and TQM have been debated for many years by quality management researchers and a number of definitions have emerged. However, there is still no universal agreement on these definitions. The ongoing debate over the various

definitions of quality and their implications for manufacturing and service industries is further complicated by the lack of a widely accepted definition and an implementation framework for TQM. Most of the contemporary TQM literature derives from the quality management principles and philosophies of quality pioneers such as Feigenbaum, Crosby, Deming and Juran. These authors have been critical in the evolution of TQM frameworks with their principles. Crosby (1979) recommended a 14-step program to improve quality through defect prevention. Deming (1986) prescribed 14 points encompassing the organizational requirements for effective quality management. Feigenbaum (1991) supported the integration of statistical techniques and methodology into the processes of firms to implement company-wide total quality control. He also prescribed 10 fundamental benchmarks as the keys to the successful implementation of total quality control in the 1990s. Although there are varying views on the difference between total quality control and TQM, they basically cover many of the same concepts to the extent that they could probably be used interchangeably Boaden (1997). Juran and Gryna (1988) believed that QI could be attained by applying the breakthrough concept (an improvement to unprecedented levels of performance) to problems of quality. Juran (1989) offered a framework for TQM that involves three sets of processes including quality planning, QI and QC.

Originally, TQM was introduced as a quality management model or philosophy with methods pioneered by quality management experts such as Deming, Juran, Crosby and Oacklands as a way to eliminate waste in the use of resources. It mandated the involvement of all members of the organization to work towards a common goal. As a result, it provided an ultimate way of quality thinking shared by all personnel in the organization to meet the customers specified requirements (Adinolfi, 2003). However, TQM means the organization's culture is defined and supports the consistent attainment of customer satisfaction through an integrated system of tools, techniques, and training. This involves the continuous improvement of organizational processes, resulting in high-quality products and services (Partlow, 1996).

TQM was originated after QC and QA as a measure to improve quality. Sallis (1993) differentiates the three quality ideas that are QC, QA, and TQM. According to him, QC is the oldest concept that involves the detection and elimination of some of the components of the final product or the actual final product if it does not meet the required standard. This was not an ideal concept, because the production of defective

product is quite costly, as this product is manufactured close to completion or until it is completed, yet it is not functional and it will be either discarded or reworked. This gave rise to the concept of QA. However, QA is done before, during and after the production of the product or the service to prevent faults from occurring, to make sure that the product is made to meet a predetermined specification. With QA, there are individuals that are designated to check the quality of the product throughout. Although this process is effective, it is costly in terms of work force and time. TQM extended these concepts and involved the customer by creating a quality culture where the main aim of every employee is to delight the customer. In addition, it provided the structure and the environment where the employees work, enables them to delight the customers (Sallis, 1993).

Although QA and QI are sometimes used interchangeably in the literature, and their definitions sometimes overlap, QA is defined by Kelly (1994) as a static concept that maps out improvements from one point in time to another and measures the result. QA involves a planned and systematic approach to monitoring and assessing the care provided or the service being delivered. It identifies opportunities for improvement and provides a mechanism through which action can be taken to make these improvements (Kelly, 1994). QA assesses performance against a predetermined standard, and if met, does not necessarily ensure that standard is revised to improve performance. The CQI expands on the QA concept, containing within it QA activities such as accreditation. CQI works at improving quality, however, by continually revising the standards against which quality is assessed (Kelly, 1994). It aims to improve the quality of service not just for the accreditation review but to continually strive towards best practice. As well as including QA inspections, CQI works at improving the organizational structures and procedures for ongoing review and evaluation and the continuing improvement of all facets of health care service delivered by an organization (Kelly, 1994).

Based on Al-Assaf and Sheikh (2004), QA as distinguished from QI or TQM, is the process and sub-processes of planning for quality, the development of objectives and goals for quality, setting standards of quality, communicating standards to users, developing indicators, setting thresholds and collecting data to monitor compliance with set standards. QA is associated with the standardization of health care. It supports the theory that by standardizing care, there will be less chance of error and therefore a better opportunity for controlling patient care outcome (Al-Assaf, 1994). QI can be

defined as the process and sub processes of reducing variation of performance or variation from standards in order to achieve a better outcome for the organization's customers (Al-Assaf & Sheikh, 2004).

On the other hand, the widespread diffusion of QI practices into hospitals did not occur until the late 1980s and early 1990s, almost a decade after most businesses began to use QI to improve performance, increase customer satisfaction, increase efficiency, empower teams, and reduce costs (Carman et al., 1996; Shortell et al., 1998). The definition of QI in the medical literature focuses on improving patient outcomes. Most quality initiatives in the health care field focus on improving productivity, cost-effectiveness, market share, employee morale, and efficiencies of processes. With improved process efficiencies there are less rework, fewer mistakes, fewer delays, snags and better use of equipment or materials, which in turn increases productivity and therefore enables the hospitals to become more competitive, with better chances of survival and more jobs provided (Brashier et al., 1996).

It seems through the analysis of these definitions that they are not very different. For instance, most emphasize concepts including continuous improvement, customer focus, human resource management and process management.

2.4 Value of QI in healthcare:

As health care organizations are striving to provide health care services with limited resources, it is obvious that adopting QI will not only help the government with the financial crisis, but also it will overcome many urgent problems that are a challenge to the health care system. Numerous investigations have emphasized the need to improve quality of care (McGlynn et al., 2003). In response, healthcare organizations worldwide have established QI programs (Stetler et al., 2008). Naveh (2005) shows that increasing the number of QI activities included in the QI program brings about more improvement events.

Although studies have demonstrated that there are obstacles to the successful implementation of QI, and the outcomes of the implementation are not always as desired, numerous studies have demonstrated that implementing QI results in ongoing improvement by identifying areas of weaknesses and correcting them as required (Huq, 1996; Swinehart & Green, 1995; Yang & Christian, 2003). The improvements will

enhance the quality of health care delivery while in the same breath; it will cut the cost by increasing health care efficiency and effectiveness. In the advent of rising medical cost and limited resources organizations that implement QI will be able to achieve both efficiency and effectiveness; this means to provide better quality health care with the resources that the organization already has or with even less. In addition, quality systems have become an important part of modern health care (Blumenthal, 1996). They can provide data to show that care providers work with the most effective and efficient methods (Wagner et al., 2006). Thus, they can help departments do the right things and do the things right.

This was supported by a number of studies showed that QI has been positively associated with performance outcomes, such as financial performance and profitability, as well as with human outcomes, including employee satisfaction, employee relations, and customer satisfaction (Hansson, 2003; Rad, 2005). Weiner et al. cited a number of commentators who believe that the systematic application of industrial QI methods can result in a significant improvement in clinical processes and medical care outcomes (Weiner et al., 1997). In their 1998 work, Shortell et al., (1998) suggested that evidence exist that quality and outcomes of care can be improved through CQI. Indeed, the literature on CQI has produced some evidence based on nonrandomized studies that its clinical application can improve patient outcomes, whilst reducing costs (Shortell et al., 1998). Salman reported improved quality of care of patients with diabetes and patients with hypertension as a result of a QI process in a rural health clinic (Salman, 2005). According to Ferris, et al., (2001) who proposed that a substantial improvements in the care of children can be made through QI. In their study on the use of CQI to improve patient outcomes in the area of vascular access planning, Barton, et al., (1998) found that the CQI process can be used successfully to positively impact patient outcomes through process improvements with complex critical problems. Reporting on the findings from a quantitative research study of quality management in the Irish healthcare sector, Ennis and Harrington suggested that the impact from the introduction of quality is promising with improved patient satisfaction and improved quality awareness being the most predominant factors (Ennis & Harrington, 1999).

A study conducted within the primary care in UK found a range of positive impacts at a practical level, including consistency of standards and data collection, better service provision, better teamwork at a multi-disciplinary level, a reflective and proactive

culture, and better treated patients (Swerissen, 2005). CQI methods have also been used successfully by a multidisciplinary team; including nursing staff, physicians ,health records personnel and a CQI facilitator; to achieve a sustained reduction in induction rates in a Canadian maternity hospital (Harris et al., 2000).

Eagle, et al., (2005) reported that the use of a rapid cycle QI effort across 33 hospitals leading to indirect process measures of care that translated into improved patient outcomes. The same study suggested the QI effort is associated with a lower 30-day and one-year mortality rate among Medicare beneficiaries hospitalized for an acute myocardial infarction. In evaluation of an initiative implementing 60 CQI projects in French hospitals, it was found that feedback indicated that the CQI initiative met with some success despite some difficulties, especially during the initial stages (Maguerez, 2001). Examples of some success are found also in the developing world. Mohammadi, et al., (2007) reported that most respondents to an evaluation survey reported positive impacts on organizational culture, work efficiency and quality of services, following the implementation of a formal QI program in a teaching hospital affiliated with the Tehran University of Medical Sciences. QI Collaboratives seem to play a key part in current strategies focused on accelerating improvement, but may have only modest effects on outcomes, at best. Further knowledge of the basic component effectiveness, cost effectiveness, and success factors of QI Collaboratives is crucial to determine their value (Schouten et al., 2008).

2.5 Organizational Factors

2.5.1 Organizational culture:

Culture is defined as the values, beliefs, and norms of an organization that shape its behavior (Shortell et al., 1995b). Culture has a powerful effect on an organization and which is recognized by many as the 'glue' that holds an organization together and allows it to adapt to changing environments. Organization quality culture is defined as the shared belief, values, norm and behavior of the organization that may contribute to the organization wide quality management implementation (Lee et al., 2002). Mahmood et al., (2006) pointed out that quality culture is the design of arrangement items or behavior ,which has been adopted by a society (team, group) as the admitted way of solving problems. An organization with a quality culture can be defined as one

having clear values and beliefs that foster total quality behavior (Mahmood et al., 2006).

The right organization culture is essential to achieving a successful approach that creates good hospital outcomes and effective QI (Boan & Funderburk, 2003). A supportive organizational culture is often cited as a key component of successful QI initiatives in a variety of industries, including healthcare. Macleod and Baxter (2001) note the difficulty in implementing successful TQM initiatives; four of five initiatives fail, despite the consensus that such efforts are essential to long-term organizational success. Aspects of organizational culture (e.g., resistance to change, ingrained attitudes, lack of understanding, and poor communication) are often mentioned as attributing factors of these failures (Macleod & Baxter, 2001). Several authors (Chenoweth & Kilstoff, 2002; Weick & Sutcliffe, 2001) assert that QI generally has had modest success because of the failure to address organizational culture. Besides, quality culture is the main component in a successful TQM plan. Exchanging the culture of an organization is an important condition for successful implementation of TQM. Many experts such as Crosby, Deming, and Juran identified the role of quality culture as a suitable and important factor for organizations. There are many elements that define quality culture namely leadership, training, team working, supplier quality management, process management, etc. Prajogo et al., (2005) identified the factors of TQM as customer focus, human resource management, management leadership, continuous improvement, and teamwork that are the concept of flexible cultures in implementing successful cultures.

Based on the underlying values of organizational members, Quinn and Kimberly (1984) defined four cultural types: a group culture based on norms and values associated with affiliation, teamwork,and participation; a developmental culture based on risk-taking innovation and change; a hierarchical culture reflecting the values and norms associated with bureaucracy and compliance with organizational mandates, enforced roles, rules, and regulations; and a rational culture emphasizing efficiency and achievement.

A majority examined associations between group, developmental, rational, and/or hierarchical culture and QI success. Organizational culture was identified as one of the most important influencing factors in the implementation of TQM. Ababaneh (2010) showed that the correlation between the hierarchical, supportive, and innovative

organizational culture with QI practices was significantly strong positive. Meanwhile, organization having group or developmental culture associated with affiliation, teamwork, assumption of change, and risk taking demonstrates a positive correlation with the degree of TQM implementation, producing precisely the opposite results compared with a hierarchical culture (Berlowitz et al., 2003; Carman et al., 1996; Parker et al., 1999; Rad, 2006; Shortell et al., 2004; Shortell et al., 1995b; Wakefield et al., 2001). Shortell and colleagues also examined the cultural balance among these four culture types and found that cultural balance was significantly associated with the number of changes made by QI teams (extent of implementation of QI activities) (Shortell et al., 2004). Rondeau and Wagar (2002) focused their examination of culture on learning-oriented values and found that the implementation of formal TQM/CQI required a supportive learning culture.

The professionals in the Palestinian healthcare system begin their work enthusiastically, and over the time are affected by the organizational climate resulting in deteriorated performance (Walfare, 2008). A study conducted at Naser hospital to evaluate the effects of some organizational cultural factors on the preparedness of crisis management (Eshbear, 2007). The study found that culture of innovation for problem solving was insufficient and the employee's participation in decision-making needs more strengthening. Decision making in the Palestinian health care system is highly influenced by cultural related factors. The predominant culture of centralized command and control resulted in a limited individual's participation in decision-making process (Hamad, 2009a). Appointments, promotion or rewarding are widely subjected to connections, political affiliation or personal favors (Hamad, 2009a). Values of the collaborative teamwork in the provision of healthcare services are lacking (Hamad, 2011).

2.5.2 Organizational structure:

Investopedia defined organizational structure as the explicit and implicit institutional rules and policies designed to provide a structure where various work roles and responsibilities are delegated, controlled and coordinated (Investopedia, n.d.). It also determines how information flows from level to level within the organization. Organizational structure in the healthcare facilities comprises essential components such as establishment of quality-related councils and committees, empowerment of care

providers, and investments in new technology and infrastructure (Carroll et al., 2007). These structural components were described by (Shortell et al., 1995a) as infrastructural entities supporting CQI activities; for example, coordinating committees, councils, task forces, work groups, and reporting mechanisms. Kennedy et al., (1999) and Lee et al., (2002) reported the structural factors to include the presence of QI physicians and nurses, TQM or QA department supported with fulltime TQM staff and budget allocation for TQM. Through investigating the role of structural factors, Kennedy et al., (1999) established a significant association between quality management process and the presence of QI physicians and nurses. This result contradicted the finding of Lee et al., (2002) who revealed no significant association between the presence of TQM department, TQM full staff, budget allocation and success in implementation of TQM. However, it is believed that hospitals equipped with a CQI department or staff responsible for CQI found it much easier to conduct CQI activities (Melum, 1992). In addition, allocating an independent budget for CQI activities and running a reward system for excellent CQI performance are all important structural factors.

Many hospitals are structured in elements of the functional-hierarchical fashion (Huq & Martin, 2000). Successful TQM program fits perfectly in an organization that exhibit a structure that is more flat and with minimum layers of management. This was supported through the finding of that decentralization will improve employees' involvement, communication and participation in decision-making and will reduce power distance within organization (Rad, 2005). However, TQM success is obtained through a shift from the ordinary traditional approach to the new TQM way of life (Rad, 2005; Schein, 2004; Soltani et al., 2003). This structural change enables, empowers and motivates employees; it installs new values ,beliefs and assumptions to the new ways of thinking; and breaks down the communication barriers and fosters the creativity of the workforce. Badrick and Preston (2001) concluded relatively similar results while they support the findings of a hierarchical structure is a barrier to TQM success and that organizations with the professional bureaucracy type, related at the same time to a large public hospital, are less successful in TQM implementation compared with the private and machine bureaucracy type. For TQM programs to be successful, it requires decentralization of power to be considered and form part of the quality culture.

Most organizations within the Palestinian health system lack clearly defined organizational structures, which regulate the relationships among the people and departments involved (PNGO, 2009). The strongly centralized and control systems with limited employees involvement in the decision making process are obvious (Hamad, 2009a). Even providing job description or conducting an effective performance appraisal are still lacking, only 25% of employees have job description (Hamad, 2001). Decision-making is judgmental rather than research or data based (PNGO, 2009). Such practices could enhance the feelings of lack of accountability, loss of motivation, lack of team work, loss of valuing professionalism and increased communication gaps.

2.5.3 Top Management Commitment:

Top management commitment can be defined as direct participation by the highest level executives in a specific and critically important aspect or program of an organization. In quality management it includes; setting up and serving on a quality committee, formulating and establishing quality policies and objectives, providing resources and training, overseeing implementation at all levels of the organization, and evaluating and revising the policy in light of results achieved (Busincss Dictionary, n.d.). TQM initiative programs, always emphasizes on the importance of top management as the main driver of TQM activities. Deming pointed out that most quality problems are caused by management and the system they create and operate (Minjoon et al., 2006). On the other hand, Pearson et al., (1995) pointed out that managerial leaderships require management at all level should shift their role from authoritarian decision maker to coaching facilitator.

The role of senior management in promoting and sustaining QI efforts has been recognized since the earliest efforts to embed CQI in healthcare (Bradley et al., 2003). It has been found that commitment of top management is highlighted as a critical factor for successful QI efforts (Ahire et al., 1996; Ali, 1997; Zairi & Youssef, 1995). More recent studies concurred the previous one and found that top management commitment and support is the most important enabling practice for implementing TQM in the health care institutions (François et al., 2008; Gross et al., 2008; Li et al., 2001; Pun, 2001; Sureshchandar et al., 2001; Zhang et al., 2000). Other elements of top management commitment include administrative support, upper management involvement, support of upper level management, and leadership for quality. The top

management acts as a coach to teach and to influence the subordinate (Yang & Christian, 2003). It is generally accepted that any bottom-up quality action might fail without support from the hospital top management (Rad, 2005). Furthermore, top management allows and encourages everyone to contribute in the organization by encouraging them, and emphasize on process improvement rather than individual accountability (Yang & Christian, 2003). It can be concluded that top management commitment is a prerequisite for effective and successful TQM implementation.

Similarly, industrial experts in quality; Deming, Juran, and Crosby have highlighted the critical role of management in effecting an organizational shift from QC to QI. The literature, both in general industry and in healthcare, suggests that the role of senior management is paramount to successful QI efforts (Bradley et al., 2005). Consistent with this premise, several studies have reported 'unclear vision' as primary reasons for failed QI team efforts (Bradley et al., 2005).

Further, the top management of the hospitals determines an appropriate organization culture, vision, and quality policy. Managers of healthcare organizations should determine objectives, and set specific measurable goals to satisfy customer expectations and improve their organizations' performance. On the other hand, the top management must provide adequate resources to the implementation of quality efforts (Dilber et al., 2005). It is also of outmost importance that top management provides an environment and facilitates the growth of everyone in the organization regardless of the level that they are in and the organization as a whole and ultimately to achieve customer satisfaction (Brashier et al., 1996; Huq, 2005).

Many of the defects in the Palestinian healthcare system could be attributed to the weakness in the role of the management practices in supporting the management systems and to the inappropriate leadership behaviors (Hamad, 2011). Managerial positions are valued as prestigious rewards and the management of the organization takes only little of the director's time and efforts and occupy a second grade of directors' personal interests (Massoud, 1995).

2.5.4 Leadership:

Leadership is defined as the process by which an individual determines direction, influences a group and directs it toward a specific goal or organizational mission (Nancy, 2007). Quality leadership is where quality principles become a basis for

guiding, empowering and supporting the constant pursuit of excellence by the employees throughout the organization (Feigenbaum, 2007). Since the modern quality revolution began in the 1980s, quality pioneers have repeatedly emphasized the importance of leadership for achieving organizational advances in quality (Greenberg & Baron, 2003). Organizational change is predicated on managerial leadership and support, and these elements are critical for successful implementation of QI. Deming considered leadership is being significant in shaping policies and behaviors required to produce high quality, reduce waste and bring about customer satisfaction (Sosik & Dionne, 1997). Leaders can be regarded as a driving force that powers the complex relationship in the implementation of TQM and plays a vital role in all the building block of TQM fundamental commitments. Meanwhile, the leadership determines an appropriate organization culture and play a role in organization cultural change, by guiding the process of change through analyzing the organizational need for change, isolating and eliminating invalid and dead structure and routines that hinders the effective implementation of TQM (Huq, 2005; Luria, 2008). However, in order for TQM to work, it is empirical that the top management assume a leadership role and commit strongly and actively to the implementation TQM (Alivi & Yasin, 2007; Bergman & Klefsjö, 2003; Hansson, 2003; Soltani, 2005; Yang & Christian, 2003).

The main tasks of leadership is to articulate and share the strategic vision of the organization, through setting specific objectives and measurable goals to satisfy customer requirements while giving direction and the sense of urgency of the implementation plan (Luria, 2008). It also plays a significant role in team work by serving and addressing team members , provide both task and emotional support to the team so that every member of the team feels that they worthy to be part of the team, and place at all times emphasis on motivating and convincing the employees . Previous research from the organizational psychology literature has identified personality characteristics that help distinguish successful business leaders. These include personal motivation, intelligence, action-oriented judgment, skill in dealing with people and capacity to motivate others (Osland et al., 2000). Successful leaders are able to harness these qualities to revitalize and transform their organizations. Transformational leaders are thought to achieve these goals by providing intellectual stimulation, individualized consideration and inspiration motivation to clearly communicate the importance of an organization's mission. Bergman and Klefsjö (2003) found that effective leadership empowers the employees and they give these employees a sense of pride and sense of

the belonging so that employees can take ownership of the organization. Dilber et al., (2005) emphasizes that leaders are also required to provide adequate resources to the implementation of quality efforts, these resources includes time, work force and appropriate funding to make the implementation of TQM successful. Those firms that have succeeded in making total quality work for them have been able to do so because of strong leadership (Juran, 1988).

In terms of quality, leadership involves efforts by senior leadership and management leading by example to integrate QI into the strategic planning process and throughout the entire organization and to promote quality values and QI techniques in work practices (Claver & Molina, 2003). Even though most of the leadership and quality theory refers to top management, the literature identified various sources of quality leadership, as from the top management, middle management, governance board or senior physicians, or from voluntary 'heroic individual' physicians or senior nurses . On the one hand, it is generally accepted that any bottom up quality action might fail without support from the hospital top management (Balding, 2005; Rad, 2005; Weiner et al., 1996). Contrary to that, studies also noted some successful instances of implementation initiated by a committed physician without the support of hospital management leadership (Kennedy et al., 1999; Wakefield et al., 2001). Meanwhile, Mills et al., (2003) found that leadership was not related to successful quality program initiation, as its support was more important in the diffusion of the initiative to other programs or departments.

