The Relationship between the Factors Hindering Quality Improvement and the Implementation of Quality Improvement at the Palestinian Ministry Of Health- Gaza

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ABSTRACT

The aim of this study is to investigate the relationship between the factors hindering quality improvement and the implementation of quality improvement at the Palestinian Ministry of Health (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 Primary Health care (PHC) centers (level 4). The calculated sample size was 418, out of them, 397 responded and completed the questionnaires, with a response rate of 95%. In-depth interviews were conducted with eight key informants as a second data collection instrument. Findings revealed that the most perceived factors hindering the implementation of QI were top management commitment followed by organizational culture, leadership, health information system, human resources management, staff training, and staff engagement. It was also found out that there is a limited implementation of QI with percentage of (25.1%). Pearson test showed statistically significant 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 researchers recommend 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.

Keywords: Quality Improvement, Organizational Factors, Infrastructural Factors, Individual factors, Ministry of Health.

INTRODUCTION

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). 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 fact, Quality Improvement (QI) of health care services is urgently needed in developing countries (Peabody *et al*.., 2006). Although, the successful implementation is critical to the effectiveness of a QI initiative, many health care managers and practitioners are unsure of how to proceed, especially within resource constraints. (Øvretveit, 2003).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). QI

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Received on 30/9/2012 and Accepted for Publication on 17/3/2013.

implementation 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).

Research Problem:

Since the establishment of the Palestinian National Authority (PNA) in 1994, several international aid, United Nation organizations, as well as local and international Non-Governmental Organizations (NGOs) have been involved, 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.*., 2009) . There appears to be an over investment leading to outcomes that are normally achievable with less investment (Hamad, 2011). 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) . 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). In a fragmented and inefficient health system like the Palestinian one where resources are scarce and health problems are complex, it seems that implementation of QI is even more crucial than elsewhere (Abed, 2007; MoH, 2008). The implementation of QI initiatives is a long and resource intensive process which is expected to face ranges of barriers (Solberg, 2007; Counte & Meurer, 2001; Enthoven *et al.*., 2000). 2. The research will try to 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.

Research Questions:

1. What are the main organizational factors that hinder QI at Gaza MoH facilities?
2. What are the main individual factors that hinder QI at Gaza MoH facilities?
3. What are the main infrastructural factors that hinder QI at Gaza MoH facilities?
4. What is the status of QI implementation within MoH facilities?
5. Are there associations between the implementation of QI and the organizational, individual, and infrastructural factors hindering QI?

Research Objectives:

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

Research Significance:

Few have examined the barriers and facilitators experienced by the healthcare 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. The significance of this study is manifested in the following points:

1. 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.

2. The results from this study could be used to improve the implementation of QI in other healthcare organization, as the barriers to implementation of QI will be better understood, subsequently allowing 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 .

3. This study may also lay a foundation for future QI research in Palestine.

Literature Review

Conceptual Framework

The framework of this study was designed by the researchers 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.

Quality definitions:

Quality has been defined differently by different authors, practitioners as well as academics, 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 defined quality as conformance to requirements or specifications while Deming defined quality as a predictable degree of uniformity and dependability, at low cost and suited to the market. (Dilber *et al.*., 2005). Juran and Gryna defined quality as fitness for use. They pay more attention on a trilogy of quality planning, quality control, and QI (Dilber *et al.*., 2005). Quality in health care has also been variously defined . TQM was originated after Quality Control (QC) and Quality Assurance (QA) as a measure to improve quality. The Continuous Quality Improvement (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 . Based on Al-Assaf and Sheikh (2004), QI as distinguished from QA or TQM, 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). In this study the researchers will adopt a definition for quality improvement that was developed by the World Health Organization 2000 that fits the study context (healthcare context). Accordingly, quality is defined as a process of meeting the needs and expectations of patients and health service staff. This definition seems to fit this study as it takes into consideration both the internal and the external customers of healthcare institutions.

Value of QI in healthcare:

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 (Yang & Christian, 2003). 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). Salman (2005) 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. 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.

Previous studies:

Organizational Factors

Organizational culture:

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). A supportive organizational culture is often cited as a key component of successful QI initiatives in a variety of industries, including healthcare. Several authors (Chenoweth & Kilstoff, 2002; Weick & Sutcliffe, 2001) assert that QI generally has had modest success because of the failure to address organizational culture. A majority examined associations between group, developmental, rational, and/or hierarchical culture and QI success. 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 ; Rad, 2006; Shortell et al.., 2004 ; & Wakefield et al.., 2001). 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). Values of the collaborative teamwork in the provision of healthcare services are lacking (Hamad, 2011).