McAlearney (2008) found that leadership development programs provide four important opportunities to improve quality and efficiency in healthcare: increasing the caliber of the workforce, enhancing efficiency in the organization's education and development activities, reducing turnover and related expenses, and focusing organizational attention on specific strategic priorities. In a randomized controlled trial, Berner and colleagues found significant improvement in one of five quality indicators examined among the group exposed to the physician opinion leader plus traditional QI versus QI methods alone (Berner et al., 2003). Previous studies examined CEOs' participation in TQM/CQI as a measure of top management leadership and consistently found positive associations with QI success (Alexander et al., 2006a; Weiner et al., 1997; Weiner et al., 2006).

Considering the Palestinian context, many management factors are affecting the efficiency and the effectiveness of health system in Palestine. At the top of these factors, is leadership in healthcare organizations (Massoud, 1995). The later author claimed that leadership was the single most important management issue leading to poor performance except for the case when healthcare delivery is led by a strong visionary leader who is fully devoted to lead the organization and who has the relevant skills and authority to do so. The Palestinian managers are selected on the base of being either highly qualified in clinical practice and/or having the proper political relations (Hamad, 2001; Massoud, 1995). They generally do not expose to any special training in management or leadership (Massoud, 1995).

2.5.5 Monitoring and Supervision:

Measurement is central to the concept of hospital QI. It provides a means to define what hospitals actually do, and to compare that with the original targets in order to identify opportunities for improvement (Show, 2003). The principal methods of measuring hospital performance are regulatory inspection, public satisfaction surveys, third-party assessment, and statistical indicators, most of which have never been tested rigorously (Show, 2003).

For more than 40 years ago, Donabedian proposed measuring the quality of health care by observing its structure, processes, and outcomes (Shaw, 2003). Structure measures the accessibility ,availability, and quality of resources, such as health insurance, bed capacity of a hospital, and number of nurses with advanced training. Process measures the delivery of health care services by clinicians and providers, such as using guidelines for care of diabetic patients . Outcome measures indicate the final result of health care and can be influenced by environmental and behavioral factors. Examples include mortality, patient satisfaction, and improved health status (Shaw, 2003).

Monitoring the health care quality makes hospital care more transparent for physicians, hospitals and patients. Furthermore, it provides information to target QI initiatives. Monitoring health care quality is impossible without the use of quality indicators. They create the basis for accountability, improvement ,prioritization and transparency in the health care system (Mainz, 2004).

Quality indicators aim to detect sub-optimal care either in structure, process or outcome, and can be used as a tool to guide the process of QI in health care

(Donabedian, 1980). It is worth mentioning that the use of performance indicators is still in general not well developed which minimizes the ability to monitor performance or hold managers accountable for their efficiency or quality of care (Hamad, 2009b). Although quality indicators are applied as a tool to guide the process of QI in healthcare, hospitals that adopt quality indicators are faced with problems concerning implementation (Bourne et al., 2002). In fact, successful implementation is critical to maximize the effect of quality indicators on the quality of care (Weiner et al., 2006). However, the implementation of quality indicators as a tool to assist QI requires effective communication strategies and the removal of hindrances (Davis & Taylor, 1997).

As a response, De Vos et al., (2010) explored the barriers to and facilitating factors for the implementation of quality indicators among healthcare professionals and managers of intensive care units. Behavior related barriers such as time constraints were most prominent, followed by barriers related to knowledge and attitude. The facilitating factor perceived as most important by intensivists was administrative support. On the other hand, not only are the indicators themselves often seen as flawed, but healthcare professionals also object that indicators are not useful because the local data on which they are based are often inaccurate, incomplete or out of date (Leatherman & Sutherland, 2003; Mannion & Goddard, 2003; Royal College of Physicians, 2006; Wilkinson et al., 2000).

Supervision is a key component of a quality monitoring system. The concept of supportive supervision is based on widely accepted quality management principles. It is an approach to that emphasizes mentoring, joint problem solving, and two-way communication between a supervisor and those being supervised (Engender Health, 1999). Evidence demonstrates that continuous implementation of supportive supervision generates sustained performance improvement (Marquez & Kean, 2002). Supportive supervision is one of the key mechanisms for institutionalizing CQI. It is the primary mean for maintaining a focus on the other two fundamentals of care to sustain service quality. The managerial approach of supportive supervision involving joint problem-solving, record review and observing clinical practice as consistently shown a moderate to marked effect in QI (Bosch & Garner, 2008; Rowe et al., 2005).

Although supervision is proven to be an effective tool for QI, its concepts are generally lacking in Palestinian governmental health facilities and mostly focused in to

detecting errors and blaming employees rather than providing coaching, support and training (PNGO, 2009). Additionally, supervisory tools such as checklists are mostly missing and if available not regularly used (PNGO, 2009). Similarly, Hamad (2011) suggested that the supervisory activities were mainly based on un-planned and unstructured visits without using any supervisory tools such as supervisory checklists. Such supervision is done for administrative rather than educative purposes (Hamad, 2011).

2.5.6 Standards / Protocols:

Standards specify a desired state of affairs or an ideal to aim for. They provide a means for determining whether such a state of affairs exists, or they provide a structure to assist people or organizations to reach it. In this way, quality standards act as both measurement tools for assessing quality against previously agreed criteria, and as devices to improve the quality of service delivery (Renwick & Harvey, 1990).

Clinical standards, clinical protocols, and clinical practice guidelines aim to bring care to a consistently higher level of quality and thereby improve patient outcomes by; reducing variability through standardization of many components of care delivery, and codifying the optimal or best clinical choices suggested by the evidence to date. As result of this process, the resources and costs of caring for that patient population could be substantially reduced (March, 2006). Beside the improved organizational efficiencies, their benefits improve the involvement of staff in identifying where improvements can be made, the ability to identify and meet specific patient needs, and the ability to survive in what has become a very competitive marketplace (McCoy, 1996).

It is worth pointing that the managers and policy makers have been keen to develop more systematized approaches to clinical work and to increase the degree of standardization and uniformity between practitioners, with the aim of increasing efficiency and performance (Davies & Harrison, 2003; Degeling et al., 2003; Degeling et al., 2001). However, clinicians and especially doctors, are relatively less enthusiastic about these moves towards greater codification and transparency of clinical practice (Degeling et al., 2001; Degeling et al., 2003; McNulty, 2003), and clinicians' attitudes towards clinical guidelines provide one illustration of this difference. There is a wealth of evidence that demonstrates limited awareness, support and use of clinical guidelines

by clinicians (Blendon et al., 2001; Foy et al., 2001; Grol & Buchan, 2006; Lane et al., 2001; Michie & Johnston, 2004; Richens et al., 2004). Many clinician look at clinical guidelines as lead to cook-book practice, reducing clinical freedom and flexibility, and devaluing clinical judgment (Hackett et al., 1999; Jorm & Kam, 2004; Welsby, 2002). Meanwhile, many attitudinal and behavioral barriers prevent physicians from adopting them (Cabana et al., 1999). Consequently, it remains uncertain how these clinical guidelines can best be implemented and used in clinical settings (Bero et al., 1998).

As response to such consequence, several studies examined specific factors that helped or hindered the implementation of protocols designed to improve quality of care for certain conditions. Bradley and colleagues found that organizational support for change was the most significant factor in successful implementation (Bradely et al., 2005). At the same point, Bateganya et al., (2009) described the barriers to implement national hospital standards in Uganda as technical assistance (under staffing, rewards, drugs, supplies), funding, and training as the main obstacles. In recent supportive studies that revealed many barriers to the successful implementation of clinical practice guidelines such as practice guidelines negative staff attitudes and beliefs, limited integration of guideline recommendations into organizational structures and processes, time ,workload, and resource constraints, and organizational and system level change, lack of financial incentives, fear of loss of autonomy due to standardization, lack of management support, lack of knowledge and skills, Lack of specialized training, resistance to multi-disciplinary team, and lack of learning culture (Forsner et al., 2010; Nzinga et al., 2009; Ploeg et al., 2007).

Adherence was also found to be more likely when guidelines were user-friendly and contained precise definitions of recommended performance (Michie & Lester, 2005). After completion of the active implementation phase, hospital guidelines should ideally maintain their successful adherence rate in order to sustain the deliverance of uniform and best care. Little is known about how to ensure long-term adherence to guidelines in a hospital setting. Some studies found that adherence could be maintained over several years, but external or internal factors influencing these results were not measured (Ray et al., 2005).

The Palestinian healthcare providers are trained in different countries and are exposed to different systems (over 120 countries, 600 universities). The administrative and technical instructions, policies, guidelines, and standards are either lacking or

incomplete (Hamad, 2001; Hamad, 2011). The latter author showed that the availability and adherence to reproductive health protocols was not appropriate; compliance was described as moderate by 50%, satisfactory by 33% or weak by 17% (Hamad, 2011). He recommended to adopt a strategy for promoting compliance with protocols based on the assuring accessibility of protocols, providing the effective training, and ensuring adequate monitoring. Another surprising study aimed to assess the compliance with infection prevention and control (IPC) practices in neonatal units, showed that most of respondents did not have a copy of IPC protocol, and most of them (73%) did not know about the existence of the Palestinian protocol (Awad, 2009).

2.5.7 Human Resources Management and Incentives:

In recent years, healthcare organizations have been urged to adopt a variety of new Human Resource Management (HRM) practices aimed at enhancing their efficiency and effectiveness. Within many health care systems worldwide, increased attention is being focused on HRM. Specifically, human resources are one of three principles of health system inputs, with the other two major inputs being physical capital and consumables (WHO, 2000a). It is responsible for the recruitment, selection, training, assessment, and rewarding of employees. Human resources, when pertaining to health care, can be defined as the different kinds of clinical and non-clinical staff responsible for public and individual health intervention (WHO, 2000a). As arguably the most important of the health system inputs, the performance and the benefits the system can deliver depend largely upon the knowledge, skills and motivation of those individuals responsible for delivering health services (WHO, 2000a). It is essential that human resources personnel consider the composition of the health workforce in terms of both skill categories and training levels (WHO, 2003). New options for the education and in-service training of health care workers are required to ensure that the workforce is aware of, as a properly trained and competent workforce is essential to any successful health care system (WHO, 2003).

The human resource professionals played a central role in creating and communicating the TQM vision of the organization (Palo & Padhi, 2005). HRM is important for TQM success in any sphere of activity (Daniel & Martı´nez, 2009). There is a consensus in the literature that highlighted the important role of HRM in implementing a TQM system in an organization (Aldakhilallah & Parente, 2002;

De Menezes & Wood, 2006; Alireza et al., 2011; Vouzas, 2007). The system of HRM practices that labels quality-oriented HRM system and that includes empowerment, job autonomy, communication, teamwork, planned training, development, reward and recognition based in the contributions of employees, is an important enabler of TQM implementation (Alireza et al., 2011; Oakland & Oakland, 2001). The alignment of human resources and quality policies, such as creating and communicating the TQM vision, preparing the organization and employees for TQM implementation and generating quality awareness among the employees across all levels, functions, and departments, should contribute to an increase organization performance (Palo & Padhi, 2005).

One of the main functions of the HRM is the recruitment. The successful recruitment and selection of employees with the proper knowledge, skills, abilities, and attitudes compatible with a TQM philosophy can be a driving force supporting continued program effectiveness (Ahmad & Schroeder, 2002). According to the same source, the goal of the recruitment and selection process should be to identify prospective employees who could work in teams, have problem solving aptitude and are forthcoming with ideas to improve processes or at least have values and behaviors consistent with the quality management philosophy. Consequently, organizations should recruit employees with good qualifications and the requisite skills and hence facilitate the implementation of TQM (Yang, 2006). Selection has to be orientated towards a more person-centered approach than a task-based selection; that is, organizational selection processes should be oriented to identifying individuals who possess quality-related competences (Rees & Doran, 2001). Empirical research showed that effort made during the recruitment and selection processes, looking for employees with behavior oriented to TQM, influences the procurement of TQM results (Ahmad & Schroeder, 2002).

Another crucial function of the HRM is the training and development, which have been recognized as essential to the implementation of TQM. One of Demings' 14 points was that all employees must be trained in QI techniques. Yang (2006) believed that training is vital to the internal diffusion of quality ideas and practices, as without it there is no solid foundation for a formal quality program. Employee training is fundamental for many TQM programs such as the adoption of new quality concepts, the set-up and practices of customer satisfaction systems, the use of statistical QC, or the

change of culture or QC circle (Yang, 2006). Empirical studies showed that the use of training and development programs is more common in organizations with ISO certification that those without it (Renuka & Venkateshwara, 2006).

Human resource professionals face many obstacles in their attempt to deliver high-quality health care to citizens. Some of these constraints include budgets, lack of congruence between different stakeholders' values, absenteeism rates, high rates of turnover and low morale of health personnel (Zurn et al., 2004). However, Shalaby (2009) reported that only 35% of the MoH-Gaza health facilities had human resource development strategies, and the orientation programs for the newly hired staff are rarely available or implemented in case there is any. Human resources functions seem to be impaired and rarely reflect strategic human resources planning. Career development is completely unlinked to individual's performance; therefore, performance based competition is completely absent (Hamad, 2009b).

Many health workers in developing countries are underpaid, poorly motivated and very dissatisfied (Zurn et al., 2004). However, and for organizations to implement a successful TQM initiative, they need to develop a formal reward and recognition system that encourages employee involvement, and supports teamwork. In most cases, leaders have the tendency to forget to motivate their staff. Recognition of employee's achievements is one of the most important factors to motivate employees. In cases where employees exhibit outstanding perforce, they expect that their contributions will be recognized or the top management will appreciate them (Ismail & Zaki, 2004). When they are recognized for the effort that they have put in QI initiative ,they become more involved and take ownership of the QI initiative. This was congruent with Kemp et al., (1997) who considered the recognition procedure as basic to increasing the involvement of all employees in the operation of the business. Many other authors highlight the importance of rewards and recognition in the TQM process (Dayton, 2001; Easton, 1998; Everett, 2002; Haksever, 1996; Li et al., 2001; Rao et al., 1999).

On the other hand changing physician behavior is a key to improving quality of care (Teleki et al., 2006). However, such change is notoriously difficult to achieve (Frey, 2008). Financial incentives have been suggested as a way to affect clinician behavior toward better quality care, though information on how best to design such programs and understanding of potential impacts is limited (Teleki et al., 2006). Pay for Performance programs are gaining currency at all levels of the health system as a QI

initiative, with the hypothesis that money will change behavior (Teleki et al., 2006). This hypothesis is contingent on physician engagement and one study reported by Teleki found that physicians exposed to financial incentives were not engaged and did not change their behavior in response and nearly three quarters of physicians did not believe that financial incentives would have such an effect (Teleki et al., 2006).

As such, financial incentives alone are unlikely to be a magic bullet to improve quality of care. On the other hand, and despite limited evaluations of incentive schemes (McGovern et al., 2008; Teleki et al., 2006) ,a recent study of chronic disease care carried out in New York suggested that financial incentives for primary care physicians did lead to improvements in the objective quality of care measures. (McGovern et al., 2008). This was consistent with Rodriguez et al., (2009) who revealed a significant improvement in patient care experiences after implementation of performance-based financial incentives. Gosfield argues that much of the focus on compensation and revenue for physicians is not directly about money. Rather, it is about the loss of time in their lives and how that affects their ability to provide high quality care (Gosfield & Reinertsen, 2008). A systematic literature review for the available published studies (17 eligible studies) between1980 and 2005 was carried out to assess the effect of explicit financial incentives for improved performance on measures of health care quality. Of these, seven studies found partial or positive effects of financial incentives on measures of quality, although effect sizes of some studies were small. In two studies, incentives resulted in a statistically significant improvement in the measure of quality of care (Petersen et al., 2006).

To conclude, it could be worth mentioning that the use of financial incentives to reward measured performance has gained recent enthusiastic support. The results of several recent studies examining the effectiveness of pay for performance in comparison to other QI activities (such as public reporting and quality-improvement registries) are also mixed, and further studies are needed to determine their role in QI initiatives (Glickman et al., 2007; Lindenauer et al., 2007).

2.6 Individual factors

2.6.1 Staff Engagement:

Although top management is responsible and is a key driver of QI initiatives, they are not the only people that should be familiar with QI. All other employees should be familiar with QI. Quality is not just management responsibility, it is recommended that everyone in the organization should fully participate, be involved and take responsibility for quality or else QI will not even get off the ground (Huq & Martin, 2000). A lack of involvement, in contrast, hinders staff from highlighting obvious problem areas or identifying improvements. Different authors argue that teamwork is another method of getting employee involvement and satisfaction. This is because team's collective effort is better than the individual effort given that diverse knowledge always works better (Dilber et al., 2005; Huq & Martin, 2000; Metri, 2005). Although it is widely accepted that the active involvement of staff is an essential requirement for QI in any organizational setting, healthcare professionals are generally reluctant to become actively involved in broader QI initiatives (Jorm & Kam, 2004; Ovretveit, 1996; Pollitt, 1996). Distrust of hospital motives, lack of time, and fear that reducing variation in clinical processes will compromise their ability to vary care to meet individual needs hinder professionals to be involved. (Blumenthal & Edwards, 1995; Shortell, 1995; Shortell et al., 1995a).

The positive effects of employee involvement on job satisfaction and productivity are also well documented and confirmed in literature (Ahmadi & Helms, 1995; Solanti et al., 2003). These authors claim that the staff involvement is the key to motivating staff and improving performance in any business and at any level. While Weiner et al., (2006) reported that percentage of hospital staff and percentage of senior managers participating in formally organized QI teams are associated with better values on quality indicators but the percentage of physicians participating in QI teams is not associated with better values on quality indicators. Contrary to that, Physician involvement measured as clinical emphasis and number of active physicians in governance has a significant effect on the success of TQM and QI implementation (Kennedy et al., 1999, Mills et al., 2003).

2.6.2 Staff Training:

Understanding and awareness of current concepts and methods of QI are limited among healthcare professionals (Rogers, 2001). Many doctors do not recognize the difference between the traditional and newer quality methods, or know about the measured improvements to clinical quality which these methods have achieved (Ovretveit, 1996).

Training and education was also noted as supporting practice for implementing TQM approach. This practice reflects the organizations' capability to use the quality management tools and techniques (Wardhani et al., 2009). It includes; technical support, management training, statistical process control, employee training, scientific problem solving approach, and information system. It is generally accepted that success in TQM relies on continuing education and training of all levels of personnel (Brashier et al., 1996). Technical training also intends to meet the needs of high performance at the workplace, as it affects employee and staff efficiency and safety. Further, the employees and staff need to be trained in statistical techniques for better quality management (Mahadevappa & Kotreshwar, 2004).

Therefore, employees training and education are the fundamental engineering during the implementation of TQM. Huq and Martin (2000) suggested that employees requires three basic areas of training; instruction in the philosophy and principle of TQM; specific skills training such as in the use of statistical process control; and the interpersonal skill training to improve problem solving abilities. It is illustrated that healthcare providers in many instances are speaking about TQM without knowing it. This is highly indicative of the need for continuing medical education and training programs that will be part of the overall quality strategy and aiming at improving the necessary skills for CQI (Vouzas & Psychogios, 2007).

In a study, that Huq and Martin (2000) conducted it was clear that poor education and training presented a major obstacle in the development and implementation of TQM initiatives. Investment in education and training vitally important for TQM success (Cebeci & Beskese, 2002; Zhang et al., 2000). Several recent consistent empirical studies revealed that training and education are critical to successful TQM implementation (Dayton, 2001; Pun, 2001; Rao et al.,1999; Thiagarajan & Zairi, 1998; Yusof & Aspinwall, 2000; Zhang et al., 2000).

Hamad (2011) described the provided training in MoH maternities as frameless, supplier-driven rather than demand-based, with little follow up, whereas on-the-job training is either lacking or not well structured in most facilities. He suggested that the implemented training programs had failed to improve the quality of services and to motivate employees. Additionally, he revealed that most of the facilities do not have clear training system, national training database, or structured programs for investment in human resources (Hamad, 2011). On the other hand, Shalaby showed that the MoH is far away from implementing the learning organization dimensions (Shalaby, 2009).

2.6.3 Staff attitude:

Healthcare professionals' attitudes towards initiatives aimed at QI can be broadly divided into two categories: beliefs that the initiatives will have no or limited effects on quality; and beliefs that the initiatives will have a range of adverse effects on patient care and professional work. Of those who view such initiatives as ineffectual, some healthcare professionals are skeptical about the inappropriate application of what they see as 'management fads' like TQM and CQI to healthcare (Locock, 2003) and are disparaging about the standard of training programs in quality methods provided to doctors (Ovretveit, 1996).

Cabana and colleagues reviewed published studies examining barriers to adherence to clinical practice guidelines and demonstrated that these could be resolved into domains of knowledge, attitudes and behavior (Cabana et al., 1999). They showed that practitioners' attitudes are important. A doctor might not agree with a specific guideline because of lack of confidence in the authors and or their interpretation of the evidence. Concerns about applicability to a specific patient or cost-effectiveness may also play apart. Some doctors disagree with guidelines in general. They believe that they are biased, rigid, impractical and a challenge to autonomy. Others do not believe that following guidelines will be effective or that they as individuals have the capacity to follow guideline recommendations (Cabana et al., 1999).

Healthcare professionals are often skeptical that quality initiatives, such as audit, will lead to any changes in practice or improvements in quality (Johnston et al., 2000; Leatherman & Sutherland, 1998). Doctors in particular may be suspicious of the underlying motives behind quality initiatives, seeing them as a management Trojan horse, a strategy in disguise for cutting costs (Ovretveit, 1996). They may fear loss of

autonomy, power, status and income if they become team players in redesigned organizations (Jorm & Kam, 2004). They believe that quality initiatives like audit increase governmental and managerial control over doctors (Degeling & Maxwell, 2004; Johnston et al., 2000; Ovretveit, 1996; Sheaff et al., 2004).

2.6.4 Staff time and workload:

Not only may quality initiatives be seen as ineffective, but many healthcare professionals may also see them as potentially harmful. Concerns expressed include the substantial additional workload involved in many initiatives, and the diversion of effort, time and resources from direct patient care (Dean et al., 2004; Degeling & Maxwell 2004; Johnston et al., 2000; Renshaw & Ireland, 2003).

The main external factors associated with the failure of the continuous quality management program included shortage in staff and the lack of time to devote to this activity (François et al., 2008). Time shortage was a perpetual problem for health plan staff. In cases where it was clear to people that the programs were important to the health plan or to their superiors they managed to cope with additional assigned tasks in the time they had. Sometimes, however, the enormous workload resulted in uncompleted work in the way that those performing it themselves would have liked to do it (Gross et al., 2008).

2.7 Infrastructural factors:

2.7.1 Health information system (HIS):

Health information is a broad concept which includes all types of data necessary for decision making, evaluation and planning at all levels of the health care system (WHO, 2000a). The spectrum of information use ranges from setting priorities for strategic planning, to clinical diagnosis and management of illnesses, quality management of services, prevention and control of epidemics, human resource management, commodity management, and program evaluation and research (Stansfield et al., 2006).

Deming (1986) has stated "in God we trust - all others must use data". This statement emphasizes the importance of data, management techniques, tools, and systems that compose the hard side of QI. Information management is critical to improving quality.

Better information is needed to manage work processes at the level of clinical care and to compile high level reports that can be disseminated throughout institutions and across the healthcare delivery system. The benefits of the clinical information systems and electronic medical records include the reduction of errors, improvement in clinical decision making during patient encounters, and universal access to information in real time (Harrison & Palacio, 2006).

One mean of improving the availability of information at the point of care and across institutions is information technology (IT). Owing to its potential impact on quality, IT has garnered a great deal of attention and support. Although several institutions have demonstrated the efficacy of healthcare IT in improving quality, there is considerable debate about the ability to implement wide spread adoption of IT solutions in a cost-efficient manner (Chaudhry et al., 2006). However, given well documented failures in information management in the clinical setting, it seems inevitable that widespread adoption of healthcare IT will play a critical in addressing the quality agenda.

There are several important considerations in creating the appropriate structure for information management. Experts have advocated a national quality measurement and reporting system, and it will be essential to create standards for data collection and reporting if such a goal is to be realized (Berwick et al., 2003). At a hospital level, it will be important to reach consensus on the metrics to be processed. This will ensure accuracy, maximize efficiency, and minimize the cost burden across individual clinical service units. Indeed, information technology has great potential for improving quality and safety as well as for reducing costs and creating new service innovations, (Shekelle et al., 2006). Electronic medical record (EMR) is at the Centre of a health information technology system in most western countries. Many safety problems are the result of poor communication between shifts and across professions and departments. EMRs can improve communications, but there is no strong evidence of the impact of EMRs on communication processes and safety outcomes, or efficiency and savings gains (Shekelle et al., 2006).

Successful QI implementation depends on the availability and timeliness of information from which to identify problems and benchmark changes in healthcare processes. Hospitals that have developed information systems and integrated clinical and financial data have a stronger foundation upon which successful QI practices can be built (National Committee for Quality Assurance, 1997). Further, case study research

suggests that lack of relevant and timely clinical data and analysis represents a significant barrier to cultivating physician involvement in hospital QI efforts (Blumenthal & Edwards, 1995; Shortell, 1995).

One of the most consistent findings is that clinical information system capability is associated with wider and deeper implementation of QI (Alexander et al., 2006b; Gross et al., 2008). Moreover, new electronic medical records, computerized order-entry systems, systems for monitoring prescriptions and pharmaceutical product administration, and other efforts are all likely to create opportunities for enhancing quality and can serve as important starting points for further QI efforts. Li examined information analysis for QI (scope, validity, and management of data underlying overall QI) and found significant associations with service quality performance (Li, 1997). Meyer and Collier found that information and analysis (e.g., management of information and data, performance comparisons and benchmarking, and analysis and use of organizational level data) directly affected organizational performance (Meyer & Collier, 2001).

The Palestinian Health Information Centre (PHIC) collects health related data which includes vital statistics, clinic- based data, and publishes an annual report 'Health Status in Palestine'. The information system is insufficient, unreliable, and coverage and quality of the information system would need further improvement (Abed, 2007; Mataria et al., 2009). This was supported by Hamad (2009b) who reported that the system is characterized by a scarcity of useful, valid and timely information which completely hamper any attempt to develop a constructive planning. Despite all efforts made by the different stakeholders there are still huge needs for improvement of the existing HIS especially in terms of comprehensiveness and integration of all players (MoH, 2008). However, the use of performance indicators, the HIS data sources, data management and the information dissemination and use in decision-making are generally reflect the low performance in the GS (Hamad, 2011). The latter author suggested that the lack of HIS policies and regulations, lack of HIS training activities, inadequate standardized use of performance indicators, poor documentation practices and inadequate information sharing and coordination among providers were the main weaknesses in MoH maternities. Meanwhile, PNGO (2009) described the information sharing and communications among the Palestinian healthcare system are usually poor.

2.7.2 Financial Support and Material resources

Traditionally, the financing debate has focused on issues of 'how' revenue and expenditure are managed, with particular attention to affordability and efficiency. The fundamental need is to ensure that overall levels of expenditure on health are sufficient to provide the infrastructure necessary for health services, such as medicines, equipment, facilities and providers to the entire eligible population (McLoughlin & Leatherman, 2003).

Developing robust information systems and reorganizing around clinical processes requires significant financial resources (Blumenthal & Edwards, 1995). Allocation of resources to QI efforts represents a key indicator of organizational commitment. The support of QI with hard resources may differentiate those organizations that are serious about QI from those that are simply mimicking the latest trend. Hence, beyond the hospital's general financial health, its specific investment in QI may be an important feature of a supportive organizational context. (Alexander et al., 2006a).

Appropriate organizational infrastructure and financial support are significantly associated with greater scope and intensity of hospital-level QI implementation. (Alexander et al., 2006b). Moreover, infrastructure and financial support were associated with a higher level of involvement in QI programs across hospital units. These results were congruent with Buciuniene et al., (2006) that found the most critical issues related to the QI implementation include procedure development, lack of financial resources and information, and development of work guidelines. On the other hand, Mills and Weeks determined whether QI teams felt they had sufficient resources and found that low performers had lower measures of resources from the beginning to the end of the QI initiative and that high performers were more likely to report sufficient resources (Mills & Weeks, 2004). Another supporting study conducted by Gross et al., (2008) found the amount of resources allocated to the QI program, including funding to produce materials is a factor affecting the success of the program.

The Palestinian essential drugs list comprises 480 drugs while the essential medical disposables list comprises 700 items. These drugs and disposables are considered necessary for the provision of essential health care services and should be available at all circumstances. Disposables include a wide variety of essential items such syringes, line tubes and filters for dialysis or dressing materials. According to a recently released

WHO report (2011), 38% of drugs and disposable were out of stock in Gaza in early 2011. Further, around 30% of vital medical equipment were lacking. Another recent report conducted in Gaza by WHO and UNDP (2011) revealed that 65% of MoH hospitals infrastructure and 50% of PHCs infrastructure are inadequate for provision of quality healthcare services.

2.8 Socio Demographic Characteristics:

The extant research has evidenced that demographic characteristics such as age, gender, specialization and income contribute to individual user differences in perceiving service quality (Kleijnen et al., 2007). The attitude and perception of physicians is thereby quite different from that of the nursing personnel. Nursing has traditionally been confronted most with quality projects. They tend to be more open to TQM and have in many cases already experienced TQM (McLaughlin & Kaluzny, 1994). Although it was found that gender, age, qualification, and job position had no influence on the perception of TQM implementation's components, experience seemed to have influence (El Dokki, 2006). Meanwhile, it was found that experience had not influence on the perception of TQM implementation's components (El Kahlout, 2004).

2.9 Previous studies in QI in healthcare in Palestine:

After reviewing the available literature, the researcher found that there is no comprehensive assessments were made to explore the main barrier factors to the implementation of QI at the MoH. However, some studies tackled specific factors related to TQM.

A study conducted by El- Adham (2004) to investigate the possibility of applying quality management approaches in to healthcare system through the identification of the level of offered services in Nablus hospitals (public, private, charity) and to search for possible factors affecting level of offered services. The study also aimed to find out to what extent those hospitals implemented the standards of quality management system. The study found a weakness in most working departments with the exception of working departments in the private sector. Further, the study showed that the TQM criteria were not considered as hospital priority with the exception of Rafidia hospital.

Another study conducted by El- Kahlout (2004) aimed to identify the current status of TQM in the MoH hospitals and to determine the factors affecting the sustainability of QI activities at the MoH. The study pointed out that there was a weakness in the level of using the scientific approach to measure QI indicators, the existing incentives were not sufficient and the commitment of top management for the improvement process was low. It was found also the supportive quality culture, the training plans, and the institutionalization of quality concepts were lacking.

Similarly, a study conducted by El- Dokki (2006) to examine the implementation of TQM elements at the ministries of the Palestinian National Authority in GS. The study revealed the low support and commitment of top management to for the process improvement, poor awareness of the TQM implementation concepts, weak participation in the TQM, misuse of the training opportunities, and poor reward system.

A study conducted by El- Telbani (2008) to evaluate the experience of implementing the QI Program in the MoH from 2000-2005. The findings showed that although the objectives of the QI Program, structural support, training and information support were satisfactory implemented, the culture of openness, collaboration, teamwork and learning from mistakes had not strengthened well.

Another study conducted by Badr (2009) to examine the effect of the implementation of TQM on the performance of the NGOs in the GS. The study revealed that the implementation of TQM at the NGOs was positive with higher customer focusing followed by the top management commitment, continuous improvement, quality strategies & policies, management system, and employees' participation.

It could be concluded from the aforementioned studies that it focused mainly on targeting a specific quality determinants factors to examine the implementation of QI and the factors affecting its implementation. However, this study is complementary to those studies, as it comprises new dimensions represented in the organizational, individual, and infrastructural factors that might affect the implementation of QI at the MoH hospital and PHCs. Furthermore, this study attempts to consider the strength points of the previous studies and identify the shortfalls in the case they exist. Consequently, it could enrich the body of the literature.

Chapter (3)

Methodology

This chapter presents the study methodology. It describes the study design, target population, sampling method and ethical and administrative consideration. Further, the data collection methods and instruments are illustrated, in addition to measures followed to increase scientific rigor, data processing and analysis and finally the limitations of the study.

3.1 Study Design

The study is descriptive, analytical cross sectional one with a triangulated design (quantitative and qualitative). The cross sectional design was selected as it was judged to be the most appropriate method to fulfill the aim of the study in a limited time and money. The researcher used two data collection tools to cover the research topic from different perspectives which enriched the digging for realities and strengthened the scientific rigor of the findings. At first, a survey questionnaire was used which represents one of the most common types of quantitative research. The second one was the key informant interviews as a qualitative method.

3.2 Study Setting

The study was carried out in two selected medical complexes (Shifa and Nasser), and five PHC centers (level 4) distributed at the five Gaza Governorates (North Gaza, Gaza, Middle Region, Khanyonis, and Rafah Governorate). Both Shifa hospital in north GS and Nasser in south GS are medical complexes as each one comprise three hospitals (medical, surgical, and obstetric) and the two hospitals are the largest governmental hospitals in GS which provide most of the secondary health care services, and have hospital beds of (500) and (260) respectively, and serve more than (496411) and (270979) respectively. Besides, the total number of employees in Shifa were (1423) and (752) in Naser. Additionally, these two selected hospitals have been exposed to QI activities through the QI project implemented in MoH during 1995-2005. Meanwhile, the selected five PHC centers (level 4) were (Jabalia Martyrs, Remal, Dear Al Balah Martyrs, Khanyounis Martyrs, and Rafah Martyrs center). These (level 4) centers were selected in terms of the high services coverage as they provide preventive, promoted,

and curative healthcare services including laboratory, x-ray, and ultrasound services, besides the diversity of staff in terms of numbers and specialization.

3.3 Study Period:

The study had started immediately after having the university approval and obtaining the ethical approval from the Helsinki committee in June 2011. Data collection tool were prepared in July 2011 while in the same period official MoH directorates were formally contacted to obtain their administrative approvals to start the study. Pilot study was conducted in August 2011 and after that data collection activity (survey) started till the end of September 2011. Data entry, data cleaning, and finally data analysis were conducted in October till mid November 2011. Writing the research report was performed in the next period till the end of February 2012. The data collection and analysis through the informant interviews were conducted in March 2012. While writing the final research report was completed at the beginning of April 2012.

3.4 Study Population

The study population consisted of all technical and managerial staff working at MoH hospitals and PHC centers at the period of the study. The total number of MoH hospitals was 13 and 54 PHC centers. During 2009 the total number of MoH staff were (8165), of them 5237 (64%) were working at hospitals and 2341 (28%) were working at PHC. Hence, the total number of study population was (7578). The managerial positions ranged from director general, directors to heads of departments and supervisors.

3.5 Sample Size and Sampling Process

The sample size was calculated by using Epi Enfo Program. The calculated sample size was (450). The sampling process in this study based on two phases; the first one used the purposive selection approach through selecting two hospitals (Shifa and Naser) out of the 13, and five PHC centers (level 4) out of the 54 in GS.

The second phase of the sampling process to select the technical and managerial staff was based on using the randomized multi-stage strata followed by a proportional sampling (Annex 2.1 and 2.2). This type of sample was selected because the study population is not homogenous as it included individuals with various specialization and

positions. The total number of staff who had positively responded were 397 resulting in a response rate of 88.2 %. This rate seems to be highly accepted.

The key informants for the in depth interviews were selected purposefully after the consultation of the academic supervisor. The total number of interviewees was eight.

3.6 Eligibility Criteria

3.6.1 Inclusion Criteria

All healthcare providers (technical and managerial) who had a registration and licensing certificate and have worked at Gaza-MoH hospitals or PHC centers at least for two years of the period of data collection.

3.6.2 Exclusion Criteria

All staff who are not working at Gaza-MoH hospitals or PHC centers at the period of data collection for any reasons (refrainment, retirement, turnover, sickness, travelling abroad...). In addition, all new staff (technical and managerial) with less than two years of employment, all volunteers, and student at time of data collection were excluded. The administrative workers who have less than diploma are also excluded.

3.7 Ethical and Administrative consideration and procedures

After receiving the study approval from Al Quds University, an official letter of approval from the Helsinki committee in Gaza was obtained (Annex 3). Additionally, the official MoH directorates were formally contacted to obtain their approvals to conduct the study at MoH hospitals and PHC centers. Formal letters were sent through the university to official MoH directorates mentioning the title of the research study and name of researcher (Annex 4).

All questionnaires were attached with a full explanatory form including the title of the study, purpose, assurance about the confidentiality of the information, and the instructions how to respond to the questionnaire (Annex 5). Additionally, the form included a statement indicating that the participants have the right to refuse or participate in the study. Confidentiality and anonymity of collected data were completely maintained. Verbal consent was obtained from each participant.

3.8 Study instruments

The researcher used two data collection methods in this study; the first one was structured self-administered questionnaires as quantitative tool, and key informant interviews as a qualitative tool.

The structured self-administered questionnaire was developed by the researcher himself after conducting an extensive literature review and consultation of experts (Annex 6). It focused on what is actually experienced or practiced on the individual basis and on the perceptions and attitudes of the staff. This questionnaire was judged to suit the eligible individuals. It contained both positively and negatively formulated statements. Further, it was translated into Arabic version with simple words to ensure standardized questioning of participants and to avoid any variations in the translation that might negatively affect the credibility of responses.

The study questionnaire was divided into the following parts:

- Demographic related data including gender, age, educational level, specialization, job position, work setting, monthly salary, previous work experience. This information aimed to test the variation of the perceived barriers for the implementation of QI in reference to these variables.

- Second part included questions related to the situation of QI implementation in MoH facilities to measure the dependent variable in this study. The scale ranged from 'yes' receiving the score of 2 to 'no' with score 1, and 'don't' know' with score 0.

- The third part included questions related to the organizational, individual, and infrastructural factors to measure the independent factors in this study. All statements and items used in this part were scored on a five-point Likert scale ranging from 1 for 'strongly disagree' to 5 for 'strongly agree' and 'don't know' with score 3.

- At the end, an open-ended question was added for additional suggestions regarding barriers factors that might hinder the implementation of QI in MoH facilities.

The Key informant interviews were used as a second data collection method. Semi structured, opened ended statements were used in this qualitative methodology (Annex7). Eight experts were selected to conduct in-depth interviews to dig beneath the elicited quantitative data of the study, make deep understanding and generate new ideas, and give more evidence towards their perception (Annex8).

3.9 Pilot Study

Pilot questionnaires were conducted in order to test, standardize the research instrument and to increase the response rate. The piloting aimed also to test the feasibility and suitability of study instrument and to improve its validity and reliability. The pilot results were used to finalize the tool for the general study phase. A sample of 20 was selected to pilot the questionnaire from different MoH facilities. According to the results of the pilot tests, only minor changes in the wording of some questions were needed and the total number of the questions has been shortened. Nevertheless, the results of the pilot questionnaires were excluded from the total results of the study.

3.10 Data Collection

Questionnaires were collected by the researcher and two qualified data collectors who got explanation and training by the researcher about the study; its purpose, objectives, procedures and how to distribute and collect the questionnaires with respect to confidentiality. The self-administered questionnaire was used as it can be distributed to a large number of people which increases the odds for a greater number of respondents and can cover wide range of topics. Besides, this tool can reduce the interviewer bias. The Arabic version was used to collect the data. Questionnaires were distributed during the daily work and participants were given enough time to fully complete their responses. The researcher and the assistants remained closed during the data collection for responding to any possible inquiries from participants. The average time for filling the questionnaire was a round 25 minutes.

Key informant interviews were conducted by the researcher himself. The interviewees were contacted face to face, and the average period time for the interviews was ranged from 50-70 minutes. All of them were informed about the purpose and the main features of this study. The interviews focused on the following domains; evaluating of the implementation of QI activities at the MoH, identifying the main barriers for QI implementation, assessing the effects of barrier factors on the implementation of QI,

explanation of the main quantitative findings, and determining the main suggested factors that might facilitate the implementation of QI. Interviewees were asked about their opinions and attitudes regarding those domains.

3.11 Validity and Reliability

3.11.1 Validity of the used instruments

Validity is when a test is actually measures what it is supposed to measure (Burns & Grove, 2005). Face validity is related to the design of the instrument which was reached in this study by organizing the questionnaires in categories with logical sequence. Whereas content validity examines to which extent the instrument includes all major elements relevant to the construct being measured (Burns & Grove, 2005). This type of validity was assured as the questionnaire were reviewed by nine different experts with different background (Annex 9), where all questions that reached less than 80 % consensus were removed. The internal validity was reached through the piloting process. The validity of the qualitative key informant interviews data was assured by the following actions: going back to respondents to make sure that the analyzed data was correctly interpreted and low-inference description by using description phrased very closed to respondent's accounts.

3.11.2 Reliability of the used instruments:

An instrument is considered as reliable when it yields consistent results by repeated measuring the concept of interest (Burns & Grove, 2005). The reliability of the questionnaire scale questions were tested using the reliability coefficient "Cronbach "Alpha test. The overall value of the reliability coefficient was 0.787 which is over the accepted level of 0.7. In addition, the coefficient values by the different categories were ranging from 0.689 to 0.745. The reliability of the qualitative key informant interviews data was assured through the description of the interviewees characteristics (location, position, and experience).

Table 3.1: Reliability of the used questionnaire:

No.	Item	A
1.	QI implementation factors	0.743
2.	Organizational factors	0.745
3.	Individual factors	0.723
4.	Infrastructural factors	0.689
	Total	0.787

3.12 Data Management and Statistical Analysis

After completion of data collection, the researcher used the Statistical Package for Social Sciences (SPSS) program version 16 to code the questions and the responses. Data entry following the developed coding system was made by the researcher himself. After that the researcher conducted cleaning of entered data by reentering of random sample of questionnaires and by making descriptive statistical frequencies and reviewing of results. Means and Standard Deviations (SD) of continuous numeric variables were computed and then recoded in appropriate categories. Descriptive statistical analysis was made by comparing frequencies and percentages of different variables. Total scores of questionnaires' domains were computed. Reliability of the used instruments was tested by computing the reliability coefficient to ensure the consistency of findings. To examine the relationships between independent (categories) and dependent variables (numeric scores), inferential statistical tests were made including independent t-test and one-way ANOVA test. The independent t-test was used to compare two means and the one way ANOVA to compare more than two means. Pearson correlation test was used to investigate the correlation between the dependent and independent variables in this study. P-Value of equal or less than 0.05 has been considered as statistically significant.

After completing the analysis of quantitative data, the collected qualitative data was analyzed using the coding and thematic analysis approach. The interviews were audio-recorded, and data were transcribed verbatim to facilitate analysis. All interview transcripts were read many times to get a sense of the data and to review for emerging themes. A coding list was developed and revised as data were reviewed. Data for each code were reviewed and compared to data for other codes. Finally, the researcher identified key themes, grouped responses by theme, then compared and resolved findings.

3.13 Limitations of the study

- The findings of the study are based on the perceptions of participants rather than on the in-depth evaluation, therefore, certain questions included in the questionnaire required subjective judgments to be made.
- The cross sectional design of the study has some weaknesses as it is liable to contextual changes and does not allow giving answers of possible causalities.

- Exclusion of the refrained employees that many of them were experienced and well trained may affect the result of the study.
- Limited access to scientific recourses as quality textbooks, journals, and articles.
- Undeveloped or unclear MoH's employee data base.

Chapter 4

Results & discussion

In this chapter the researcher illustrates the main findings of the study and compares that with the results of previous relevant studies.