Organizational structure:

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). 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). 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).

Top Management Commitment:

TQM initiative programs always emphasize 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). It has been found that commitment of top management is highlighted as a critical factor for successful QI efforts (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. On the other hand, the top management must provide adequate resources to the implementation of quality efforts (Dilber et al.., 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).

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). The leadership determines an appropriate organization culture and play a role in organization cultural change (Huq, 2005; Luria, 2008). Bergman and Klefsjö (2003) found that effective leadership empowers the employees and they give these employees a sense of pride and belonging so that employees can take ownership of the organization. Dilber et al.., (2005) emphasize that leaders are also required to provide adequate resources to the implementation of quality efforts. 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..., 2006). Considering the Palestinian context, many management factors are affecting the efficiency and the effectiveness of health system in Palestine. 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).

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). 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). 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). Supervision is a key component of a quality monitoring system. Evidence demonstrates that continuous implementation of supportive supervision generates sustained performance improvement (Marquez & Kean, 2002). 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; Hamad, 2011). Such supervision is done for administrative rather than educative purposes (Hamad, 2011).

Standards / Protocols:

Many clinician look at clinical guidelines as lead to cook-book practice, reducing clinical freedom and flexibility, and devaluing clinical judgment (Jorm & Kam, 2004; Welsby, 2002) . Bateganya et al..., (2009) described the barriers to implement national hospital standards in Uganda as technical assistance, funding, and training as the

main obstacles. The administrative and technical instructions, policies, guidelines, and standards are either lacking or incomplete (Hamad, 2001; Hamad, 2011). Another surprising study aimed to assess the compliance with infection prevention and control (IPC) practices in neonatal units, indicated 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).

Human Resources Management (HRM) and Incentives:

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). 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). Another crucial function of the HRM is the training and development, which have been recognized as essential to the implementation of TQM. 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. However, Shalaby (2009) reported that only 35% of the MoH-Gaza health facilities had human resource development strategies. 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).

Individual factors

Staff Engagement:

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. 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 et al..., 1995a).

Staff Training:

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. Several recent consistent empirical studies revealed that training and education are critical to successful TQM implementation (Dayton, 2001; Pun, 2001; 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.

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).

Staff time and workload:

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).

Infrastructural factors:

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, 2000). Successful QI implementation depends on the availability and timeliness of information from which to identify problems and benchmark changes in healthcare processes. 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). The Palestinian Health Information 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. Meanwhile, PNGO (2009) described the information sharing and communications among the Palestinian healthcare system are usually poor.

Financial Support and Material resources:

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). 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.

Health Status, Healthcare System, and Quality Improvement in Palestine:

Recent demographic reports indicate that the population density in Gaza Strip (GS) is around 4279 inhabitants per one square kilometer in 2010, while the total number of the Palestinian population residing in the GS by the end of the year 2010 is 1,561,906 (PCBS, 2011b). 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. 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 21.5 in the year 2009 (MoH, 2011). The second major indicator of the health status in Palestine is Maternal Mortality Ratio (MMR) which is estimated in 2009 by 36.6/100,000 live births (MoH, 2011).

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. 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 (Chemonics International, 2008). MoH is the major employer of health professionals. During 2009, MoH- Gaza has 9,499 employees (MoH, 2011). The current employees are distributed as; 20% physicians, 25% nurses, 23.6% administrative staff, and 31.4% other categories.

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 (Abed, 2007; 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; Schoenbaum et al.., 2005). 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).

Research Methodology

This part describes the method used in this study, research instrument, procedures of data gathering, validity and reliability, and the profile of the study sample.

Research Design and Sampling Process:

The study is descriptive, analytical cross sectional one with a triangulated design (quantitative and qualitative). It 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). 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 study population was 7578 (64% working in hospitals and (36%) in PHC). The sampling process in this study is based on two phases:

The first phase consisted of using a purposive selection approach through which two hospitals (Shifa and Naser) out of the 13, and five PHC centers (level 4) out of the 54 in GS. The selection criteria for both Shifa hospital in north GS and Nasser in south GS is based on the fact that they are medical complexes comprising three hospitals (medical, surgical, and obstetric). These 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. Additionally, these two selected hospitals have been exposed to QI activities through the QI project implemented in MoH during 1995-2005. The selected five PHC 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.

The second phase of the sampling process was based on using the randomized multi-stage strata followed by a proportional sampling. The calculated sample size using

Epi Info program is (418). The sample size for the staff working in the two selected hospitals is 268 (64%x418) and the sample size for the staff working in the five selected PHC centers is 150 (36%x418). The total number of staff who had positively responded were 397 resulting in a response rate of 95%. The total number of the key informants who were selected purposively was eight.

Study instruments:

The researchers used two data collection methods in this study; the first one was structured self-administered questionnaires as a quantitative tool, and key informant interviews as a qualitative tool. The structured self-administered questionnaire was developed by the researchers after conducting an extensive literature review and consultation of experts. It focused on what is actually experienced or practiced on the individual basis and on the perceptions and attitudes of the personnel. The study questionnaire was divided into the following parts:

- The first part included questions demographic related data including gender, age, educational level, and specialization, job position, work setting, monthly salary, and previous work experience.
- The 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.

The Key informant interviews were used as a second data collection method. Semi structured, opened ended statements were used in this qualitative methodology. Eight experts were selected to conduct in-depth interviews to provide deep understanding and generate new ideas, and give more evidence towards their perception.

Validity and Reliability:

The validity was assured as the questionnaire were reviewed by nine different experts with different background, 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. 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. The reliability of the qualitative key informant interviews data was assured through the description of the interviewees characteristics (location, position, and experience).

Profile of the Respondents:

Table (1) and Table (2) describe the profile of the respondents according to the socio-demographic, and work related characteristics. It is clear from Table (1) and Table (2) That:

Table (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

No.	Variable	Frequency	%
	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)		

Table (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**

- The high percentage females compared to other sectors is due 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.
- The age structure could be seen as a potential source for the MoH and an opportunity for investment in the capacities building.
- The educational levels of the study sample indicates the effect of the upgrading programs which enabled many employees such as nurses, lab. & x- ray technicians, and administrators to hold a bachelor degree. However, the high percentage of the bachelor

holders could be seen as a strength point towards the investment in training about QI.

- The differences in the salaries could be attributed to the civilian employee's law regarding salaries categorization according to job titles.
- 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) after the political division in 2007 and recruiting of a new ones instead.
- The majority 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.
- The majority of the participants 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.
- The majority of the participants did not receive any postgraduate training or courses related to QI concepts or activities. This is because the 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.

Results and Analysis:

What are the main organizational factors hindering QI at Gaza MoH facilities?

- **Top Management Commitment:**

The analysis indicates that (85.4%) of the participants stated that management does not allocate adequate organizational resources (e.g., finances, people, time, and equipment) for QI activities, (75.3%) stated that management is focusing on satisfying emergency health needs rather than supporting the implementation of QI activities, (61%) stated that management does not address the QI as a priority in planning and policies making (Table 3). The researchers believe that 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. The study findings are consistent with the findings of other studies which showed 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, El Dokki 2006, and EL Kahlout , 2004) . 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 .

Table (3): Distribution of responses by top management 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

Most of the interviewees 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. 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 activities. The management did not adopt the QI as an approach to improve the quality of health services"(Health Expert) .

- **Organizational Culture:**

The analysis shows that (78.9%) of the participants 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 (Table 4).

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. The researchers believe that 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. The previous QI projects implemented at the MoH targeted some areas for improvement rather than working to diffuse the quality concepts among the personnel. These findings are consistent with the findings of Hamad (2011) who 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).

Table (4): 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

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) .

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 and problem solving techniques and lack the capacities to manage change during process improvement with the percentage of (59.4% and 62.2%) respectively (Table 5). The researchers believe that 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 MoH leaders are practicing the administrative role rather than empowering, coaching, guiding, and influencing the personnel to achieve the MoH goals. The study findings are consistent with the findings of another study which showed that many management factors are affecting the efficiency and the effectiveness of health system in Palestine, and at the top of these factors, is leadership in healthcare organizations (Hamad, 2001).

Table (5): 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

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. " 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).

Human Resources Management and Incentive:

The analysis shows that (65%) of the participants stated that the human resource management at MoH was weak and ineffective. On the other hand, only 27.9% of participants stated that the MoH has a clear strategies for staffing and recruitment while (23.7%) of the participants stated that MoH have clear strategies and policies for training (Table 6). 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 consistent 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 consistent with the findings 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).

94.5% of the participants believed that absence of the financial incentives hinders the success of QI implementation at the MoH. (77.1%) of respondents believed that MoH is unable to provide financial incentive due to the limited budget, (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. The result shows that the financial and non financial incentives, which are important motivators, are widely underutilized by the managers in the MoH facilities. The researchers believe that the negative perception of the respondents toward the current incentive system could be related 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.

The study findings are 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.

Table (6): 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

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) .