4.1 Socio-Demographic characteristics and work related variables:

Table 4.1.1: Distribution of participants by Socio-Demographic characteristics:

No.	Variable	Frequency	%
1.	**Gender**		
	Male	257	64.7
	Female	140	35.3
	Total	**397**	**100.0**
2.	**Age**		
	≤ 30 Yrs.	83	20.9
	From 31 to 40 Yrs.	172	43.3
	From 41 to 50 Yrs.	113	28.5
	> 50 Yrs.	29	7.3
	Total	**397**	**100.0**
	(Mean = 38.035 , MD=38.00 , SD.= 7.890)		
3.	**Qualification**		
	Diploma	88	22.2
	Bachelor	247	62.2
	Master	51	12.8
	Doctorate	11	2.8
	Total	**397**	**100.0**
4.	**Specialization**		
	Medicine	113	28.5
	Nursing	155	39.05
	Pharmacy	30	7.6
	Lab. science	25	6.3
	Radiology	20	5.0
	Physiotherapy	8	2.0
	Administration	46	11.6
	Total	**397**	**100.0**
5.	**Job Position**		
	Practitioner/Technical	280	70.5
	Department Head	89	22.4
	Supervisor	20	5.0
	Department Director	8	2.1
	Total	**397**	**100.0**
6.	**Monthly salary**		
	≤ 2000 NIS	61	15.4
	From 2001 to 3000 NIS	131	33.0
	From 3001 to 4000 NIS	138	34.8
	> 4000 NIS	67	16.8
	Total	**397**	**100.0**
	(Mean =3176.0 , MD=3160 , SD.= 976.23)		
7.	**Total years of experience**		
	≤ 10 Yrs.	191	48.1
	From 11 to 20 Yrs.	147	37.0
	> 20 Yrs.	59	14.9
	Total	**397**	**100.0**
	(Mean =12.63 , MD=11.0 , SD.= 7.04)		

The total number of the study population was 7578 ,whereas the study sample size was 450 and the total number of study participants was 397 with response rate of 88.2%. This high response rate gives more validity to the study results. The percentage of male was 64.7% and female 35.3% (Fig. 4.1). These percentages were consistent with the percentages of E'abead (2009) who investigated the status of change management in the Palestinian MoH and its effect on the employees' performance through the case study at Al Shifa medical complex. The latter study showed the percentage of male was 63.5% and 36.5% for female. However, this variation could refer to the respect of social equality and gender issues by hiring females. Such percentage of females working at the MoH could be attributed to the health job characteristic that necessitate the staffing of female practitioners to manage female patients.
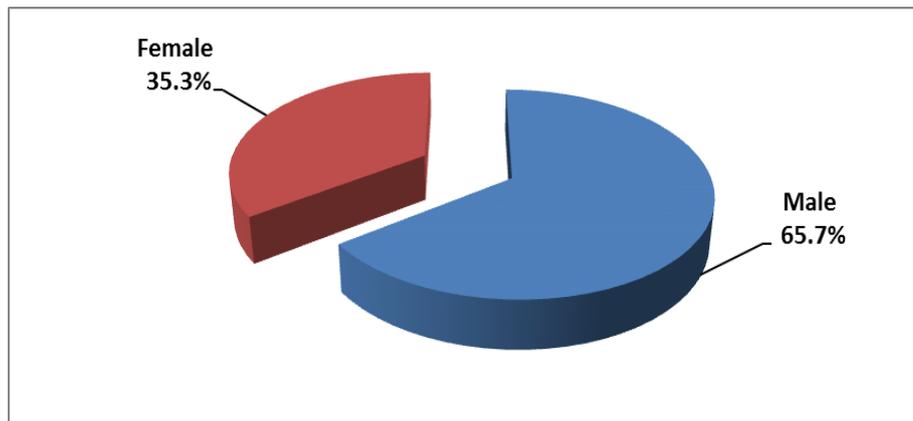
Figure 4.1: Distribution of participants by gender

Regarding age, the average age of participants was 38.3 years with a considerable portion aged between 31 to 40 years (43.3%) whereas (20.9%) of participants comprise the younger group, 28.5 % are located between 41 to 50 years old , and 7.3% the older one. The high percentage of young employees (64.2% are up to 40years) is consistent with the finding of Mansour (2006) who assessed the job satisfaction among healthcare providers at Al-Naser hospital and found that 61.5 % were up to 40 years. However, this age structure could be seen as a potential source for the MoH and an opportunity for investment in the capacities building. On the other hand, the older group of employees could provide the young generation with the needed experience as this group often has the accumulated work experiences.

The educational level of the study participants ranged from diploma (22.2%) to post graduate degrees (15.6%) with the majority of bachelor degree holders (62.2%). This differs to somewhat with E'abead (2009) findings, showed that 43.5% has a bachelor degree. However, the different upgrading programs enabled many employees such as nurses, lab. & x- ray technicians, and administrators to hold a bachelor degree. Moreover, the physicians always hold a bachelor degree as a minimum requirement to practice the medicine. However, the high percentage of the bachelor holders could be seen as a strength point towards the investment in training about QI. On the other hand, this diversity in the educational levels might provide opportunities for more planned human resources development.

According to specialization, the high percentage of participants 39% were nurses, followed by physicians 28.5% and 13.3 % paramedical comprising x- ray & lab. technicians, and physiotherapists, while 11.6 % were administrators (the ineligible administrators were excluded) and the little group was the pharmacists 7.6% (Fig. 4.2). This percentage slightly differs from that of E'abead (2009) who conducted his study in a selected area at the MoH, and showed that 36.1% were physicians. However, this variation in the study percentages could reflect the MoH staffing policy considering some health disciplines at the expense of other disciplines such as paramedical. The ratio of allied health professionals to population in Palestine is very low compared with that in other countries (Schoenbaum et al., 2005). The nurses-population ratio in the PNA is 17.1 for every 10000, whereas Jordon, Israel, and UK has 29.4, 63, and 121.2 nurses respectively (MoH, 2008). However, this suggests the need for reviewing the staffing policies in response to population growth and needs.
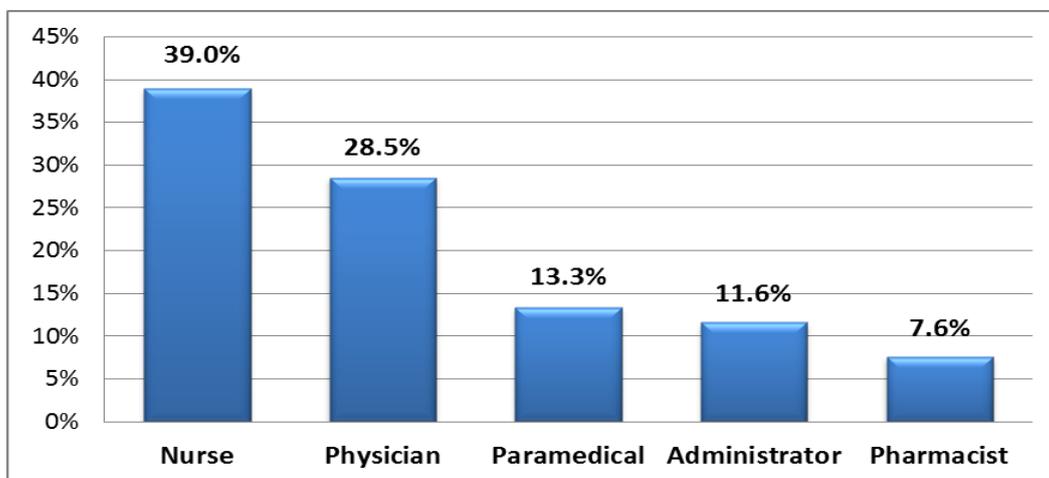
Figure 4.2: Distribution of participants by specialty

The job position of participants ranged from the frontline technical healthcare providers to other different managerial levels. The majority of the participants were practitioners/technicals (70.5%), and (29.5%) the managerial individuals including (department head, supervisor, and department directors) (Fig. 4.3). This is congruent with E'abead (2009) finding that showed the managerial personnel were 31.9%. It seems that the percentage of managerial positions at the MoH is above standards. More than 20% of the positions in GS are managerial, while in US it is only 0.5% (Hamad, 2001). However, Abed (2007) suggested that the Palestinian directors are politically nominated regardless of their qualifications and background, while Hamad (2001) reported that the percentage of personnel occupying managerial positions is extremely high (Hamad, 2001). On the other hand, it seems to be confusing to distinguish technical from managerial responsibilities, which could be attributed to the unclear job description.
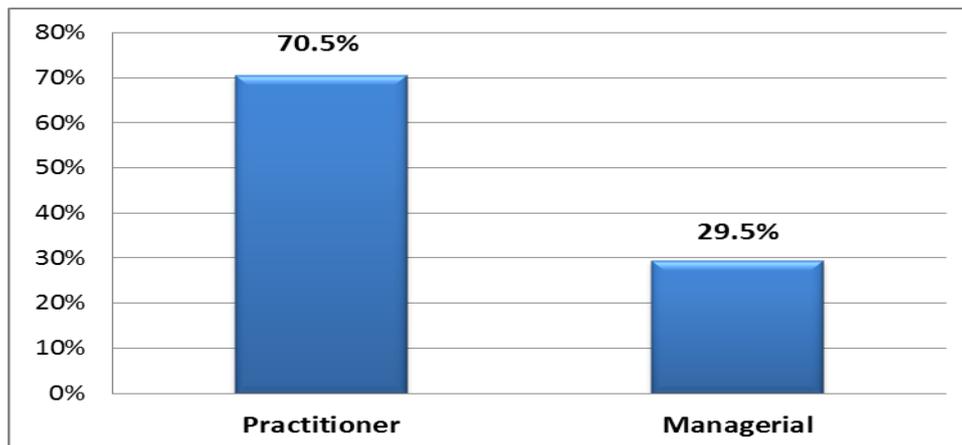
Figure 4.3: Distribution of participants by job position

The average monthly salary of participants was 3176 NIS (840$), with a considerable proportion (34.8%) ranged between 3001 to 4000 NIS whereas (33%) ranged between 2001 to 3000 NIS and the other two categories were (15.4%) less than 2000 NIS and (16.8%) more than 4000NIS. These differences in the salaries could be attributed to the civilian employee's law regarding salaries categorization according to job titles. Moreover, it could be attributed to the fact that the financial incentive system is still lacking or unrecognized at the MoH.

According to the total years of experience, the average total work experience were 12.6 years, and the majority of participants (48.1%) had work experience of less than 10 years, while (37%) of participants had a total work experience ranged from 11 to 20 years, and other (14.9%) had a total work experience of more than 20 years. These findings are consistent with Mansour (2006) who showed that 49.8% had work experience of less than 10 years. This distribution, particularly the high percentage (48.1%) who had work experience of less than 10 years could be explained as a result of the high turnover rate (refrained employees 21.2%) after the political division in 2007 and recruiting of a new ones instead.

Table 4.1.2: Distribution of participants by work related variables:

No.	Variable	Frequency	%
1.	**Work setting**		
	Hospital	262	66.0
	PHC	135	34.0
	Total	**397**	**100.0**
	(Mean =12.63 , MD=11.0 , SD.= 7.04)		
2.	**Did you learn about QI during your university study?**		
	No	320	80.6
	Yes	77	19.4
	Total	**397**	**100**
3.	**Have you ever received postgraduate training or courses related to QI concepts or activities?**		
	No	322	81.1
	Yes	75	18.9
	Total	**397**	**100.0**

Regarding the work setting, the majority of participants (66%) work in hospitals, and (34%) in the PHC centers (Fig. 4.4). The bulk of employees working at hospitals could be explained by the fact that many new hospitals (Al-Rantisi, Al-Najar, Al-Emarati, Kamal Odwan, and Beit Hanoun) were established in the last years as a response to population growth and needs.
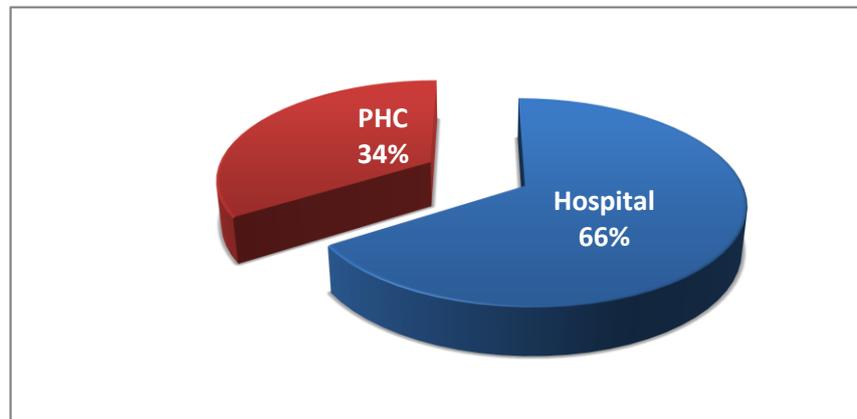
Figure 4.4: Distribution of participants by work setting

Surprisingly, the vast majority of participants (80.6%) did not learn about QI during the university study. This could be explained by the fact that health sciences colleges focus on the technical/practical branches rather than introducing the concept of QI in their curriculums. Similarly, (81.1%) of participants did not receive any postgraduate training or courses related to QI concepts or activities. This is supported by the findings of shalaby (2009) who found that 60.9% of respondents did not participate in training in the last three years. A possible reasonable explanation is that MoH provides more attention to training in the clinical practice issues rather than targeting the quality management issues. Another possible explanation could be attributed to the scarcity of the quality experts in the healthcare sector.

4. 2 The perceived barriers to the implementation of QI:

The factors hindering the implementation of QI were grouped into three main factors; organizational, individual, and infrastructural. Each one has sub factors containing statements to measure the responses of the participants. All of these sub factors were evaluated in accordance to a scale ranging from the score 5 for 'strongly agree' to the score 1 for 'strongly disagree', while the score 3 for 'neutral'. Furthermore, the score less than neutral score of 3 was assumed to be a barrier and the score of more than 3 is not. This implies that the least mean score is considered as the highest perceived barrier. The results were as the following:

4.2.1 Organizational Factors:

4.2.1.1 Top Management Commitment

According to participants' responses, the vast majority of participants (85.4%) stated that management does not allocate adequate organizational resources (e.g., finances, people, time, and equipment) for QI activities. Meanwhile (75.3%) stated that management is focusing on satisfying emergency health needs rather than supporting the implementation of QI activities, while (61%) stated that management does not address the QI as a priority in planning and policies making (Annex 10). This finding implies that the MoH top management commitment did not play a critical role in the implementation of QI. However, the finding reflects the wide gap in supporting the QI activities, which cannot be implemented without the continuous commitment and support of the top managers. These results could be attributed to the political situation and the imposed siege which resulted in freezing most donors' fund. This forced the MoH to change its priorities many times to respond to the emergent state and humanitarian needs rather than being committed to supporting the developmental programs. However, this serious perception should be alarming to the decision makers in MoH to consider the necessity of shifting much commitment and support towards sustaining QI efforts. The study finding was supported by the finding pointed that many of the defects in the Palestinian healthcare system could be attributed to the weakness in the role of the management practices in supporting the management systems (Hamad, 2011). Managerial positions are valued as prestigious rewards and the management of the organization takes only little of the director's time and efforts and occupy a second grade of directors' personal interests (Massoud, 1995).

The study finding is also consistent with the findings of El Dokki (2006) and EL Kahlout (2004) who found that the support and commitment of the top management toward the implementation of TQM was weak. It is worth pointing that there is a general consensus in the literature which highlighted that top management commitment and support is the most important enabling practice for implementing QI in the health care institutions (Dilber et al., 2005; François et al., 2008; Gross et al., 2008; Li et al., 2001; Pun, 2001; Sureshchandar et al., 2001; Zhang et al., 2000).

Considering the analysis of qualitative data, despite all the interviewees believed that the main responsibilities of the management are to support, lead, motivate, monitor, and train, most of them believed that the situation of chronic crisis in GS has forced the top management to focus more on meeting the emergency needs rather than targeting the QI practices as a priority. However, there was a consensus among the interviewees that a very limited support at top management level hampered the implementation of QI.

> " There is only verbal commitment from the management to improve
> the quality, but there is no actual or tangible support for the QI
> activities. The management did not adopt the QI as an approach
> to improve the quality of health services" Health Expert.

4.2.1.2 Organizational Culture

The analysis shows that the vast majority of participants (78.9%) believed that the values of achievements and innovations were not appreciated and (77.1%) believed that the values of decision-making at their work setting are not consensus-based. In addition, of participants (54.1%) stated that team working is weak and unsuccessful (Annex11). These findings show the negative perception within the MoH climate toward the QI values particularly in terms of culture of achievement, creativity, risk taking, and teamwork. This could be explained by the lack of transformational leaders at the MoH as leaders often determine an appropriate organization culture and play a role in organization cultural change. Other possible explanation could be attributed to the fact that previous QI projects implemented at the MoH targeted some areas for improvement rather than working to diffuse the quality concepts among the personnel. This is consistent with the finding of El Telbani (2008) who evaluated the experience of implementing the QI program in the MoH from 2000-2005, and found that the culture of teamwork, openness, collaboration, and learning from mistakes should be fostered. Meanwhile, Hamad (2011) reported that the provision of healthcare services lacks the values of the collaborative teamwork. On the other hand, decision making in the Palestinian health care system is widely subjected to cultural related factors as the predominant culture of centralization (Hamad, 2009b). Another supporting finding revealed that the culture of innovation for problem solving was insufficient, and the employees' participation in decision-making needs more strengthening (Eshbear, 2007). It is worth mentioning that the various studies identified organizational culture as one

of the most important influencing factors in the implementation of QI (Berlowitz et al., 2003; Carman et al., 1996; Parker et al., 1999; Rad, 2006; Shortell et al., 2004; Shortell et al., 1995a; Wakefield et al., 2001).

Qualitatively, the majority of the interviewees' indicated that the quality culture is lacking in the MoH context. They believed that MoH did not invest much to institutionalize the quality concepts within its facilities.

> " I think that the personnel in the MoH is burned out and not seeking
>   to improve what they do…they just do the routine work … however
>   the value of excellence has not yet diffused ." Health Expert,
>   Academic.

4.2.1.3 Leadership

The findings show that most of the participants (64.2%) stated that leadership at their work setting are neither inspirational that can influence their abilities to achieve tasks nor has the capacities for empowerment, guidance, and direction towards performance improvement with (62.8%). Moreover, participants suggest that the leaders at their work setting lack the skills for effective decisions making & problem solving techniques and lack the capacities to manage change during process improvement with the percentage of (59.4% and 62.2%) respectively (Annex 12). These responses may refer generally to the weak role of the MoH leaders in respect to mobilizing the work force towards achieving the organization's mission, vision, short and long term goals. The possible explanation for such finding is that MoH leaders are practicing the administrative role rather than empowering, coaching, guiding, and influencing the personnel to achieve the MoH goals. It is worth mentioning that management everywhere are always called to shift from a control based style of management to an empowering management where attention is focused on coaching and leading. However, the study finding is supported by (Massoud, 1995) who showed that many management factors are affecting the efficiency and the effectiveness of health system in Palestine. At the top of these factors, is leadership in healthcare organizations. Meanwhile, the Palestinian managers are selected on the base of being either highly qualified in clinical practice or having the proper political relations (Hamad, 2001; Massoud, 1995). They generally did not expose to any special training in management or leadership (Massoud, 1995). Many studies revealed that leadership is

critical factor for the successful implementation of QI efforts (Alexander et al., 2006; Alivi & Yasin, 2007; Bergman & Klefsjö, 2003; Greenberg & Baron, 2003; Hansson, 2003; McAlearney, 2008; Osland et al., 2000; Soltani et al., 2005; Weiner et al., 2006; Yang & Christian, 2003).

The findings of the key informant interviews revealed that most of the interviewees concurred with the view that lack of the real leaders was one of the main challenges that the MoH was facing. They felt that managers were attaching themselves with the administrative role rather than the leadership role. They also thought that the MoH leaders were lacking the inspiring characteristics and the capacities to encourage, direct, and lead the change for improvement.

> " The managers themselves are lacking the skills of leading, they were not trained on or learned the concepts of management or leadership… most of them are clinical practitioners." Senior Manager.

4.2.1.4 Human Resources Management & Incentive:

The analysis shows that most of participants (65%) stated that the human resource management at MoH was weak and ineffective. On the other hand, of participants (46.6%) stated that the MoH neither has a clear strategies & policies for staffing & recruitment the qualified employees nor training & development policies. Meanwhile (23.7%) of participants stated that MoH have policies for recruiting, staffing, and training (Annex13). This finding could be attributed to the lack of clear strategic plan for human resource development targeting the personnel actual needs. The study finding is supported with the finding of Shalaby (2009) who reported that only 35% of the MoH-Gaza health facilities had human resource development strategies, while orientation programs for the newly hired staff are rarely available or implemented in case there is any. This finding is also supported by the study of Mataria et al., (2009) who assessed the Palestinian healthcare system and found that a clear policy for human resources for health is needed. Furthermore, Abed (2007) highlighted the need for uniform criteria of licensing and recruitment of human resources at the MoH. Another relevant study aimed to evaluate the use TQM at the PNA ministries, found that the HRM was weak (EL Dokki, 2006).

On the other side, the vast majority of participants (83.6%) stated that the MoH has not a clear incentive system in their facilities. Meanwhile, the vast overwhelming majority (94.5%) believed that absence of the financial incentives hinders the success of QI implementation at the MoH, while (71.1%) of respondents believed that MoH is unable to provide financial incentive due to the limited budget. Considering the other types of incentives the vast majority (85.7%) believed that non-financial incentives are neglected at their work setting and (87.7%) believe that the MoH is adopting the actions of penalty rather than rewards. These findings indicate that HRM functions seem to be impaired and rarely reflect a strategic human resources planning. Considering the financial and non financial incentives, which are important motivators, it seems to be widely underutilized by the managers in the MoH facilities. The negative perception of the respondents toward the current incentive system could be attributed to lack of credible programs such as the Pay Per Performance (PPP) that links the incentives with the performance and achievements. Moreover, the exceptional pensions and allowances to appreciate the distinctive efforts seem to be underused. However, Abed (2007) proposed that the current low salary system might affects the efficiency and quality of healthcare within the MoH as the qualified professionals seek to work in the private sector where the salaries are double or sometimes tribe.