Table (7): Distribution of responses by standards / protocols related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	At my institution, the employees implement the tasks in a hub- hazard & non- uniform way.	58	14.6	143	36.0	87	21.9	92	23.2	17	4.3
2.	I think that working with the routine provision of services can improve quality rather than adherence to agreed quality standards.	38	9.6	80	20.2	101	25.4	142	35.8	36	9.1
3.	Adherence to quality standards in MoH facilities is difficult and unfeasible.	32	8.1	78	19.6	111	28.0	145	36.5	31	7.8
4.	At my work setting, the adherence to quality standards & protocol is time consuming.	14	3.5	37	9.3	73	18.4	193	48.6	80	20.2
5.	At my work setting, training on standards & protocol implementation is limited.	90	22.7	238	59.9	52	13.1	15	3.8	2	0.5
6.	I think the employees at my work setting are committed to standards implementation.	8	2.0	32	8.1	94	23.7	153	38.5	110	27.7

- **Standards/Protocols**

(82.6%) of respondents stated that training on implementation of standards/protocols is limited and (10.1%) stated that employees at their work setting are committed to standards implementation, (50.6%) stated that tasks are implemented in a hub hazard and non-uniform way. On the other hand, (12.8%) stated that the compliance with work standards/protocols is time consuming and (27.7%) stated that compliance with work standards in MoH facilities is difficult and unfeasible feasible (Table 7). The researchers believe that this result could be related 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 most of 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) .

Table (8): Distribution of responses by monitoring and supervision related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	At my work setting, our performance are monitored & measured on ongoing base.	19	4.8	146	36.8	92	23.2	100	25.2	40	10.1
2.	My institution uses quality indicators to measure the performance for improvement.	18	4.5	52	13.1	111	28.0	157	39.5	59	14.9
3.	I think my institution depending only on the tool of periodic inspection for monitoring.	65	16.4	152	38.3	113	28.5	59	14.9	8	2.0
4.	The supervisors at my institution have the skills of empowerment, directing, and rewarding.	17	4.3	126	31.7	124	31.2	83	20.9	47	11.8
5.	The supervisors at my work setting neither encourage nor guide employees to achieve the desired goals.	37	9.3	90	22.7	162	40.8	95	23.9	13	3.3
6.	The supervisors at my work setting identify the priorities for training & education according to assessment of employees' needs.	15	3.8	115	29.0	147	37.0	78	19.6	42	10.6

- **Monitoring and Supervision:**

(41.6%) of the respondents 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 (17.6%) stated that the institution is using quality indicators to measure performance. . On the other hand, (36%) stated that the supervisors at their work setting have the skills of empowerment, directing, and rewarding, and (32.8%) stated that their identify the priorities for training in accordance to need assessment (Table 8). This result 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 the 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).

Organizational Structure:

Table (9): Distribution of responses by organizational structure related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	At my work setting, delegation of authorities & responsibilities is done as needed.	29	7.3	137	34.5	120	30.2	82	20.7	29	7.3
2.	At my work setting, the job description is clear.	16	4.0	68	17.1	73	18.4	163	41.1	77	19.4
3.	At my institution, the roles and responsibilities of quality improvement are incorporated in employees' job description.	6	1.5	29	7.3	91	22.9	185	46.6	86	21.7
4.	The communication channels at my work setting are vague.	36	9.1	118	29.7	102	25.7	131	33.0	10	2.5
5.	At my institution, the system relies on written rules, policies & procedures.	16	4.0	98	24.7	120	30.2	119	30.0	44	11.1

(8.8%%) of the respondents stated that the roles and responsibilities of QI are incorporated in the job description and (21.1%) stated that the job description is clear, while (28.7%) stated that the system relies on written rules, policies, and procedures. (41.8%) stated that delegation of authorities and responsibilities is done as needed and only (38.8%) claimed that communication channels at their work setting are vague (Table 9).

The researchers believe that this result could be attributed to the lack of clear policies and strategies supporting the structural change or institutionalization of QI. Other possible reason is the 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 study revealed that job description or performance appraisal is not carried out effectively and only 25% of employees have job description (Hamad, 2001).

What are the main infrastructural factors hindering QI at Gaza MoH facilities?

- **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 (Table 4.8). The finding reflects that the under utility of the information needed for healthcare management is hazardous, restricting the capacity to plan or assess performance(Table 10) The researchers believe that these findings 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 an 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 consistent 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.

Table (10): 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

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).

Table (11): Distribution of responses by financial support related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	Lack of financial support from donor institutions affects negatively the implementation of quality improvement.	19	4.8	49	12.3	31	7.8	196	49.4	102	25.7
2.	MoH can implement quality improvement without spending much or extra money.	25	6.3	92	23.2	97	24.4	140	35.3	43	10.8
3.	I think that MoH Allocate adequate budget for the implementation of quality improvement activities	3	0.8	8	2.0	71	17.9	216	54.4	99	24.9
4.	I think that cost containment and efficiency of services provision hinder the success of quality improvement implementation activities.	25	6.3	78	19.6	110	27.7	138	34.8	46	11.6

- **Financial Support:**

The findings indicate that (17.1%) of the respondents believed that lack of financial support from donor institutions affects negatively the implementation of QI, and (2.8%) believed that MoH allocates adequate budget for the implementation of QI activities. Although (29.5%) of respondents believed that MoH can implement the activities of QI without spending much or extra money, (25.9%) believed that cost containment and efficiency of services provision hinder 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 (Table 11) This variation in the responses could be attributed to the fact 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.

Some studies suggested 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 requires 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).

Table (12): Distribution of responses by material resources related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	At my work setting, shortage of equipment and supplies affect negatively quality improvement implementation.	101	25.4	236	59.4	28	7.1	27	6.8	5	1.3
2.	I think there are enough equipment, instruments, and supplies to do my work well.	10	2.5	59	14.9	67	16.9	189	47.6	72	18.1
3.	I think that MoH is Keeping up with medical devices technology to improve the implementation of quality improvement.	10	2.5	72	18.1	119	30.0	122	30.7	74	18.6
4.	We can do our tasks well in the absence of supplies & equipment.	9	2.3	68	17.1	94	23.7	163	41.1	63	15.9

- **Material Resources:**

(65.7%) of the participants stated that there is 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. (84.8%) stated that the shortage of equipment and supplies affects 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 (Table 12)

The researchers believe that a possible explanation of these results could be the proper utilization of the existing resources at the MoH. Such utilization let the participants not to perceive the material resources as a barrier.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.

What are the main individual factors hindering QI at Gaza MoH facilities?

- **Staff Training**

(90.2%) of the participants stated that the shortage of quality expert trainers is clear, while (81.6%) of the participants stated that most employees are not well trained about QI concepts, principles, tools, and

activities. (78.3%) of the participants 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(Table 13).

Such responses indicate that the awareness about QI at the MoH is still lacking. The researchers believe that the study results could be explained by the fact that the training at the MoH often targets the technical practices more 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. These results are consistent with 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).

Table (13): 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

Most of the interviewees agreed 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).

- **Staff Engagement:**

(58.7%) of the participants stated that engagement of technical staff in QI planning and decisions is limited while (15.1%) stated that all the employees have the

choice to be involved in QI activities and decisions. However, (53.9%) stated that top and middle managers are responsible for QI planning and decisions making and (40.6%) stated that no one is interested in the implementation of QI. (Table 14). Such findings reflect 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 consistent 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) indicated the limited personnel involvement in decision-making as a result of the predominant culture of centralization.

Table (14): 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

The majority of the interviewees believed that the involvement of the practitioners in planning, decision making, and improvement processes was very limited.. 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).

Table (15): Distribution of responses by staff attitude related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	I think that quality improvement implementation is the answer for performance improvement and quality related problems.	138	34.8	213	53.7	34	8.6	10	2.5	2	0.5
2.	I think that quality improvement implementation is very costly.	30	7.6	118	29.7	141	35.5	91	22.9	17	4.3
3.	I think that quality improvement experience can be acquired just from own experience.	13	3.3	60	15.1	119	30.0	175	44.1	30	7.6
4.	I think that Palestinian health care system can't be improved.	44	11.1	69	17.5	139	35.2	121	30.6	22	5.6
5.	I think that implementation of quality improvement can't be applied at MoH facilities.	29	7.3	56	14.1	91	22.9	173	43.6	48	12.1

- **Staff Attitude:**

(28.6%) of the respondents stated that Palestinian health care system can not be improved, while (88.5%) stated that the implementation of QI is the answer for quality related problems and (21.4%) stated that implementation of QI can not be applied at MoH facilities. Such responses refer to the relatively positive attitude among MoH staff toward the implementation of QI (Table 15)

Table (16): Distribution of responses by staff time and workload related variables

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
1.	I think that quality improvement implementation is time Consuming.	11	2.8	26	6.5	54	13.6	220	55.4	86	21.7
2.	I think that quality improvement implementation adds extra burden to staffs' assigned tasks.	12	3.0	99	24.9	68	17.1	172	43.3	46	11.6
3.	I think that employees can manage the time to cope with the over workload to implement quality improvement activities.	35	8.8	222	55.9	80	20.2	52	13.1	8	2.0
4.	I think that the implementation of the routine assigned tasks saves time more than implementation of quality improvement activities.	16	4.0	92	23.2	137	34.5	136	34.3	16	4.0