Such study finding is consistent with the findings of EL Dokki (2006) and EL Kahlout (2004) who found that the using of incentive programs for TQM success were poor. However, the literature identified the effectiveness of the HRM functions and the incentive programs which are significant to the implementation of QI (Aldakhilallah & Parente, 2002; Alireza et al., 2011; Dayton, 2001; De Menezes & Wood, 2006; Easton, 1998; Everett, 2002; Haksever, 1996; Li et al., 2001; McGovern et al., 2008; Rao et al., 1999; Rodriguez et al., 2009; Vouzas, 2007;). However, other findings revealed that financial incentives are not the primary motivator towards changing behavior or engagement in QI activities (Gosfield & Reinertsen, 2008; Teleki et al., 2006).

Through the analysis of in depth interview data, it was clear from the interviewees' responses that most of them consented to the view that the MoH does not have well-developed health strategies and policies for HRM. They believed that the MoH did not appoint the suitable personnel to the right place, taking into consideration that QI needs highly qualified and well-trained personnel. Only few of the interviewees believed that

the MoH invest widely to build the capacities of the health personnel by using the available resources such as video conferences and e learning.

> " The MoH focuses more on providing the healthcare services than on investment in the human resources. Furthermore, it selects the personnel on the basis of political affiliation rather than on professional qualifications". Health expert, Academic.

4.2.1.5 Standards/Protocols

Despite the vast majority of respondents (82.6%) stated that training on implementation of standards/protocols is limited and of respondents (66.2%) stated that employees at their work setting are not compliance with standards implementation, only (50.6%) stated that tasks are implemented in a hub hazard and non-uniform way. On the other hand, the majority of respondents (68.8%) stated that the compliance with work standards/protocols is not time consuming and (44.3%) stated that compliance with work standards in MoH facilities is feasible. These differences in the responses could be attributed to the relatively positive attitude towards the value of standards whereas the availability, training and compliance with standards were perceived negatively. However, the study finding could be explained by the view of that the adherence to standards was not linked with an incentive program. Although the standardization covered some selected areas in the MoH such as the chronic diseases, infection control and nutrition guidelines, and Integrated Management of Childhood Illnesses (IMCI), Abed (2007) reported that policy, procedure, and clinical practice guidelines as ways of introducing standardization of healthcare services are not implemented in a systematic way. Furthermore, Hamad (2011) suggested that the administrative and technical instructions, guidelines, and standards are either lacking or incomplete, and showed that the availability and adherence to reproductive health protocols at MoH maternities was not appropriate. Another study showed that most of respondents at the MoH neonatal units did not have a copy of Infection Prevention and Control (IPC) protocol, and most of them (73%) did not know about the existence of the Palestinian protocol (Awad, 2009).

Qualitatively, it is clear that except few interviewees, most the interviewees concurred with the view that credible, written, and approved quality standards were lacking at the MoH facilities, which affected the standardization, monitoring, and evaluation of the

process. Meanwhile, all of the interviewees believed that the compliance with quality standards was completely lost. However, there was a consensus that the protocols developed through the QI project and funded by the World Bank were not accessible, not updated, no training was organized on these protocols, and consequently, no commitment to their adherence.

> " There are no updated and credible guidelines, policies, rules,
> regulations, or clinical standards….most of the healthcare
> services are provided by the staff either on the basis of their
> own experience or on the basis of the knowledge gained
> through the various clinical education… hence, monitoring
> and evaluation are difficult…" Senior Top Manager.

4.2.1.6 Monitoring & Supervision

Although an adequate proportion of participants (41.6%) claimed that their performance are monitored and measured on an ongoing base, (54.7%) claimed that the only used tool for monitoring was the regular inspection and (54.4%) stated that the measuring indicators at their work setting were lacking. On the other hand, only (32.7%) stated that the supervisors at their work setting have not the skills of empowerment, directing, and rewarding, and (30.5%) stated that their supervisors do not identify the priorities for training in accordance to need assessment. This result could raise some concerns regarding the effectiveness of the measurements used in the MoH. Such concern is represented in both the unavailability of performance indicators and merely dependence on the periodic inspection for monitoring.

However, the study findings were congruent with other findings which highlighted that the use of performance indicators is still in general not well developed which minimizes the ability to monitor performance or evaluate the efficiency and quality of care (Hamad, 2009b). Another finding suggested that the supervision concepts are generally lacking in governmental health facilities and mostly focused in to detecting errors and blaming employees rather than providing coaching, support and training (PNGO, 2009).

4.2.1.7 Organizational Structure

Despite most respondents (68.3%) claimed that the roles and responsibilities of QI are not incorporated in the job description and (60.5%) claimed that the job description is not clear, of respondents (41.1%) claimed that the system relies on written rules, policies, and procedures while (41.8%) claimed that delegation of authorities and responsibilities is done as needed and only (38.8%) claimed that communication channels at their work setting are vague. The differences in responses could be inferred to the lack of clear policies and strategies supporting the structural change or institutionalization of QI. Other possible inference could be attributed to the unclear job description, besides the wide chain of command at the MoH that may contribute to the vague communication channels. Most organizations within the Palestinian health system lack clearly defined organizational structures, which regulate the relationships among the people and departments involved (PNGO, 2009). Another congruent finding revealed that job description or performance appraisal is not carried out effectively and only 25% of employees have job description (Hamad, 2001).

To conclude:

Considering the findings of the organizational factors shown in Table (4.2), the overall mean scores was (2.56). The mean scores ranged between (2.70 to 2.81) which indicate that all organizational factors (Culture, Structure, Management Commitment, Leadership, Monitoring & Supervision, Standards /Protocols, and HRM & Incentive) are perceived as barriers for the implementation of QI but with different degrees. The highest perceived barrier factor to QI was the top management commitment with mean score of (2.17) followed by the organizational culture (mean score 2.29), leadership (mean score 2.33), HRM (mean score 2.49) organizational structure (mean score 2.70), monitoring & supervision (mean score 2.80), and standards/protocols (mean score 2.81)

Table 4.2: Distribution of participants by perception about the organizational factors

No.	Items	Mean	MD	SD
1.0	**Organizational Factors**			
1.1	Top Management Commitment	2.176	2.250	0.637
1.2	Organizational Culture	2.298	2.200	0.799
1.3	Leadership	2.332	2.250	0.841
1.4	Human Resources Management & Incentive	2.493	2.429	0.480
1.5	Organizational Structure	2.701	2.600	0.716
1.6	Monitoring and Supervision	2.804	2.833	0.694
1.7	Standards / Protocols	2.813	2.833	0.579
	Overall	**2.564**	**2.036**	**0.446**

4.2.2 Infrastructure Factors:

4.2.2.1 Health Information System

The analysis of the HIS items shows that the majority of participants stated that the access to data and information is limited, the functions of data collection, processing, analyzing, and dissemination are weak , and the clearly defined indicators to measure the performance and improvement at their work setting are lacking with the percentage of (64.3%,65.5%, and 67.3%) respectively. On the other hand, the information is not used in the planning and decision making for QI as stated by (69.5%) of the participants. Meanwhile, (53.4%) of the participants stated that the underreporting and incomplete documentation are generally obvious and (53.9%) stated that the system is not computerized at their work settings (Annex14). The finding reflects that the under utility of the information needed for healthcare management is hazardous, restricting the capacity to plan or assess performance. The study finding could be attributed to lack of well-defined standards to support the management of information system, resulting in an underdeveloped HIS. Other possible explanation could be attributed to that decision-making at the MoH is subjective rather than evidence based, resulting in the poor use of information. Such explanation is consistent with other finding suggested that decision making at the Palestinian health system is more judgmental and should be evidence based through an accurate and continuously updated health information system (Mataria et al., 2009; PNGO, 2009). On the other hand, the study shows that the indicators as a measurement tool are still unrecognized in the MoH context. This finding is supported with the finding of Hamad (2011) who reported that the use of performance indicators, the HIS data sources, data management and the information dissemination and use in decision-making are generally reflect the low performance in the GS. However, this could raise some concerns regarding the effectiveness of the current monitoring system, and could emphasize the need to enhance the culture of using the indicators based on agreed standards as a measurement tool for performance. Other relevant and supporting studies revealed that data collection, analysis, and reporting at the Palestinian HIS need further development (Abed, 2007; Mataria et al., 2009). Additionally, the study of Shalaby (2009) found that functioning reporting practices could be more a 'Habits Style' than a meaning full system. In fact, this is more crucial for MoH to have a strong HIS than elsewhere, as MoH is the largest

provider that provides about 70% of all healthcare services and the responsible one for supervision, regulation, and coordination with other service providers.

Qualitatively, the interviewees were clear that there were some strong and weak sides in the current HIS but they underlined that there were definite opportunities to build upon the available strengths. Many of them agreed that the process of data collection and data analysis were acceptable to a certain degree, while the majority believed that the data management and data dissemination were weak. On the other hand, all of the interviewees concurred of that the planning and decision making were not data based. Measurement of the performance was widely lacking as perceived by the majority. However, few of the interviewees reported that the MoH system was not fully computerized, and the documentation and reporting practices were not properly implemented.

> "Despite the exerted efforts aimed at strengthening the current HIS, it
> still needs more steps to go forward….we have much data but we do not
> utilize or use the processed data in the improvement processes ". Senior
> Top Manager.

4.2.2.2 Financial Support

The findings show that of respondents (75.1%) believed that lack of financial support from donor institutions does not affect negatively the implementation of QI, and the vast majority of respondents (79.3%) believed that MoH does not allocate adequate budget for the implementation of QI activities. Although (46.1%) of respondents believed that MoH can not implement the activities of QI without spending much or extra money, (46.4%) believed that cost containment and efficiency of services provision facilitate the implementation of QI activities. The mean score of such responses is closely located around the neutral line (Mean = 2.95), indicating that the financial support was not perceived as a barrier for the implementation of QI. However, the variation of responses could as a result of that quality concept and philosophy is still neither recognized nor institutionalized in the MoH context, and most of the MoH personnel were not exposed to a systematic training about the quality costs. However, there are some studies suggest that financial support is significantly associated with greater scope and intensity of hospital-level QI implementation (Alexander et al., 2006; Gross et al., 2008).

Financial support was one of the most arguable issues elicited through the in depth interviews, as most of the interviewees believed that money was not a barrier in the implementation of QI whereas fewer believed that money was the main driver in the implementation of QI activities:

> " The shortage of funds is not a big issue because quality is based on the most fundamental things. If I smiled to the patients, provided them with the necessary information and the proper education, the outcomes will be great without spending much money. I think that our problem is in the financial management and the cost effectiveness due to the MoH centralized structure." Health Expert.

> " The implementation of QI activities require significant funds mainly in the first stages in order to ensure the availability of the resources and reward the personnel." Director of QI Unit.

Considering the political split, the majority of interviewees agreed upon the negative impact of the political situation on the implantation of QI activities.

> " I feel that the political division has negatively affected the personnel attitude, in some cases encouraging them to be not disciplined , because of the un availability of the penalty and reward actions. Furthermore, the MoH has lose the highly qualified personnel and local expert". Health Expert.

> " The political situation forced the donors to freeze the support to the developmental projects. Furthermore, the political siege prevented the public health sector from adequate supply of drugs and disposables". Senior Top Manager.

4.2.2.3 Material Resources

Although (65.7%) of participants stated that there were not enough equipment, instruments, and supplies at their work settings and (57%) suggested that they can not do their tasks well in the absence of supplies and equipment. The vast majority (84.8%) stated that the shortage of equipment and supplies does not affect negatively the implementation of QI. The mean score of such responses is closely located around the neutral line (Mean = 3.10), indicating that the material resources were not perceived as

a barrier for the implementation of QI. The possible explanation of those results could be attributed to the proper utilization of the existing resources at the MoH. Such utilization let the participants not to perceive the material resources as a barrier. However, it was reported by WHO (2011) that 38% of drugs and disposables were out of stock in GS in early 2011 and around 30% of vital medical equipment were lacking. Another recent report conducted in Gaza by WHO and UNDP (2011) revealed that 65% of MoH hospitals' infrastructure and 50% of PHCs' infrastructure were inadequate for provision of quality healthcare services.

To conclude:

Table (4.3) shows that the overall mean score for the infrastructural factors was (2.77). The mean scores ranged between (2.48 to 3.10) which indicate that not all the infrastructural factors were perceived as barriers to the implementation of QI. The highest perceived infrastructural barrier to QI was the HIS with mean score of (2.48) while the financial support with mean score (2.95) and the material resources with mean score (3.10) were not perceived as a barrier.

Table 4.3: Distribution of participants by perception about the infrastructural factors

No.	Items	Mean	MD	SD
2.	**Infrastructural Factors**			
2.1	Health Information System	2.480	2.429	0.479
2.2	Financial Support	2.957	3.000	0.422
2.3	Material Resources	3.108	3.000	0.402
	Overall	**2.770**	**2.800**	**0.301**

4.2.3 Individual Factors:

4.2.3.1 Staff Training

The vast overwhelming majority of participants (90.2%) claimed that the shortage of quality expert trainers is clear, while the vast majority of participants (81.6%) claimed that most employees are not well trained about QI concepts, principles, tools, and activities. Of participants (78.3%) stated that they are not oriented to the concepts, principles, and tools of QI and they need training in these concepts and principles whereas (47.9%) stated that the on job training is not the reliable used method to raise employees' knowledge and skills(Annex15). Such responses indicate that the awareness about QI at the MoH is still lacking. The study result could be explained by the fact that

the training at the MoH often targets more the technical practices than the quality related issues. Other possible explanation could be attributed to the absence of well defined training strategies to build the capacities towards the QI concepts, principles, and tools. This was supported by the finding of Hamad (2011) who revealed that the provided training at the MoH maternities is frameless, and on the job training is either lacking or not well structured in most facilities. The latter author suggested that the provided training programs had failed to improve the quality of services and to motivate employees. According to the same source, it was revealed that most of the surveyed facilities do not have clear training system, national training database, or structured programs for investment in human resources (Hamad, 2011). Another study found that the orientation towards the TQM concepts was weak (El Kahlout, 2004). However, many studies identified poor education and training on the TQM as a major obstacle in the development and implementation of TQM initiatives and the (Dayton, 2001; Huq & Martin, 2000; Pun, 2001; Rao et al., 1999; Thiagarajan & Zairi, 1998; Yusof & Aspinwall, 2000; Zhang et al., 2000).

By analyzing the qualitative date, it is clear that most of the interviewees agreed upon that training in the MoH is limited, not effective, and not based on the actual needs. The informants believed that MoH does not have a strategic plan addressing the training strategies for human resources.

> " The in service education and on the job training is neither
> systematic nor effective…the training depends mainly on
> the availability of donors fund…" Health Expert.

4.2.3.2 Staff Engagement

Of respondents (58.7%) stated that engagement of technical staff in QI planning and decisions is limited while (50.9%) stated that not all the employees have the choice to be involved in QI activities and decisions. However, (53.9%) stated that top and middle managers are the responsible for QI planning and decisions making (Annex16). Such finding reflects the poor communication among the higher management levels with the subordinate personnel. The possible explanation for this perception is the centralized dominant structure in the MoH where the planning and decision making is carried out at the higher levels of management. This finding is in agreement with the findings of El Farra (2003) who found that the strategic planning is mostly carried out by the top

management team with very limited involvement of the subordinates; meanwhile Hamad (2009b) showed the limited personnel involvement in decision-making as a result of the predominant culture of centralization.

However, it was revealed by the literature that staff engagement and participation is crucial for the successful implementation of QI (Ahmadi & Helms, 1995; Kennedy et al., 1999; Mills et al., 2003; Solanti et al., 2003; Weiner et al., 2006).

Qualitatively, the majority of the interviewees believed that the involvement of the practitioners in planning, decision making, and improvement processes was very limited. They considered that such involvement was limited at various managerial levels. Only one interviewee believed that the MoH provided certain opportunities for practitioners such as physicians and nurses to actively participate in planning and improvement processes and their suggestions are considered.

> " The top managerial levels including the general directors and
>   unit/department directors often discuss and make the decisions
>   during regular staff meetings or through the formed committees
>   …. meanwhile, participation of some practitioners in QI projects
>   or process improvement is obvious…".Senior Top manager.

4.2.3.3 Staff Attitude

Only (36.2%) of the respondents stated that Palestinian health care system can not be improved, while the vast majority (88.5%) stated that the implementation of QI is the answer for quality related problems and (55.7%) stated that implementation of QI is feasible and can be applied at MoH facilities. Such responses refer to the relatively positive attitude among MoH staff toward the implementation of QI. This should be totally considered as a success factor of the implementation of any future QI initiatives. The study finding contradicts with other finding which revealed that knowledge, attitudes and behavior of the personnel are barriers to QI initiatives (Cabana et al., 1999).

4.2.3.4 Staff Time & Workload

The findings show that the majority of respondents (77.1%) believed that the implementation of QI is not time consuming and (54.9%) believed that such implementation does not add extra burden to the assigned tasks. On the other hand, the vast majority (86.2%) believed that the tasks assignment permits more time for the implementation of QI activities and (64.7%) believed that employees can manage the time to cope with the over workload to implement the activities of QI. This finding could be seen a strength point to be invested along the implementation of QI activities. However, the study finding is consistent with the finding of El Dokki (2006) who revealed that the staff time & workload were not barriers to the implementation of TQM programs, whereas it contradicts with the finding of another study which showed that the main external factors associated with the failure of the QI program included shortage in staff and the lack of time (François et al., 2008).

To conclude:

The overall mean scores for the individual factors are (3.05) (Table 4.4). The mean scores ranged between (2.53 to 3.58) indicating that not all the individual factors were perceived as barriers to the implementation of QI. The highest perceived individual barrier to QI was the staff training with mean score of (2.53) followed by the staff engagement with mean score of (2.57). Meanwhile, the staff attitude with mean score (3.42) and the staff time & workload with mean score (3.58) were not perceived as barriers.

Table 4.4: Distribution of participants by perception about the individual factors

No.	Items	Mean	MD	SD
3.0	**Individual Factors**			
3.1	Staff Training	2.532	2.500	0.710
3.2	Staff Engagement	2.573	2.600	0.432
3.3	Staff Attitude	3.422	3.400	0.496
3.4	Staff Time & Workload	3.584	3.600	0.639
	Overall	**3.052**	**3.052**	**0.330**

Table (4.5) shows that the mean scores of the organizational, individual, and infrastructural factors ranged between 2.564 and 3.052. The least mean was the organizational factors (2.564) followed by the infrastructural factors (2.77) whereas the highest mean were the individual factors (3.052). This shows that the most common

barriers to the implementation of QI represented at the organizational level followed by the infrastructural factors with an overall mean score of (2.77). The least perceived barriers to the implementation of QI were the individual factors with overall mean score of (3.05). It is worth mentioning that the individual factors comprise sub factors that reached the level of being a barrier to the implementation of QI.

Table (4.5): Comparison between the total Organizational, individual, and infrastructural factors:

No.	Items	Mean	MD	SD
1.	**Organizational Factors**	2.564	2.036	0.446
2.	**Infrastructural Factors**	2.770	2.800	0.301
3.	**Individual Factors**	3.052	3.052	0.330
4.	**Total**	2.731	2.537	0.446

Figure (4.5) shows the most perceived barriers to the implementation of QI which are; the top management commitment followed by the organizational culture, leadership, HIS, HRM & incentive, staff training, and staff engagement.
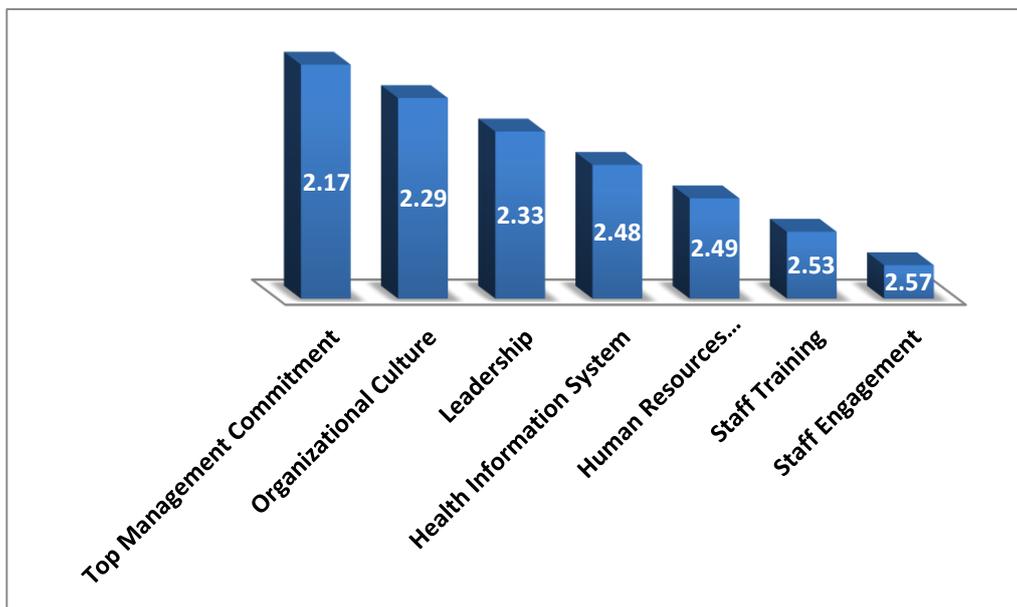
Figure (4.5): The most perceived factors hindering the implementation of QI at MoH

4.3 Differences in perceptions about the organizational, individual, and infrastructural factors

4.3.1 Gender

Table (4.6) The differences in perception about the organizational, individual, and infrastructural factors by gender:

No.	Factors	Sex	N	Mean	SD	t	Sig.
1.	Organizational Factors	Male	257	2.504	0.443	-3.698	0.000
		Female	140	2.675	0.431		
2.	Individuals Factors	Male	256	3.032	0.342	-1.723	0.086
		Female	139	3.093	0.324		
3.	Infrastructural Factors	Male	257	2.751	0.300	-2.090	0.037
		Female	140	2.817	0.301		
4.	Overall	Male	256	2.689	0.335	-3.462	0.001
		Female	140	2.808	0.314		

An independent t-test was used to compare the means of the organizational, individual, and infrastructural factors and their overall score in reference to the gender (Table 4.6). The findings show statistically significant differences between male and female regarding the organizational factors (p=0.000) with higher mean (2.67) for female than male (2.50), and with the infrastructural factors (p=0.037) with higher mean score (2.81) for female than male (2.75). Meanwhile there was no statistically significance differences between male and female regarding the infrastructural factors (p=0.086). Despite this result, the analysis showed a statistically significant differences between male and female regarding the overall factors (p=0.001) with higher mean (2.80) for female than male (2.68). This implies that male individuals perceive the barriers for the implementation of QI higher than female ones.