No	Items	S. Agree		Agree		Neutral		Disagree		S. Disagree	
		N	%	N	%	N	%	N	%	N	%
5.	I think that the tasks assignment permits more time for the implementation of quality improvement activities.	88	22.2	254	64.0	37	9.3	13	3.3	5	1.3

- **Staff Time and Workload:**

The findings indicate that (9.3%) of the participants believed that the implementation of QI is time consuming and (27.9%) believed that such implementation adds extra burden to the assigned tasks. On the other hand, (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 (Table 16) .The study finding is consistent with the finding of El Dokki (2006) who revealed that the staff time and workload were not barriers to the implementation of TQM programs, whereas it contradicts with the finding of another study which indicated 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)

Table (17): 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**				

What is the status of QI implementation within MoH facilities?

The researchers 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 indicates that (57.2%) of the 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 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 indicate that the implementation of QI at MoH facilities is limited. The researchers believe that his could be related to 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 consistent with 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).

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

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

Table (18): 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

- **Organizational Factors:**

- The analysis indicates statistically insignificant correlation between organizational culture and the implementation of QI as r =0.077 and P = 0.127. The researchers believe that this lack of significant correlation can be related to the fact that the implementation of QI is more associated with other factors than the culture. This explanation is supported by the literature which indicated little agreement on the role culture plays as a predictor of the quality of health care. It is still unclear which set of shared beliefs and values is the most effective in fostering QI . The finding is consistent 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).

- The analysis indicates a statistically significant correlation between organizational structure and the implementation of QI as r =0.255 and P = 0.000. Organizational structure is important in QI as it reflects lines of communication and authority for the QI initiatives. The organizational structure should be designed to facilitate the collection, analysis, and reporting of QI data and the implementation of QI initiatives. The structure should include all areas for which quality standards have been established. 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 insignificant association between the presences of TQM department, TQM full staff, budget al.location and the success in implementation of TQM.

- The analysis indicates a statistically significant

correlation between top management commitment and the implementation of QI as r =0.194 and P = 0.000. This result indicates that top management has a fundamental role to play in QI implementation. This could be achieved by top management leading many quality initiatives such as defining the organization's quality policy and communicating it throughout the organization, developing a measurable quality objectives, allocating the required resources, and provide working conditions that fosters the process of quality improvement. Such result is consistent with other results which found that the top management commitment and support is correlated with the implementation of QI activities (Bradley *et al*.., 2005; El Dokki, 2006; El Kahlout, 2004).

- The analysis indicates statistically significant correlation between leadership and the implementation of QI as r =0.156 and P = 0.002. Leadership has an important role to play in implementing QI. Leaders can promote QI initiatives by focusing on the needs of the customers, being committed to a mission and a vision that promote QI, developing a strategic QI plan to deliver continuous safe and quality care, and creating and supporting an infrastructure that organizes and supports QI. Such result was consistent with other results which found that leadership role is associated with the implementation of TQM (Alivi & Yasin, 2007; Bergman & Klefsjö, 2003; Greenberg & Baron, 2003; Hansson, 2003; Soltani, 2005; Yang & Christian, 2003). Contrary to that**,** Mills *et al*.., (2003) found that leadership was not related to successful quality program initiation.

- The analysis shows a statistically significant correlation between monitoring & supervision and the implementation of QI as r =0.162 and P = 0.001. Monitoring and supervision is an integral part of the QI process. It includes many aspects such as observation of performance, data collection, and reinforcement of job description, skills, norms and protocols, setting expectations, identifying problems and opportunities for improvement, and mobilizing actions. It should be noticed however that the role of monitoring and supervision should go beyond the limited scope of inspecting against a checklist. It should be a comprehensive process that includes mentoring, joint problem solving and communication. This result is consistent with the results of other studies which found that that monitoring and supervision are critical to the success of hospital QI practices (Marquez & Kean, 2002; Shaw, 2003).

- The analysis shows a statistically insignificant correlation between standards/protocols and the implementation of QI as r =0.039 and P = 0.438. This result is expected if it is linked to the previous result which indicates that (82.6%) of respondents stated that training on implementation of standards/protocols is limited. Despite this, the importance of having standards and protocols in the health care setting should not be underestimated. Health care institutions should develop standards and protocols that specify the desired level of quality which will assist health practitioners in providing appropriate health care. Standards and protocols should focus on clinical and non clinical practices and should be used to measure health outcomes which are difficult and costly to measure. 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; March, 2006).

- The analysis shows a statistically significant correlation between HRM & incentives and the implementation of QI as r =0.122 and P = 0.007. The result shows that human resource management policies should be consistent with QI objectives. This requires fundamental changes in the way health care institutions

train, empower, evaluate, and reward their health care staff. If QI is to succeed, health care institutions should revise their human resource management practices such as selection, promotion, and developing future leaders.The result is consistent with other studies that revealed the association between the HRM and the implementation of QI (Alirza *et al*.., 2011; Oakland & Oakland, 2001)

Table (19): 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

- **Individual Factors:**

The analysis shows a statistically significant correlation between staff engagement and the implementation of QI as r =0.155 and P = 0.002. By communicating and sharing the information with staff, the purpose and the strategy of QI initiatives will be understood. Engagement of the staff will make them feel that they are an integral part of the healthcare team and will assist them in understanding the causes of the problems facing their organization. This will in turn make them informed about the reasons behind QI initiatives. 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. The result is also consistent with the literature which states that staff involvement is associated with the success of TQM implementation program (Gross et al.., 2008; Mills et al.., 2003; Weiner et al.., 2006).

The analysis shows a statistically significant correlation between staff training and the implementation of QI as r =0.188 and P = 0.000. Despite the importance of staff training in QI, it should be made clear that the presence of training strategies and programs will not necessarily ensure better health outcomes. Training in quality improvement may improve knowledge and skills of the health professionals but the effect on patient health outcomes, resource use and overall quality of should be taken into consideration. Training should focus on patient outcomes rather than changing knowledge. 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.

The analysis shows insignificant correlation between organizational staff attitude and the implementation of QI as r =0.089 and P = 0.077. This could be explained by the view that QI is about changing staff behavior rather than attitudes. In doing so, the behavior of the staff is determined by the rules, standards, regulations, and the working environment. In the health care settings however, it is worth mentioning that the practitioners' attitudes are important to the adherence to clinical practice guidelines.

The analysis shows insignificant correlation between

organizational staff time & workload and the implementation of QI as r =0.093 and P = 0.065. 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. 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).

Table (20): 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

- **Infrastructural Factors:**
- The analysis shows a statistically significant 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 financial support significantly associated with greater scope and intensity of hospital-level QI implementation. (Alexander *et al*.., 2006; Buciuniene *et al*.., 2006). Financial support is fundamental to ensure that the expenditures on health care such as medicines, equipment, training, buying new technologies are sufficient. It should be made clear that while financial support is fundamental for the implementation of QI, this support should be used well. QI has the potential to optimize the use of the limited financial resources . If the financial resources are well optimized, investment in the health care by governmemt and international Demonstrable improvements in quality may encourage greater investment in health systems in developing countries by increasing donor, population and governmental confidence that resources are being used well.
- The analysis shows a statistically significant correlation between material resources and the implementation of QI as r =0.116 and P = 0.021. This result indicates that a successful implementation of QI is based on providing the required organizational infrastructure and material resources that will create a professional working environment. Such an environment will foster the growth of the staff and will lead to improvements that can not be otherwise achieved. Moreover supportive organizational infrastructure and material resources are associated with a higher level of involvement in QI programs across health care facilities. 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).
- The analysis shows a statistically significant correlation between HIS and the implementation of QI as r =0.225 and P = 0.000. This can be explained by the fact that successful QI implementation depends on the

availability and timeliness of information from which to identify problems and benchmark changes in healthcare processes. Information is needed in healthcare to identify the underlying causes of errors, evaluate the effect and efficiency of QI initiatives and facilitate the process of reporting and feedback. The result is consistent with the results found that the successful QI implementation is associated with the availability of HIS (Alexander *et al*.., 2006; Gross *et al*.., 2008)

Main results :

Factors hindering QI at Gaza MoH facilities.

The study 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 study found that neither the values of achievements and 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 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 study found that only about the half of respondents believed that MoH neither has a clear strategies and policies for staffing and recruiting the qualified employees nor training and 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 study found that 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 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.

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.

The status of QI implementation within MoH facilities.

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.

Associations between the implementation of QI and the organizational, individual, and infrastructural factors hindering QI.

The correlation between the implementation of QI at MoH and the organizational, individual, and infrastructural factors reached a statistically significant level only for: organizational structure, top management commitment, leadership, monitoring & supervision, staff training, staff engagement, HIS, financial support, and material resources.

The correlation between the implementation of QI at MoH and the remaining factors did reach a statistically significant level.