Such variation could be explained through the dominant climate at the MoH encouraging male individuals to be involved in planning process and decision-making much more than female ones. This makes males more exposed to management related problems which may direct males to perceive the barriers more than females. Such explanation was supported by the key informant interviewees. However, this finding is not congruent with the findings of EL Dokki (2006) which showed statistically insignificant differences between male and female with components of TQM. It can be concluded that gender plays a role in the perception of the barriers to the implementation of QI. This may call for considering the male individuals much more in the QI related strategies.

4.3.2 Age

Table (4.7) The differences in perception about the organizational, individual, and infrastructural factors by age:

No.	Factors	Age group	N	Mean	SD	F	Sig.
1.	Organizational Factors	30 Yrs and less	83	2.516	0.497	0.608	0.610
		From 31 to 40 Yrs	172	2.595	0.394		
		From 41 to 50 Yrs	113	2.558	0.438		
		More than 50 Yrs	29	2.551	0.603		
		Total	397	2.564	0.446		
2.	Individual Factors	30 Yrs and less	83	3.023	0.346	1.371	0.251
		From 31 to 40 Yrs	172	3.078	0.323		
		From 41 to 50 Yrs	113	3.063	0.325		
		More than 50 Yrs	29	2.956	0.415		
		Total	397	3.053	0.336		
3.	Infrastructural Factors	30 Yrs and less	83	2.758	0.312	1.886	0.131
		From 31 to 40 Yrs	172	2.746	0.302		
		From 41 to 50 Yrs	113	2.808	0.262		
		More than 50 Yrs	29	2.862	0.388		
		Total	397	2.774	0.302		
4.	Overall	30 Yrs and less	83	2.693	0.369	0.529	0.662
		From 31 to 40 Yrs	172	2.746	0.294		
		From 41 to 50 Yrs	113	2.739	0.318		
		More than 50 Yrs	29	2.716	0.468		
		Total	379	2.731	0.332		

One-way ANOVA test was used to examine the differences in perception about the organizational, individual, and infrastructural factors in reference to age. Table (4.7) shows statistically insignificant differences between the age groups regarding the organizational, individual, and infrastructural factors ($p > 0.05$). Although the younger age with the least mean score (2.69) often appear to perceive the barriers much more than older one, the differences did not reach the level of significance. The study result is consistent with the results of EL Dokki (2006) who found insignificant differences between the different age groups in reference to the components of TQM. A possible explanation for the study result could be attributed to that quality concepts and principles were not institutionalized at the MoH resulting in similar perception regardless the age group.

4.3.3 Qualification

Table (4.8) The differences in perception about the organizational, individual, and infrastructural factors by qualification:

No.	Factors	Qualification	N	Mean	SD	F	Sig.
1.	**Organizational Factors**	Diploma	88	2.601	0.435	1.147	0.330
		Bachelor	247	2.571	0.426		
		Master	51	2.512	0.525		
		Decorate	11	2.370	0.561		
		Total	397	2.564	0.446		
2.	**Individual Factors**	Diploma	88	3.009	0.344	1.297	0.275
		Bachelor	247	3.054	0.331		
		Master	51	3.126	0.343		
		Decorate	11	3.053	0.355		
		Total	395	3.053	0.336		
3.	**Infrastructural Factors**	Diploma	88	2.816	0.318	0.856	0.464
		Bachelor	247	2.760	0.290		
		Master	51	2.784	0.321		
		Decorate	11	2.727	0.329		
		Total	397	2.774	0.302		
4.	**Overall**	Diploma	88	2.746	0.341	0.296	0.828
		Bachelor	247	2.731	0.315		
		Master	51	2.722	0.385		
		Decorate	11	2.644	0.410		
		Total	397	2.731	0.332		

One-way ANOVA test was used to examine the differences in perceptions about the organizational, individual, and infrastructural factors in reference to qualification. Although the test showed generally that the more educated individuals have lower means, the differences did not reach statistically significant levels between the levels of qualification regarding the organizational, individual, and infrastructural factors ($p >$ 0.05). Such finding means that the MoH individuals have the similar perception toward the barriers to QI regardless of their qualifications. The study result is consistent with the results of EL Dokki (2006) who found insignificant differences between the different educational levels with the components of TQM. This lack of significant differences may be the result of that the quality concepts and philosophy is not institutionalized among MoH individuals till now.

4.3.4 Specialty

Table (4.9) The differences in perception about the organizational, individual, and infrastructural factors by specialty:

No.	Factors	Specialty	N	Mean	SD	F	Sig.
1.	Organizational Factors	Medicine	113	2.440	0.440	6.452	0.000
		Nursing	155	2.532	0.411		
		Pharmacy	30	2.844	0.362		
		Lab	25	2.661	0.504		
		Radiology	20	2.455	0.456		
		Physiotherapy	8	2.564	0.555		
		Administration	46	2.792	0.420		
		Total	397	2.564	0.446		
2.	Individual Factors	Medicine	113	3.016	0.353	2.274	0.036
		Nursing	155	3.015	0.317		
		Pharmacy	30	3.139	0.350		
		Lab	25	3.217	0.369		
		Radiology	20	3.113	0.325		
		Physiotherapy	8	3.184	0.264		
		Administration	46	3.080	0.315		
		Total	397	3.053	0.336		
3.	Infrastructural Factors	Medicine	113	2.710	0.288	3.303	0.003
		Nursing	155	2.756	0.293		
		Pharmacy	30	2.858	0.251		
		Lab	25	2.843	0.390		
		Radiology	20	2.813	0.309		
		Physiotherapy	8	2.667	0.298		
		Administration	46	2.904	0.291		
		Total	397	2.774	0.302		
4.	Overall	Medicine	113	2.643	0.333	5.788	0.000
		Nursing	155	2.698	0.310		
		Pharmacy	30	2.921	0.270		
		Lab	25	2.838	0.389		
		Radiology	20	2.693	0.333		
		Physiotherapy	8	2.742	0.373		
		Administration	46	2.887	0.300		
		Total	397	2.731	0.332		

One-way ANOVA test was used to examine the differences in perceptions about the organizational, individual, and infrastructural factors in reference to specialty. The analysis show a highly statistically significance differences between the different specialties in reference to the overall barrier factors (P=0.000). The significance was shown in organizational (P=0.000), individual (P=0.036), and infrastructural factors (P=0.003). The findings show that the groups of physicians, nurses, x-ray technicians, and physiotherapists have lower mean score than other groups. In other words, these findings imply that physicians, nurses, x-ray technicians, and physiotherapists perceive the overall barriers for QI more than pharmacists and administrators groups. It is worth pointing that Shalaby (2009) found significant differences between the participants' perception to components of learning organization at the MoH with the type of

qualification in favor of the administrators. However, the possible reasonable explanation for the differences could be attributed to that groups of physicians, nurses, x-ray technicians, and physiotherapists provide higher package of healthcare services directly to the patients and this make them more closed to the different technical and managerial problems. Such explanation was totally supported by the key interviewees. Another possible explanation is that the groups of physicians and nurses are frequently involved in the planning and training efforts. Besides, the later groups seem to occupy much more managerial positions. However, such finding should be considered as the latter groups occupy the higher percentages at the MoH.

4.3.5 Job Position

Table (4.10) The differences in perception about the organizational, individual, and infrastructural factors by job position:

No.	Factors	Position	N	Mean	SD	F	Sig.
1.	**Organizational Factors**	Practitioner	280	2.521	0.440	3.386	0.018
		Department head	89	2.648	0.470		
		Supervisor	20	2.760	0.288		
		Depart. director	8	2.665	0.513		
		Total	397	2.564	0.446		
2.	**Individual Factors**	Practitioner	280	3.025	0.345	3.038	0.029
		Department head	89	3.093	0.299		
		Supervisor	20	3.213	0.254		
		Depart. director	8	3.191	0.456		
		Total	397	3.053	0.336		
3.	**Infrastructural Factors**	Practitioner	280	2.755	0.306	2.202	0.087
		Department head	89	2.797	0.297		
		Supervisor	20	2.900	0.242		
		Depart. director	8	2.900	0.228		
		Total	397	2.774	0.302		
4.	**Overall**	Practitioner	280	2.695	0.331	4.415	0.005
		Department head	89	2.795	0.334		
		Supervisor	20	2.903	0.196		
		Depart. director	8	2.845	0.390		
		Total	397	2.731	0.332		

One-way ANOVA test was used to examine the differences in perceptions about of the organizational, individual, and infrastructural factors in reference job position. Table (4.10) shows a statistically significance difference between the practitioners and different managerial levels regarding the overall barrier factors (P=0.005) with lower mean score for the practitioners. The significance were in the organizational (P=0.018) and individual factors (P=0.029). In other words, the findings show that practitioners generally perceive the barriers to QI more than other different managerial levels. The

study result is inconsistent with the results of EL Dokki (2006) who found insignificant differences between the different job positions regarding to the components of TQM. However, the study finding differences could be attributed to the fact that practitioners work directly with patients and do not participate in the decision making process, which makes them perceive the barriers to QI more than the managerial individuals. Other possible explanation reported by the key interviewees, that the practitioners are the subordinates with lower motivation, whose mission is to execute what different managerial levels suggest. However, such finding should be completely considered as the practitioners occupy the higher percentages at the MoH.

4.3.6 Salary

Table (4.11) The differences in perception about the organizational, individual, and infrastructural factors by salary:

No	Factors	Salary	N	Mean	SD	F	Sig.
1.	**Organizational Factors**	2000 NIC and less	61	2.575	0.469	2.566	0.054
		From 2001 to 3000 NIC	131	2.638	0.425		
		From 3001 to 4000 NIC	138	2.540	0.421		
		More than 4000 NIC	67	2.461	0.497		
		Total	397	2.564	0.446		
2.	**Individual Factors**	2000 NIC and less	61	3.064	0.319	0.393	0.758
		From 2001 to 3000 NIC	131	3.051	0.321		
		From 3001 to 4000 NIC	138	3.069	0.343		
		More than 4000 NIC	67	3.016	0.370		
		Total	397	3.053	0.336		
3.	**Infrastructural Factors**	2000 NIC and less	61	2.802	0.321	0.901	0.441
		From 2001 to 3000 NIC	131	2.757	0.294		
		From 3001 to 4000 NIC	138	2.797	0.303		
		More than 4000 NIC	67	2.737	0.297		
		Total	397	2.774	0.302		
4.	**Overall**	2000 NIC and less	61	2.744	0.343	1.457	0.226
		From 2001 to 3000 NIC	131	2.765	0.315		
		From 3001 to 4000 NIC	138	2.725	0.320		
		More than 4000 NIC	67	2.662	0.373		
		Total	397	2.731	0.332		

One-way ANOVA test was used to examine the differences in perceptions about the organizational, individual, and infrastructural factors in reference to salary. The analysis shows statistically insignificant difference between the groups of lower and higher salaries regarding the organizational, individual, and infrastructural factors (P > 0.05). This implies that the difference in the salaries does not affect the perception of the barriers to QI at the MoH. This could be explained as the promotion of the MoH individuals is not based upon their performance.

4.3.7 Years of Experience

Table (4.12) The differences in perception about the organizational, individual, and infrastructural factors by years of experience:

No.	Factors	Experience	N	Mean	SD	F	Sig.
1.	Organizational Factors	10 Yrs and less	191	2.545	0.453	0.347	0.707
		From 11 to 20 Yrs	147	2.583	0.418		
		More than 20 Yrs	59	2.580	0.494		
		Total	397	2.564	0.446		
2.	Individuals Factors	10 Yrs and less	191	3.037	0.341	0.659	0.518
		From 11 to 20 Yrs	147	3.079	0.334		
		More than 20 Yrs	59	3.043	0.328		
		Total	397	3.053	0.336		
3.	Infrastructure Factors	10 Yrs and less	191	2.740	0.300	3.337	0.037
		From 11 to 20 Yrs	147	2.790	0.306		
		More than 20 Yrs	59	2.850	0.285		
		Total	397	2.774	0.302		
4.	Overall	10 Yrs and less	191	2.709	0.338	0.841	0.432
		From 11 to 20 Yrs	147	2.749	0.314		
		More than 20 Yrs	59	2.758	0.358		
		Total	397	2.731	0.332		

One-way ANOVA test was used to examine the differences in perceptions about the organizational, individual, and infrastructural factors in reference to years of experience. The test shows statistically significant differences between the groups of lower and higher years of work experiences in perceiving the infrastructural factors (P=0.037), as the personnel with lower years of experience perceive the infrastructural barrier factors more than the higher work experienced. The analysis shows statistically insignificant differences between the groups of lower and higher years of work experiences in perceiving the organizational and individual factors (P > 0.05). However, the differences in the years of experience have no effect on the perception of the overall factors, as the differences did not reach the significance level (P > 0.05). This finding is consistent with the finding of El kahlout (2004) which revealed that the differences between the groups of different years of work experiences with the components of TQM were insignificant. This might reflect that regardless the length of work experiences, the MoH personnel have similar perception toward the barriers to QI. One possible explanation for such finding is that the involvements in QI activities neither target the younger age who have the potentials nor the older ones who have the experience.

4.3.8 Work Setting

Table (4.13) The differences in perception about the organizational, individual, and infrastructural factors by the work setting:

No.	Factors	Sex	N	Mean	SD	t	Sig.
1.	**Organizational Factors**	Hospital	262	2.974	0.398	1.164	0.245
		PHC	135	2.922	0.465		
2.	**Individual Factors**	Hospital	262	3.099	0.411	-0.626	0.531
		PHC	135	3.126	0.385		
3.	**Infrastructural Factors**	Hospital	262	2.485	0.470	0.324	0.746
		PHC	135	2.469	0.498		
4.	**Overall**	Hospital	262	2.779	0.285	0.452	0.652
		PHC	135	2.765	0.332		

An independent t-test was used to compare the means of the organizational, individual, and infrastructural factors and their overall score in reference to the work setting. Table (4.13) shows statistically insignificance differences between the personnel working at hospitals and PHC centers regarding the organizational, individual, and infrastructural factors (P > 0.05). This implies that the personnel working at the hospitals and PHC centers have similar perception towards the barriers to the implementation of QI. Such finding could be attributed to the fact that hospitals and PHC centers are not working in isolated systems and are affected by similar internal and external environmental factors.

4.4 The status of QI implementation at the MoH (Dependent variable):

Table (4.14): Distribution of responses by the status of the implementation of QI:

No.	Items	Yes		No		DK		Total	
		No.	%	No.	%	No.	%	No.	%
1	At your work setting now, is there a quality improvement department?	114	28.7	227	57.2	56	14.1	397	100.0
2	At your work setting now, is there a quality improvement coordinator or facilitator?	108	27.2	221	55.7	68	17.1	397	100.0
3	At your work setting now, is there a quality improvement team or committees?	194	48.9	144	36.3	59	14.9	397	100.0
4	Did your work setting implement quality improvement activities in the last 3 years?	95	23.9	195	49.1	107	27.0	397	100.0
5	Have you ever been involved in quality improvement implementation activities	76	19.1	321	80.9	0	0.0	397	100.0
6	Does your work setting has a clear written plan & strategies for quality improvement?	44	11.1	206	51.9	147	37.0	397	100.0
7	Does your institution or work setting has a written work related standards or protocols?	69	17.4	200	50.4	128	32.2	397	100.0
	Overall	**Mean 1.763/7**		**MD 1.00**		**SD 1.870**			

The researcher used eight questions to evaluate the dependent variable (the implementation of QI) at MoH. The QI implementation factors were evaluated quantitatively according to a scale ranging from 2 for "yes", 1 for "no", and 0 for "don't know". A composite score was calculated for the "yes" responses. The results were as the following:

The analysis shows that (57.2%) of participants stated that they have not a QI department at their work setting, and (55.7%) stated that they do not have a QI coordinator at their work setting. Although (48.9%) of participants stated that they have a QI committee at their work settings, (44.8%) of them stated that the committee does not meet regularly. However, (49.1%) of participants stated that the QI activities were not implemented in their work settings during the last three years. The vast majority of respondents (80.9%) stated that they are not involved or participated in QI activities. On the other hand, (51.9%) of participants stated that they do not have a clear written plan and strategies for QI at their work setting, meanwhile, (50.4%) of participant stated that they do not have a written work related standards or protocols at their work setting.

Such findings have many indications such as; the not well-defined QI related structure, the limited QI related activities, the poor planning, and the not well standardized processes. However, the total score of the implementation of QI components reached (25.1%) with mean score of 1.76/1 (median 1.00). The results show that the implementation of QI at MoH facilities is limited. This could be associated with the current situation of the imposed siege on the GS resulting in the freezing of most developmental projects such as the QI and shifting the attention towards meeting the population urgent needs. However, it could be concluded that the institutionalization processes of QI is limited. Such conclusion is congruent by the finding of El Kahlout (2004) who revealed that the institutionalization of processes improvement is weak.

Through the key informant interviews, on the open-ended question of how to evaluate the implementation of QI activities at the MoH facilities during the last three years, there was a general consensus about the limited implementation of such activities. The interviewees described the implementation as scattered and unplanned. They concurred with the view that the implementation was limited in few activities distributed in selected areas at the hospitals or PHC centers, with the majority reported as infection

prevention and control, the safe delivery, patient's referral system, hospitals computerizing, appointment system and the medical file.

One key informant believed that MoH does not adopt a QI as an approach to improve the quality of healthcare services:

> " Despite the initiatives and efforts made by the MoH in the last years to
> improve the performance, I think that such efforts were fragmented,
> neither holistic, nor well-structured. Instead of being sustainable
> efforts, it can be said, the donor initiation was the main driver for such
> activities". Senior Manager.

Another interviewee considers the perception of the patients to evaluate the implementation of QI:

> " I think that the patients are not satisfied with the care provided at the
> MoH facilities. It is clear that the continuous complaints due to the
> poor quality of care indicate the weak implementation of QI.." Ex-
> Minister.

Although most of the interviewees highlighted that MoH has structurally established a central QI unit and QI committees at the hospitals and PHC centers, all of them agreed upon that the role and responsibilities of such committees were not clear:

> " The QI committees at the hospitals and PHC centers neither have a
> formal program nor they have an action plan addressing the QI, while
> those committee have focused only on such activities as the infection
> prevention and control…" Health Expert, Academic.

4.5 Correlation between organizational, individual, and infrastructural factors with the implementation of QI:

Pearson correlation test was used to investigate the association between the organizational, individual, and infrastructural factors with the implementation of QI at the MoH.

4.5.1 Organizational Factors:

Table (4.15): correlation between the implementation of QI and organizational factors:

No.	Items	r	Sig.
1.0	**Organizational Factors**		
1.1	Organizational Culture	0.077	0.127
1.2	Organizational Structure	0.255	0.000
1.3	Top Management Commitment	0.194	0.000
1.4	Leadership	0.156	0.002
1.5	Monitoring & Supervision	0.162	0.001
1.6	Standards / Protocols	0.039	0.438
1.7	Human Resources Management & Incentive	0.122	0.007
	Total	0.183	0.000

4.5.1.1 Culture:

Contrary to expectation, the analysis shows statistically insignificant correlation between organizational culture and the implementation of QI as r =0.077 and P > 0.05. The finding was congruent with the study showed that the correlation between organizational culture and quality of health care in 42 general practices was insignificant (Hann et al., 2007). On the other hand, this finding was inconsistent with the study showed that the correlation between the organizational culture and QI practices was significantly strong positive (Ababaneh, 2010). The lack of significant correlation as explained by the key interviewees is attributed to the lack of institutionalization of quality concepts at the MoH climate. However, the study finding could be explained by the view of that, the implementation of QI is more associated with other factors than the culture. Such explanation seems to be concurred with the finding shows that there is a little agreement in the current theoretical and empirical literature on the role culture plays as a predictor of the quality of health care (Hann et al., 2007). However, it is still unclear which set of shared beliefs and values is the most effective in fostering QI (Scott et al., 2003).

4.5.1.2 Structure:

The analysis shows a weak positive correlation between organizational structure and the implementation of QI as r =0.255 and P = 0.000. It is worth pointing that the association between the success of TQM program in an organization with a structure exhibited more flat and with minimum layers of management is significant (Huq & Martin, 2000). On the other hand, this result contradicts with Lee et al., (2002) who found no significant association between the presences of TQM department, TQM full staff, budget allocation and the success in implementation of TQM.

4.5.1.3 Top Management Commitment

The analysis shows a weak positive correlation between top management commitment and the implementation of QI as r =0.194 and P = 0.000. Such result is consistent with other results which found that the top commitment and support is correlated with the implementation of QI activities (Bradley et al., 2005; El Dokki, 2006; El Kahlout, 2004).