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 their QI implementation. Such recommendations aim to improve the effectiveness, efficiency, and the sustainability of QI:

Addressing the QI in the strategic planning as an approach to improve the provided healthcare services. The Ministry of Health should adopt a comprehensive strategic plan aiming at improving the technical and managerial performance in all its facilities, and to provide the necessary support for the implementation of this plan and to use all available means to achieve this purpose so that it becomes an integral part of all planning processes for all activities carried out by the ministry.

Enhancing the role of the MoH top management commitment to the QI. The Ministry of Health Should activate the role of senior management in its various facilities and increase the size of their participation in the adoption of the application of quality improvement activities and follow-up ,monitor the commitment and support provided by these departments to the quality issue. This requires training and providing the necessary support for the leaders to be more aware and able to deal with continuous change. Furthermore, the MoH should provide resources to obtain tools and personnel needed to do the jobs right. They are expected to set quality as a priority while allocating adequate resources to continuous quality improvement and evaluating employees based on their performance.

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

Establishing effective HRM strategies to ensure the presence of more qualified and professional members, and to achieve a formal reward program. The MoH should readdress the recruitment and selection procedures in order to achieve uniformity of approach, fairness, professionalism and transparency. The MoH should develop its own incentive policies for staff retention and recruitment professionals. The incentive system should be reconsidered to include a variety of incentives for outstanding performance in the application of quality.

Establishing effective training strategies and programs to build the capacities of MoH personnel about

the QI concepts, principles, and tools. MoH should secure the opportunities for continuous education of all health professionals in order to ensure that the current practices are according to best practices.

Encouraging and motivating MoH personnel to participate in the process of planning and decision making. The Ministry of Health Should work to institutionalize the quality concepts and principles among all its employees and not only limit this mission to specific unit or project funded by donors for a specific time period. The MoH should encourage bottom-up decision making and ensure that all personnel have similar opportunities to participate in the process of decision making and planning for quality.

Introducing the QI science in the curriculums of the health sciences colleges to promote the awareness about its concepts, philosophies, principles, and tools. QI should be integrated into the courses of Human Resources Development Department.

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العلاقة بين العوامل المعيقة لتحسين الجودة وتطبيق تحسين الجودة في وزارة الصحة الفلسطينية- غزة

نهاية التلباني ومحمود رضوان***

ملخـص

تهدف هذه الدراسة إلى فحص العلاقة بين العوامل المعيقة لتحسين الجودة وتطبيق تحسين الجودة في مرافق وزارة الصحة الفلسطينية. استخدمت الدراسة الأسلوب الوصفي التحليلي والنهج الكمي والنوعي معتمدةً على استخدام الاستبانة والمقابلات المعمقة كوسيلتين لجمع البيانات. تم استخدام عينة عشوائية طبقية متعددة المراحل لاختيار مقدمي الرعاية الصحية المؤهلين العاملين في وزارة الصحة في اثنين من المجمعات الطبية (الشفاء في غزة، وناصر في خان يونس)، وخمسة مراكز (مستوى رابع) للرعاية الصحية الأولية. وكان حجم العينة المحسوب 418، حيث تم استرداد 397 استبانة بنسبة استجابة 95%. تم إجراء مقابلات معمقة مع ثمانية خبراء كوسيلة ثانية لجمع المعلومات. وأظهرت النتائج أن أهم المعيقات لتحسين الجودة هو التزام الإدارة العليا ويليها ثقافة المؤسسة، والقيادة، ونظم المعلومات الصحية، وإدارة القوى البشرية، والتدريب، ومشاركة الموظفين. كما أظهرت النتائج الكمية محدودية تطبيق تحسين الجودة في مرافق وزارة الصحة (25.1%) . إضافة لذلك، فقد أظهر اختبار بيرسون وجود علاقة ذات دلالة إحصائية بين تطبيق تحسين الجودة وبين كلٍ من التزام الإدارة العليا، والهيكل التنظيمي، والقيادة، وإدارة القوى البشرية، والمراقبة والإشراف، وإشراك الموظفين، وتدريب الموظفين، والدعم المالي، ونظم المعلومات الصحية، والموارد المادية. يوصي الباحثان بإعطاء الأولوية لتحسين الجودة في التخطيط الاستراتيجي كنهج لتحسين الاداء وجودة الخدمات الصحية المقدمة في مرافق وزارة الصحة، إضافة إلى تعزيز دور الإدارة والقيادة من خلال نشر ثقافة الجودة، وتأمين الموارد، والاستثمار في التدريب.

الكلمات الدالة: تحسين الجودة، العوامل التنظيمية، عوامل البنية التحتية، العوامل الفردية، وزارة الصحة.

* جامعة الأزهر، غزة.

** وزارة الصحة.

تاريخ استلام البحث 2012/9/30، وتاريخ قبوله 2013/3/17.