4.5.1.4 Leadership:

The analysis shows a weak positive correlation between leadership and the implementation of QI as r =0.156 and P = 0.002. Such result was consistent with other results which found that leadership role is associated with implementation of TQM (Alivi & Yasin, 2007; Bergman & Klefsjö, 2003; Greenberg & Baron, 2003**;** Hansson, 2003; Kaplan et al., 2010; Soltani, 2005; Sosik & Dionne, 1997**;** Yang & Christian, 2003). Contrary to that**,** Mills et al., (2003) found that leadership was not related to successful quality program initiation.

4.5.1.5 Monitoring & Supervision:

The analysis shows a weak positive correlation between monitoring & supervision and the implementation of QI as r =0.162 and P = 0.001. It is worth mentioning that monitoring and supervision are critical to the success of hospital QI practices (Marquez & Kean, 2002; Shaw, 2003). However, El Kahlout (2004) found a positive correlation between the use of measurement indicators and the implementation of TQM.

4.5.1.6 Standards / Protocols

The analysis shows a statistically insignificant correlation between standards/protocols and the implementation of QI as r =0.039 and P = 0.438. The result is inconsistent with the results found that increasing the degree of standardization and uniformity between practitioners, increase the efficiency and quality of healthcare (Davies & Harrison, 2003; Degeling et al., 2001; Degeling et al., 2003; March, 2006). However, the study finding might be explained by the view of that the implementation of QI is associated more with the existence of a supportive management and a transformational leadership that can set the quality vision.

4.5.1.7 Human Resources Management & Incentive

The analysis shows a weak positive correlation between HRM & incentives and the implementation of QI as r =0.122 and P = 0.007. The result was consistent with other studies that revealed the association between the HRM and the implementation of QI (Alirza et al., 2011; Oakland & Oakland, 2001). On the other hand, the study is concurred with the studies revealed a correlation between the personnel incentives and the implementation of TQM (El Dokki, 2006; El Kahlout, 2004).

4.5.2 Individual Factors:

Table (4.16): correlation between the implementation of QI and individual factors:

No.	Items	r	Sig.
2.0	**Individual Factors**		
2.1	Staff Engagement	0.155	0.002
2.2	Staff Training	0.188	0.000
2.3	Staff Attitude	0.089	0.077
2.4	Staff Time & Workload	0.093	0.065
	Total	0.215	0.001

4.5.2.1 Staff Engagement:

The analysis shows a weak positive correlation between staff engagement and the implementation of QI as r =0.155 and P = 0.002. The result is consistent with the result of El Dokki (2006) which revealed a positive correlation between the staff involvement and the implementation of QI. However, the staff involvement is associated with the success of TQM implementation program (Gross et al., 2008; Mills et al., 2003; Weiner et al., 2006).

4.5.2.2 Staff Training

The analysis shows a weak positive correlation between staff training and the implementation of QI as r =0.188 and P = 0.000. This finding is consistent with the findings of El Dokki (2006) and EL Kahlout (2004) which found the positive correlation between the staff training and the implementation of QI.

4.5.2.3 Staff Attitude

The analysis shows insignificant correlation between organizational staff attitude and the implementation of QI as r =0.089 and P = 0.077. Such finding could be attributed to the view of that the values of the quality concepts is still not institutionalized. However, it is worth mentioning that the practitioners' attitudes are important to the adherence to clinical practice guidelines (Cabana et al., 1999).

4.5.2.4 Staff Time and Workload

The analysis shows insignificant correlation between organizational staff time & workload and the implementation of QI as r =0.093and P = 0.065. The result was inconsistent with the result showed that the main external factors associated with the failure of the continuous quality management program included shortage in staff and the lack of time (François et al., 2008). The study finding could be attributed to the lack of quality standards or protocols, and in case they are available, the commitment to them is limited, notably the commitment to quality standards is critical to the implementation of QI and requires best utilization of working time.

4.5.3 Infrastructural Factors:

Table (4.17): Correlation between the implementation of QI and infrastructural factors :

No.	Items	r	Sig.
3.0	**Infrastructural Factors**		
3.1	Financial Support	0.139	0.006
3.2	Material Resources	0.116	0.021
3.3	Health Information System	0.225	0.000
	Total	0.260	0.000

4.5.3.1 Financial Support

The analysis shows a weak positive correlation between financial support and the implementation of QI as r =0.139 and P = 0.006. The result is consistent with other

results which suggested that appropriate organizational infrastructure and financial support are significantly associated with greater scope and intensity of hospital-level QI implementation. (Alexander et al., 2006; Buciuniene et al., 2006).

4.5.3.2 Material Resources

The analysis shows a weak positive correlation between material resources and the implementation of QI as r =0.116 and P = 0.021. The result is consistent with the results found that the amount of resources allocated to the QI program, including funding to produce materials is associated with the success of the program (Gross et al., 2008).

4.5.3.3 Health Information System

The analysis shows a weak positive correlation between HIS and the implementation of QI as r =0.225 and P = 0.000. The result is consistent with the results found that the successful QI implementation is associated with the availability of HIS (Alexander et al., 2006; Blumenthal & Edwards, 1995; Gross et al., 2008; Meyer & Collier, 2001; Shortell, 1995b).

Table (4.18): Correlation between the organizational, individual, and infrastructural factors with implementation of QI:

No.	Items	r	Sig.
1.0	**Organizational Factors**	0.183	0.000
2.0	**Individual Factors**	0.215	0.001
3.0	**Infrastructural Factors**	0.260	0.000
	Total	0.236	0.000

Table (4.18) shows that the organizational, individual, infrastructural and overall factors have a weak positive correlation with the implementation of QI (P=000). This finding is consistent with the finding of El Dokki (2006) which found a weak positive correlation between the barriers of TQM and the implementation of TQM. However, individually and collectively, such findings confirm that these factors play a major role in the implementation of QI at the MoH facilities.

Through analyzing the qualitative data elicited by the key informants about the main barriers for the implementation of QI at the MoH facilities, all the interviewees were clear, objective, and in agreement that there are significant barriers affecting the

successful implementation of the QI. Unsurprisingly, the most frequently mentioned barrier was the lack of a strategic plan addressing the QI. In case these strategic plans exist, they are rarely translated into practical policies and operationalized (Hamad, 2009b). However, such response was highly consistent with questionnaire findings where the majority of participants stated that they do not have a plan for the implementation of QI at their settings.

> " There is no well-defined vision towards the implementation of
> QI at the MoH. There are no strategies, policies, or short and
> long term action plans to support the implementation of QI " Health
> Expert.

However, the commonly mentioned barriers by the majority of the key informants were; inadequate top management commitment, scarcity of financial support & material resources, unavailability of performance standards, lack of well trained personnel, personnel shortage, unsupportive culture, unawareness towards QI, the centralized system, and poor monitoring. These responses were congruent with the results elicited from the questionnaire findings.

4.6 The factors strengthening the implementation of QI at the MoH:

Responding to the question regarding the suggestions to strengthen the implementation of QI at the MoH facilities, the most frequently mentioned suggestions by the key informants were:

- Targeting QI as a priority in the strategic planning
- Dissemination the quality culture
- Securing financial resources for QI programs
- Updating the current protocols and developing other standards
- Introducing financial and non-financial incentives program
- Involving various categories of the health staff into QI
- Training on quality concepts
- Regular monitoring and evaluation, and
- Changing the attitude of the personnel.

Chapter 5

Conclusion and Recommendations

5.1 Conclusion

The study was conducted to identify the main perceived barriers that could influence the successful implementation of QI at the MoH facilities. It revealed many important findings that could help in enhancing the implementation of QI initiatives in the future and could provide an effective framework to assist the health care planners to set the best strategies for QI. In the following paragraphs, a brief summary of the findings of the study and its conclusions will be illustrated.

The study utilized a descriptive, analytical cross sectional design with a triangulated approach. The researcher targeted all the eligible healthcare providers at the MoH's hospitals and PHC centers. A proportional multi stratified randomized sampling was used. Both self-developed self-administered questionnaires and key informant interviews were used as a data collection tools. High response rate of 88.2% ensured high validity of the study findings. Other measures such as the experts' validation and piloting were used to assure the questionnaire validity. The reliability reached the accepted level, as the Cronbach Alpha coefficient was 0.78.

The total number of the study population was 7578 and the study sample was 450 with highly accepted response rate (88.2%). In consistency with the general gender distribution in the hospitals and PHC centers, two third of respondents were male. A promising demographic were found as almost two thirds of respondents were aged up to 45 years and the majority were holding at least the Bachelor degree. More than two thirds of respondents were nurses and physicians and the majority of respondents were practitioners (without managerial positions). In congruence with the geographical distribution, two thirds of respondents have their work setting in the hospitals. A limited group of respondents has an accepted salary if compared with others working in the NGOs. A considerable portion had long work experience as more than the half had work experience of more than 10 years.

The governmental healthcare sector is faced with major challenges due to many organizational and non-organizational obstacles. This study revealed considerable barriers and difficulties affecting the proper implementation of QI. The obstacles that

were revealed from this study were not different from those that were reported in the literature, not only from health care but from other industries as well.

This study pointed that top management commitment was the first perceived barrier towards the successful implementation of QI. It was found that the management did not allocate adequate organizational resources (e.g., finances, people, time, and equipment) for QI activities as revealed by the vast majority of respondents, and around three quarters of respondents revealed that management is focusing on satisfying emergency health needs rather than supporting the implementation of QI activities. Meanwhile, the management did not address the QI as a priority in planning and policies making as pointed out of about two thirds of respondents.

The second barrier was organizational culture. The study found that neither the values of achievements & innovations were appreciated nor the values of decision-making were consensus-based as revealed by almost three quarters of the respondents. More than half of the respondents pointed out that the team working were weak and unsuccessful.

The third barrier was leadership. The study found that the leadership at MoH neither inspirational that can influence the abilities to achieve tasks nor has the capacities for empowerment, guidance, and direction towards performance improvement as concurred by around two thirds of respondents. Besides, the leaders lack the skills for effective decisions making & problem solving techniques and lack the capacities to manage change during process improvement as concurred by a round two thirds of respondents.

The fourth barrier was the HRM & incentives. Despite only about the half of respondents believed that MoH neither has a clear strategies & policies for staffing & recruiting the qualified employees nor training & development policies, two thirds concurred that HRM at MoH was weak and ineffective. On the other hand, the vast majority concurred that MoH had not a clear incentive system. The vast overwhelming majority believed that absence of the financial incentives hindered the success of QI implementation, and a bout three quarters believed that MoH was unable to provide financial incentive due to the limited budget. Furthermore, the vast majority believed that non-financial incentives were neglected at their work setting, and the MoH was adopting the system of punishment rather than rewards.

The fifth barrier was the HIS. The access to data and information was limited, the functions of data collection, processing, analyzing, and dissemination were weak, and the clearly defined indicators to measure the performance and improvement at the MoH facilities were lacking as revealed by almost two thirds of respondents. Further, the information was not used in the planning and decision making for QI as pointed by more than two thirds of respondents. On the other hand, the underreporting and incomplete documentation were generally obvious and the system was not computerized as pointed out of more than the half.

The sixth barrier was the staff training. The study found that most employees were not well trained about the QI concepts, principles, tools, and activities as pointed out of the vast majority of respondents. The shortage of quality expert trainers at the MoH was obvious as be revealed by the vast overwhelming majority. Although the study found that the on-the-job training was not the reliable used method to raise employees' knowledge as revealed by around the half of respondents, it was found that the employees themselves were not oriented to quality concepts and principles and they were in need for relevant training. Such conclusion was concurred by the majority of respondents.

The last barrier was the staff engagement. It was found that engagement of technical staff in QI planning and decisions was limited and only the top and middle managers were the responsible for QI planning and decisions making as pointed out of more than the half of respondents. Moreover, the study found that not all the employees had the choice to be involved in QI activities and decisions as pointed by half of respondents.

Variations in the perception towards the barrier factors for the implementation of QI were found among respondents by the different demographic characteristics. Male individuals revealed lower scores in most of the barrier factors for QI in comparison to females and most these differences reached statistically significant levels. Also, the groups of physicians, nurses, x-ray technicians, and physiotherapists revealed lower scores than other groups whereas all these differences reached statistically significant levels. Statistically significant differences were mostly found among the different job positions in the perception of the barrier factors for QI with lower scores for the technical individuals in comparison to other managerial ones.

It is found that the implementation of QI at the MoH facilities was generally limited. Such conclusion was shown mainly in the poor quality structure represented in the QI units, coordinators, committees, plans & strategies, and quality standards. Generally, it was found that the implementation of QI activities in the last three years and the participation in such activities is inadequate.

The correlation between the implementation of QI at MoH and the most of the organizational, individual, and infrastructural factors was elicited. Such correlation reached the statistically significant levels with the following factors: organizational structure, top management commitment, leadership, monitoring & supervision, staff training, staff engagement, HIS, financial support, and material resources.

The researcher conducted in-depth interviews with eight health key informants from various sectors including administrators, academics, and experts. Semi structural questions were used to aid the researcher to reveal information and responses that were not covered by the questionnaire. The interviewees identified were concurred regarding the limited implantation of QI. Similarly, they reported the barrier factors to the implementation of QI as elicited by the quantitative data.

5.2 Recommendations

The last objective of this study was to highlight the recommendations to the MoHs' decision makers, managers, leaders, and healthcare providers in which this study was conducted in order to assist this organization to overcome the barriers that faced it during their QI implementation. Such recommendations aim to improve the effectiveness, efficiency, and the sustainability of QI:

1. Addressing the QI in the strategic planning as an approach to improve the provided healthcare services.

2. Enhancing the role of the MoH top management commitment to the QI through developing clear vision, strategies and policies, ensuring the resources, and actively involved.

3. Building and diffusing the culture of quality based on the value of achievement, teamwork, and innovation.

4. Strengthening the role of transformational leadership who can lead the change processes and inspire, motivate, and guide the personnel to achieve the MoH goals.

5. Establishing effective HRM strategies to ensure the presence of more qualified & professional members, and to achieve a formal reward program.

6. Strengthening the HIS and building consensus on a set of performance indicators including operational definitions, methods of data collections, data sources, and evaluation standards.

7. Establishing effective training strategies to build the capacities of MoH personnel about the QI concepts, principles, and tools.

8. Encouraging and motivating MoH personnel to participate in the process of planning and decision making.

9. Introducing the QI science in the curriculums of the health sciences colleges to promote the awareness about its concepts, philosophies, principles, and tools.

5.2.1 Recommendations for further research

The researcher would recommend conducting further research studies covering the following areas:

- Factors hindering the implementation of QI in the NGOs or UNRWA.
- The role of the middle and lower management in the success of QI at the MoH.
- Factors influencing the compliance with performance standards at the MoH.
- Assessment the dominant organizational culture at MoH and its impact on practicing the QI.
- Evaluation of the use of HIS in the strategic plan for QI at MoH.
- Assessment the effectiveness of HRM strategies in the success of QI at the MoH.
- Effect of incentives on the implementation of QI at the MoH.
- The role of the physician and nurse in the implementation of QI at the MoH.
- The role of QI in strengthening the Palestinian health system.

Chapter 6

References and Annexes

6.1 References

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6.2 Annexes

Annex (1): Health care facilities in Gaza Strip (WHO, 2010d)

Annex (2.1): Distribution of participants in the study sample by job positions:

No.	Specialization	Practical/ Technical No. (%)	Department Head No. (%)	Supervisor No. (%)	Department Director No. (%)	Total No. (%)
1	Medicine	87(77%)	24(21.2%)	0(0%)	2(1.8%)	113(100%)
2	Nursing	109(70.3%)	32(20.6%)	13(8.4%)	1(6%)	155(100%)
3	Pharmacy	22(73.3%)	8(26.7%)	0(0%)	0(0%)	30(100%)
4	lab	14(56%)	10(40%)	0(0%)	1(4%)	25(100%)
5	X-ray Tech.	13(65%)	2(10%)	2(10%)	3(15%)	20(100%)
6	Physiotherapy	7(87.5%)	1(12.5%)	0(0%)	0(0%)	8(100%)
7	Administration	28(60.9%)	12(26.1%)	5(10.9%)	1(2.2%)	46(100%)
	Total	**280(70.5%)**	**89(22.4%)**	**20(5%)**	**8(2%)**	**397(100%)**

Annex (2.2): Distribution of participants in the study sample by work settings:

No.	Specialization	Hospitals No. (%)	PHCs No. (%)	Total No. (%)
1	Medicine	73 (64.6%)	40 (35.4%)	**113(100%)**
2	Nursing	111 (71.6%)	44 (28.4%)	**155 (100%)**
3	Pharmacy	15 (50%)	15 (50%)	**30 (100%)**
4	Paramedical	32 (60.4%)	21 (39.6%)	**53 (100%)**
5	Administration	31 (67.4%)	15 (32.6%)	**46 (100%)**
	Total	**262 (66%)**	**135 (34%)**	**397 (100%)**

Annex (3): Ethical approval from Helsinki committee

Palestinian National Authority
Ministry of Health
Helsinki Committee

السلطة الوطنية الفلسطينية
وزارة الصحة
لجنة هلسنكي

التاريخ : 07/03/2011

Name: **Mahmoud Radwan**

الاسم: محمود رضوان

I would like to inform you that the committee has discussed your application about:

نفيدكم علماً بأن اللجنة قد ناقشت مقترح دراستكم حول:-

" Factors hindering the implementation of quality improvement at the MOH-Gaza."

In its meeting on March   2011

و ذلك في جلستها المنعقدة لشهر 3   2011

and decided the Following:-

و قد قررت ما يلي:-

To approve the above mention research study.

الموافقة على البحث المذكور عاليه.

Signature
توقيع

Member

Member

Chairperson

عضو

عضو

Conditions:-
- ❖ Valid for 2 years from the date of approval to start.
- ❖ It is necessary to notify the committee in any change in the admitted study protocol.
- ❖ The committee appreciate receiving one copy of your final research when it is completed.

24

Annex (4): Administrative approval from MoH

<table>
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Al-Quds University

Jerusalem

School of Public Health

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جامــعـة القـدس

القدس

كلية الصحة العامة

التاريخ: 2011/6/28

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حضرة الدكتور ناصر أبو شعبان   المحترم

مدير عام تنمية القوى البشرية –وزارة الصحة

تحية طيبة وبعد،،،

الموضوع: مساعدة الطالب محمود رضوان

يقوم الطالب المذكور أعلاه بإجراء بحث بعنوان:

"Factors Hindering The Implementation of Quality Improvement at The MOH-Gaza"

كمتطلب للحصول على درجة الماجستير في الصحة العامة–مسار الإدارة الصحية. و عليه نرجو التكرم للإيعاز لمن ترونه مناسب لتسهيل مهمة الطالب في جمع البيانات اللازمة من المستشفيات و مراكز الرعاية الأولية التابعة لوزارتكم الموقرة. علماً بأن المعلومات ستكون متوفرة لدى الباحث و الجامعة فقط.

و اقبلوا فائق التحية و الاحترام،،،
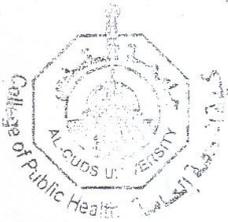
د. بسام أبو حمد

منسق عام برامج الصحة العامة

نسخة:

– الملف

Jerusalem Branch/Telefax 02-24799234
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فرع غزة/تلفاكس 08-2884422-2884411
ص. ب/51000–القدس

126

Annex (5): Questionnaire's explanatory letter (Arabic)

<div dir="rtl">

استبانة الدراسة

أخي المشارك المحترم, أختي المشاركة المحترمة,,,

السلام عليكم ورحمة الله وبركاته . .

تهدف هذه الدراسة الى تحديد العوامل التي تعيق تطبيق تحسين الجودة في مرافق وزارة الصحة– غزة, وتأتي هذه الدراسة استكمالاً لمتطلبات الحصول على درجة الماجستير في الادارة الصحية بجامعة القدس ابو ديس– كلية الصحة العامة.

أُقدِّر لكم كثيراً مشاركتكم بتعبئة هذه الاستبانة علماً بان الوقت المتوقع للانتهاء من تعبئتها هو 20 دقيقة. المشاركة في هذه الدراسة هي طوعية ولديكم الحق في الانسحاب في أي وقت. كما أن اجابتكم ستُعامل بسرية تامة ولا تستخدم الا لأغراض البحث العلمي فقط. كتابة اسمك اختيارياً..

لذا أرجو تعبئة الاستبانة كاملةً بدقة وواقعية وبما يعبر عن رأيك, فلا توجد اجابة صحيحة او اجابة خاطئة...

شكراً لحسن تعاونكم

الباحث
محمود محمد رضوان
0599688177
mradwan78@hotmail.com

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Annex (6): The study Questionnaire

Part 1: SN. ………

A- Socio Demographic Characteristics				
1-Sex	□ Male		□Female	
2-Age	………………………			
3-Qualification	□Diploma	□Bachelor	□Master	□Doctorate □ other/specify ……………..

4-Specialization	□Medicine	□Nursing	□Laboratory	□Pharmacy
	□Radiology	□Physiotherapy	□ Management	□others/specify ……………...

5-Position	□ Practitioner/ staff	□ Department Head	□Supervisor
	□Unit Director	□Director General	□ other/specify ……………………..

6-Working Place	□ Hospital	□ Primary Healthcare	□ other/specify ……………………..
7-Salary (NIS)	……………………………….		
8-Total Years of Work Experience	……………………………….		

B- Status of to the implementation of Quality Improvement

9. At your work setting now, is there a quality improvement department?
   □ Yes   □ No   □Don't know
10. At your work setting now, is there a quality improvement coordinator or facilitator?
   □ Yes   □ No   □Don't know
11. At your work setting now, is there a quality improvement team or committees (e.g.: infection control, morbidity & mortality, medical errors, and safety committee)?
   □ Yes   □ No   □Don't know
11.1 If yes, does quality improvement team or committee meet regularly?
   □ Yes   □ No   □Don't know
12. Did your work setting implement quality improvement activities in the last 3 years?   □Yes   □No   □Don't know
13. Did you learn about quality improvement during your university study?

   □ Yes   □ No

14. Have you ever received postgraduate training or courses related to

   quality improvement concepts or activities?   □ Yes   □ No

15. Have you ever been involved in quality improvement implementation activities?

   □ Yes   □ No

16. Does your work setting has a clear written plan & strategies for quality

   improvement?   □ Yes   □ No   □Don't know

128

17. Does your institution or work setting has a written work related standards or

protocols?   □ Yes   □ No   □Don't know

18. Is there a clear & credit incentive system in your institution?

□ Yes   □ No   □Don't know

18.1 If yes, please choose all types of incentives that apply in your institution?

□Wages   □Bonuses □Allowances   □Upgrading
□ Rewards   □Recognition □Others/ Specify………..

Part 2:

A. Please, place the mark (√) in the box that indicates how strongly you agree / disagree with the following organizational factors:

A. Organizational Related Factors

	Organizational Culture	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
19	At my institution, the employee's beliefs & values support the implementation of quality improvement activities.					
20	At my work setting, team working is strong and successful.					
21	At my institution, the values of achievements & innovations are appreciated.					
22	At my institution, the decision making is consensus-based.					
23	At my work setting, the values & beliefs recognize the delegation & accountability of responsibilities.					
	Organizational Structure	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
24	At my work setting, delegation of authorities & responsibilities is done as needed.					
25	At my work setting, the job description is clear.					
26	At my institution , the roles and responsibilities of quality improvement are incorporated in employees' job description.					
27	The communication channels at my work setting are vague .					
28	At my institution, the system relies on written rules, policies & procedures.					
	Managerial Commitment	Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
29	There is a clear commitment & support of top management & leadership toward the implementation of quality improvement activities.					

		Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
30	The management addresses quality improvement as a priority in planning and policies making.					
31	I think the management is focusing on satisfying emergency health needs rather than quality improvement implementation activities.					
32	The management doesn't allocate adequate organizational resources (e.g., finances, people, time, and equipment) for quality improvement implementation.					
	Leadership Skills	**Strongly Agree 5**	**Agree 4**	**Neutral 3**	**Disagree 2**	**Strongly Disagree 1**
33	The management at my work setting is inspirational that can influence our abilities to achieve our tasks.					
34	I think that leaders at my work setting have the capacities for empowerment, guidance, and direction towards performance improvement.					
35	I think that leaders at my work setting haven't the skills for effective decisions making & problem solving techniques.					
36	Capacity of leaders to manage change during process improvement is ineffective					
	Monitoring & Supervision	**Strongly Agree 5**	**Agree 4**	**Neutral 3**	**Disagree 2**	**Strongly Disagree 1**
37	At my work setting, our performance are monitored & measured on ongoing base.					
38	My institution designs quality indicators to measure the performance for improvement.					
39	I think my institution depending only on the tool of periodic inspection for monitoring.					
40	The supervisors at my institution have the skills of empowerment, directing, and rewarding.					
41	The supervisors at my work setting neither encourage nor guide employees to achieve the desired goals.					
42	The supervisors at my work setting identify the priorities for training & education according to assessment of employees' needs.					
	Standards & Protocols	**Strongly Agree 5**	**Agree 4**	**Neutral 3**	**Disagree 2**	**Strongly Disagree 1**
43	At my institution, the employees implement the tasks in a hub- hazard & non- uniform way.					
44	I think that working with the routine provision of services can improve quality rather than adherence to agreed quality standards.					
45	Adherence to quality standards in MoH facilities is difficult and unfeasible.					
46	At my work setting, the adherence to quality standards & protocol is time consuming.					

		Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
47	At my work setting, training on standards & protocol implementation is limited.					
48	I think the employees at my work setting are committed to standards implementation.					
	Human Resource management & Incentives	**Strongly Agree 5**	**Agree 4**	**Neutral 3**	**Disagree 2**	**Strongly Disagree 1**
49	I think that human resource management in MoH is weak & ineffective.					
50	I think that MoH has a clear strategies and policies for staffing and recruitment the qualified staff.					
51	I think that MoH has a clear strategies & policies for employees training &development					
52	Absence of financial incentives hinders the success of quality improvement implementation.					
53	MoH unable to provide financial incentive due to the limited budget					
54	Non financial incentives are neglected at my work setting.					
55	I think that MoH is adopting the system of punishment rather than rewards.					

A. Please, place the mark (√) in the box that indicates how strongly you agree / disagree with the following organizational factors:

B. Individual Related Factors

	Staff Engagement	**Strongly Agree 5**	**Agree 4**	**Neutral 3**	**Disagree 2**	**Strongly Disagree 1**
56	At my institution, all employees have the choice to be involved in quality improvement activities & decisions.					
57	At my institution, top and middle managers are the only responsible for quality improvement planning, policy making, and decisions making.					
58	Engagement of technical staff in quality improvement planning and decisions is limited.					
59	At my work setting, no one interested in the implementation of quality improvement.					
	Staff Training and knowledge	**Strongly Agree 5**	**Agree 4**	**Neutral 3**	**Disagree 2**	**Strongly Disagree 1**
60	At my work setting, most employees are well trained on quality improvement concepts, principles, tools, and activities.					
61	At my institution, on-job training is the reliable method to raise employees' knowledge & skills.					
62	I'm oriented to quality improvement principles and tools, and don't need training or education.					
63	At my work institution, there are acute					

		Strongly Agree 5	Agree 4	Neutral 3	Disagree 2	Strongly Disagree 1
	shortage of expert trainers in quality improvement science.					
64	At my work institution, shortage of the trained & qualified staff on quality improvement affects negatively the implementation of quality improvement activities.					
	Staff Attitude	**Strongly Agree** **5**	**Agree** **4**	**Neutral** **3**	**Disagree** **2**	**Strongly Disagree** **1**
65	I think that quality improvement implementation is the answer for performance improvement and quality related problems.					
66	I think that quality improvement implementation is very costly.					
67	I think that quality improvement experience can be acquired just from own experience.					
68	I think that Palestinian health care system can't be improved.					
69	I think that implementation of quality improvement can't be applied at MoH facilities.					
	Staff Time & Workload	**Strongly Agree** **5**	**Agree** **4**	**Neutral** **3**	**Disagree** **2**	**Strongly Disagree** **1**
70	I think that quality improvement implementation is time Consuming.					
73	I think that quality improvement implementation adds extra burden to staffs' assigned tasks.					
71	I think that employees can manage the time to cope with the over workload to implement quality improvement activities.					
72	I think that the implementation of the routine assigned tasks saves time more than implementation of quality improvement activities.					
73	I think that the tasks assignment permits more time for the implementation of quality improvement activities.					

C. Please, place the mark (√) in the box that indicates how strongly you agree / disagree with the following organizational factors:

B. Infrastructural Related Factors:

	Financial Support	**Strongly Agree** **5**	**Agree** **4**	**Neutral** **3**	**Disagree** **2**	**Strongly Disagree** **1**
74	Lack of financial support from donor institutions affects negatively the implementation of quality improvement.					
75	MoH can implement quality improvement without spending much or extra money.					
76	I think that MoH Allocate adequate budget for the implementation of quality improvement activities					

77	I think that cost containment and efficiency of services provision hinder the success of quality improvement implementation activities.					
	Material Resources	**Strongly Agree** **5**	**Agree** **4**	**Neutral** **3**	**Disagree** **2**	**Strongly Disagree** **1**
78	At my work setting, shortage of equipment and supplies affect negatively quality improvement implementation.					
79	I think there are enough equipment, instruments, and supplies to do my work well.					
80	I think that MoH is Keeping up with medical devices technology to improve the implementation of quality improvement.					
81	We can do our tasks well in the absence of supplies & equipment.					
	Health Information system	**Strongly Agree** **5**	**Agree** **4**	**Neutral** **3**	**Disagree** **2**	**Strongly Disagree** **1**
82	In my institution, the access to data & information is limited.					
83	In my institution, the functions of data collection, processing, analyzing, and dissemination are strong & effective.					
84	In my institution, utilization of data & information related to quality improvement are poor & not enough.					
85	In my institution, clearly defined indicators are used to measure the performance & improvement.					
86	In my institution, the information is not used in the planning & decision making for quality improvement.					
87	At my work setting , the system is computerized					
88	Generally, at my work setting, the underreporting & incomplete documentation are obvious & evident.					

89- According to your opinion please mention other barriers which could hinder the implementation of quality improvement in your setting?

………………………………………………………………………………..……………

………………………………………...

....

Annex (7): The proposed questions to the key informant interviews:

1. In your opinion, how could you evaluate the implementation of quality improvement at the MoH facilities during the last three years?
2. What are the main barriers for the implementation of quality improvement at MoH facilities? How they affected the implementation?
3. Discuss the role of the management in the quality implementation and performance? To which degree it was supportive? What could be done more by the management?
4. How you evaluate the availability and adherence to quality standards at the MoH?
5. Discuss how the quality implementation has been affected by:
    a. Financial resources
    b. Change management
    c. Political division
    d. Training
    e. Leadership
    f. Culture
    g. HIS
    h. Involvement
6. How can you explain that the most perceived barriers to the implementation of QI were ranked as the following: management commitment & support, organizational culture, leadership, change management, training, employees' involvement, health information system?
7. How could you explain the differences in the perceived barriers of QI with the following:
    ▪ males and females
    ▪ (Physicians-nurses- paramedical) and (pharmacists- administrators)
    ▪ technical and managerial individuals
8. What you suggest to strengthen the implementation of QI at MoH facilities?
9. Are there any other issues regarding the barriers of QI that you would like to discuss?

Annex (8): Characteristics of the Key Informants

No.	Names	Location	Position	Experience
1	Dr. Reyad El Za'anoon	Ex-Minister of Health	Ex-Minister of Health-Expert	More than 10 Yrs.
2	Dr. Mohammed El Kashif	MoH	Top Senior Manager & Academic	More than 10 Yrs.
3	Dr. Fo'ad El Eisawi	MoH	Top Senior Manager	More than 10 Yrs.
4	Dr. Methkal Hassouna	MoH	Senior Manager	More than 10 Yrs.
5	Mr. Mousa El Emawi.	MoH	Director of QI Unit	Less than 5 Yrs.
6	Dr. Abd El Naser Sobeh	WHO	Health Expert	More than 10 Yrs.
7	Miss Lubna Al Sharif	WHO	Health Expert & Academic	More than 10 Yrs.
8	Miss E'atemad Abu Warda	WHO	Health Expert	More than 10 Yrs.

Annex (9) Names of the Experts

No.	Names	Location
1	Dr. Yehia Abed	Al-Quds University
2	Dr. Bassam Abu Hamad	Al-Quds University
3	Dr. Sana'a Abu Dagga	Islamic University – Gaza
4	Dr. Aelyan Al Holi	Islamic University – Gaza
5	Miss Lubna Al Sharif	WHO
6	Abd El Naser Sobeh	WHO
7	Dr. Radwan Baroud	MoH- Gaza
8	Mr. Mahmoud Al Da'ama	MoH- Gaza
9	Dr. Sa'aed Al Oddadi	King Khalid University-Saudi Arabia

Annex (10): Distribution of responses by top mangt. commitment related variables

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	Clear commitment & support of top management to QI	10	2.5	53	13.4	119	30.0	144	36.3	71	17.9
2	Management addresses QI as a priority in planning	8.0	2.0	57	14.4	90	22.7	158	39.8	84	21.2
3	Managt. meets emergency needs rather than QI	110	27.7	189	47.6	78	19.6	15	3.8	5.0	1.3
4	Management doesn't allocate adequate resources for QI	140	35.3	199	50.1	42	10.6	11	2.8	5.0	1.3

Annex (11): Distribution of responses by organizational culture related variables

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	Beliefs & values support the implementation of QI	11	2.8	44	11.1	139	35.0	125	31.5	78	19.6
2	Team working is strong and successful.	12	3.0	83	20.9	87	21.9	122	30.7	93	23.4
3	Values of achievements& innovations are appreciated.	5.0	1.3	29	7.3	50	12.6	188	47.4	125	31.5
4	Decision making is consensus-based.	7.0	1.8	34	8.6	50	12.6	181	45.6	125	31.5
5	Values recognize the delegation & accountability	9.0	2.3	61	15.4	124	31.2	132	33.2	71	17.9

Annex (12): Distribution of responses by leadership related variables

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	Managt. is inspirational that influence our abilities	9.0	2.3	37	9.3	96	24.2	158	39.8	97	24.4
2	Leaders empower, guide, direct towards improvement.	15	3.8	64	16.1	69	17.4	165	41.6	84	21.2
3	leaders lack decisions making & problem solving skills	89	22.4	147	37.0	93	23.4	57	14.4	11	2.8
4	leaders can't manage change	88	22.2	160	40.3	97	24.4	47	11.8	5	1.3

Annex (13): Distribution of responses by HRM & incentives related variables

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	HRM in MoH is weak & ineffective.	111	28.0	147	37.0	105	26.4	31	7.8	3.0	0.8
2	MoH has clear strategies for staffing & recruitment	14	3.5	97	24.4	111	28.0	126	31.7	49	12.3
3	MoH has clear strategies & policies for training	12	3.0	82	20.7	118	29.7	136	34.3	49	12.3
4	Lack of financial incentives hinder success of QI	198	49.9	177	44.6	13	3.3	8.0	2.0	1.0	0.3
5	MoH unable to provide financial incentive	150	37.8	156	39.3	57	14.4	17	4.3	17	4.3
6	Non financial incentives are neglected.	169	42.6	171	43.1	29	7.3	25	6.3	3.0	0.8
7	MoH adopts the punishments rather than rewards.	202	50.9	146	36.8	32	8.1	13	3.3	4.0	1.0

Annex (14): Distribution of responses by HIS related variable

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	Access to data & information is limited.	57	14.4	198	49.9	96	24.2	42	10.6	4	1.0
2	Data collect., process., analyz., dissemination are strong.	4.0	1.0	32	8.1	101	25.4	186	46.9	74	18.6
3	Utilization of data & informat. related to QI are poor.	60	15.1	180	45.3	111	28.0	39	9.8	7.0	1.8
4	Clearly defined indicators are used to measure performance	5.0	1.3	20	5.0	105	26.4	190	47.9	77	19.4
5	Information is not used in the planning & decision making	89	22.4	187	47.1	81	20.4	38	9.6	2.0	0.5
6	The system is computerized	14	3.5	78	19.6	91	22.9	136	34.3	78	19.6
7	Underreporting & incomplete documentation are obvious	50	12.6	162	40.8	116	29.2	56	14.1	13	3.3

Annex (15): Distribution of responses by staff training related variables

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	Most staff are well trained on QI concepts, principles, tools	3.0	0.8	10	2.5	60	15.1	224	56.4	100	25.2
2	On--job training is the reliable used method	14	3.5	80	20.2	113	28.5	134	33.8	56	14.1
3	I'm oriented to QI principles &tools, and don't need training	4.0	1.0	27	6.8	55	13.9	234	58.9	77	19.4
4	Shortage of expert trainers in QI is obvious	136	34.3	222	55.9	33	8.3	5.0	1.3	1.0	0.3
5	Shortage of the trained staff on QI hinder the implementation	0.0	0.0	162	40.8	213	53.7	21	5.3	1.0	0.3

Annex (16): Distribution of responses by staff engagement related variables

*	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1	All staff has choice to be involved in QI activities	13	3.3	47	11.8	135	34.0	134	33.8	68	17.1
2	top and middle managers are the only plan for QI	57	14.4	157	39.5	136	34.3	34	8.6	13	3.3
3	Engagement of practitioners in QI planning is limited	64	16.1	169	42.6	107	27.0	49	12.3	8.0	2.0
4	No one interested in the implementation of QI	82	20.7	79	19.9	125	31.5	81	20.4	30	7.6

العوامل المعيقة لتطبيق تحسين الجودة في وزارة الصحة-غزة

اعداد: محمود محمد رضوان

اشراف: د. نهاية التلباني

ملخص:

لقد أصبح نهج تحسين الجودة من أحد العوامل الهامة لتحسين النتائج الصحية وزيادة الكفاءة في تقديم الخدمات الصحية في البلدان النامية، وتعتبر الحاجة لتطبيق تحسين الجودة في النظام الصحي الفلسطيني أكثر الحاحاً من أي مكان اخر حيث ندرة الموارد المتاحة والمشاكل الصحية المعقدة، ونظراً لقلة المعلومات المتوفرة عن أهم العوامل المؤثرة التي تعيق تطبق تحسين الجودة في وزارة الصحة فان هذه الدراسة تأتي بهدف فحص وتقييم أهم المعيقات المدركة لنجاح تطبيق تحسين الجودة بمرافق وزارة الصحة، وتهدف الدراسة تحديداً الى:

- استكشاف العوامل التنظيمية، الشخصية، والبنى التحتية التي تعيق تطبيق تحسين الجودة

- فحص الاختلافات بين موظفي وزارة الصحة المتعلقة بادراك معوقات تطبيق تحسن الجودة

- اختبار الارتباط بين تطبيق تحسن الجودة وبين العوامل المعيقة لتطبيق تحسن الجودة

- اعداد التوصيات لتمكين صانعي القرار من وضع الاستراتيجيات الفعالة نحو تطبيق تحسين الجودة في مرافق وزارة الصحة

المنهجية:

✓ تم اجراء دراسة مقطعية وصفية تحليلية بتصميم كمي ونوعي باستخدام الاستبيانات المعبأة ذاتياً والمقابلات المعمقة كطرق لجمع البيانات.

✓ تم اختيار عينة الدراسة بالطريقة العشوائية متعددة الطبقات لاختيار مقدمي خدمات الرعاية الصحية العاملين في وزارة الصحة في اثنين من المجمعات الطبية (الشفاء بغزة وناصر بخانيونس) وخمس مراكز رعاية أولية مستوى رابع.

✓ بلغ حجم العينة المحسوبة 450، استجاب منهم 397 للدراسة حيث بلغت نسبة الاستجابة 88.2%، وقد كان معدل الثبات لأداة الدراسة 0.78

✓ تم اجراء مقابلات معمقة وجهاً لوجه، مسجلة، وبأسئلة شبه مركبة مع ثمانية خبراء.

نتائج الدراسة:

➢ أظهرت النتائج أن غالبية المشاركين هم من الفئات العمرية الأقل من 40 عاماً ومن حملة البكالوريوس مما يسمح بفرص كبيرة للاستثمار في التدريب على مفاهيم الجودة.

➢ الغالبية العظمى من المشاركين لم يتعرضوا لدراسة علم تحسين الجودة في مرحلة الدراسة الجامعية ولم يتلقوا دورات تدريبية خاصة بمفاهيم وأسس وأدوات تحسين الجودة.

➢ أظهرت نتائج الدراسة أهم المعيقات المدركة من جهة المشاركين وكان أهمها التزام الادارة العليا تبعها ثقافة المؤسسة، القيادة، نظم المعلومات الصحية، ادارة القوى البشرية والمحفزات، تدريب الموظفين، واشراك الموظفين.

➢ على الرغم أن نتائج المقابلات المعمقة أظهرت أن أهم المعيقات لتطبيق تحسين الجودة هو عدم وجود خطة استراتيجية الا أن معظم الخبراء ذكروا نفس المعيقات التي برزت من خلال البيانات الكمية (الاستبيان).

➢ أظهرت النتائج أن ادراك المشاركين لتطبيق تحسين الجودة في مرافق وزارة الصحة كان محدودا بنسبة 25.1% وقد اتفق ذلك مع رأي واعتقاد الخبراء.

➢ ظهر تشابه في ادراك معوقات تطبيق تحسين الجودة بين العاملين في المستشفيات والرعاية الأولية حيث أن الفروق لم تصل الى مستوى الدلالة الاحصائية.

➢ أظهرت الدراسة فروقات ذات دلالة احصائية بين المشاركين في ادراك معوقات تطبيق تحسين الجودة بما يخص الجنس، التخصص، والموقع الوظيفي.

➢ يوجد ارتباط ضعيف بين تطبيق تحسين الجودة وبين دعم الادارة العليا، الهيكل التنظيمي، القيادة، ادارة القوى البشرية، المراقبة والاشراف، نظم المعلومات الصحية، الدعم المادي، الموارد المادية، تدريب واشراك الموظفين.

التوصيات:

تم وضع بعض التوصيات التي تهدف الى التغلب على معيقات تطبيق تحسين الجودة في وزارة الصحة وكان من أهمها:

▪ تبني نمط تحسين الجودة في الخطة الاستراتيجية لوزارة الصحة كنهج لتحسين الأداء وتحسين جودة وكفاءة الخدمات الصحية المقدمة.

▪ تعزيز دور والتزام القيادة والادارة العليا نحو تحسين الجودة من خلال تطوير رؤية واستراتيجيات واضحة للتحسين، توفير الموارد المادية، المشاركة الفعالة، و نشر ثقافة الجودة.

- وضع استراتيجيات فعالة لإدارة وتدريب القوى البشرية لضمان وجود الكادر المهني المؤهل ، وتبني نظام حوافز فعال.

- تعزيز دور نظم المعلومات الصحية مع التوافق على مجموعة من مؤشرات ممعيرة لقياس الأداء.

كما أوصت الدراسة بإجراء عدد من الدراسات التي تهدف الى استكشاف بعض الجوانب وتوضيح بعض التساؤلات التي اثارتها الدراسة ومنها:

- العوامل التي تعيق تطبيق تحسين الجودة في المؤسسات غير الحكومية أو الأونروا.

- دور نهج تحسين الجودة في تقوية النظام الصحي الفلسطيني.

- تقييم الثقافة المؤسسية السائدة في وزارة الصحة وأثرها على تطبيق تحسين الجودة.

- تقييم فعالية استراتيجيات ادارة القوى البشرية في نجاح تطبيق تحسين الجودة في وزارة الصحة.

- العوامل المؤثرة على الالتزام بمعايير الأداء والجودة في وزارة الصحة.