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Assessing quality of management practices in Palestinian hospitals

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Abstract

Purpose – This paper aims to provide an assessment of the quality of management practices and implementation in hospitals operating in the West Bank of Palestine using the Malcolm Baldrige National Quality Award (MBNQA) Criteria.

Design/methodology/approach – Based on the MBNQA Criteria, a survey of 51 hospitals was conducted using questionnaires, interviews and focus groups to gather data. Data were analyzed and compared across all administrative types of hospitals using the MBNQA points system.

Findings – The results show that the performance of non-governmental organizations and private hospitals was superior with respect to all other administrative types. A closer look at the results show that all hospitals exhibit areas of concern such as human resource focus, information and analysis, as well as performance results.

Research limitations/implications – Despite the exclusion of hospitals operating in the Gaza Strip, this research promotes critical management practices aimed at improving quality of management practices and their subsequent implementation in the surveyed hospitals.

Practical implications – The MBNQA Criteria, as well as other quality assessment tools, can be used to measure the various activities of hospitals and identify competencies and weaknesses in a tangible manner to improve hospital performance.

Originality/value – This paper presents a fresh perspective on the quality management issues in Palestinian hospitals to practitioners, administrators and academics using the MBNQA Criteria. Also, it serves as a foundation for future initiatives and programs aimed at improving quality in hospitals.

Keywords Total quality management, Healthcare, Palestine, Baldrige award, Management practices

Paper type Research paper

1. Introduction

Total quality management (TQM) has gained wide popularity around the world, predominantly in developed countries (Calvo-Mora *et al.*, 2014; Chavez *et al.*, 2013; Evans and Lindsay, 1995; Dean and Bowen, 1994; Garvin, 1991). In this respect, substantial progress has been achieved in countries like the USA, Germany, Japan and the UK, to name a few, where efforts were directed at improving productivity, product quality, inventory management and other dimensions of the organization (Samson and



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Terziovski, 1999). Under the banner of TQM, efforts were specifically directed at improving leadership, workforce management, customer focus, use of information and analysis, process management and strategic planning (Gurumurthy *et al.*, 2013; Laohavichien *et al.*, 2011; Samson and Terziovski, 1999). However, in developing countries, the focus of quality control practices is on craftsmanship, which may not be effective and efficient enough for contemporary service quality systems (Lau *et al.*, 2004).

Palestine continues to face great challenges, politically, economically and socially; these challenges are pervasive in almost all economic sectors, many times contributing to dire consequences on society. Paramount to these challenges is an improved healthcare system; a system that adheres to a set of universally accepted standards in healthcare, and addresses the well-being of society by satisfying overall expectations. The healthcare system in Palestine is currently characterized by incoherency and inadequacy (Barghouthi and Lennock, 1997; Massad *et al.*, 2011), thus calling for more concentrated efforts to ensure the sector's future viability. Over the past few years, a number of organizations, primarily the Palestinian Ministry of Health (PMoH) (2011), have undertaken several initiatives to enhance the healthcare sector and the services offered, with quality improvement being the focal point of these initiatives.

The Palestinian healthcare sector can best be described as indiscriminate. This is due to the composition consisting of healthcare providers associated with different governing bodies ranging from private, public and non-governmental organizations (NGOs) to charitable organizations. The limited number of studies in reference to quality assessment of management practices in Palestinian healthcare organizations, combined with such diversity in administrative structures, underscores the need for this study as well as other studies aimed at promoting awareness toward TQM. This study will report on a recent survey of the current state of quality management implementation and practices in the Occupied Palestinian Territories (oPt) using the Malcolm Baldrige National Quality Award (MBNQA) criteria for healthcare institutions. The following research questions are empirically examined in this study:

RQ1. To what extent are TQM factors implemented in Palestinian hospitals?

RQ2. Are there any differences among the various administrative types of hospitals in terms of the implemented TQM factors?

Answering the above research questions will provide an assessment of management practices across different administrative types of hospitals, and contribute a deeper understanding of the value of each of the TQM factors. This could help practitioners in channeling their resources into areas that will have significant impact on hospital performance.

2. Literature review

Dating back to the 1970s and early 1980s, several organizations have adopted relatively new methods and programs aimed at improving their processes and productivity in the face of new challenges that were taking a horrendous toll in virtually every industry and sector. Among these methods and programs was the introduction of the TQM system: a system that has attracted tremendous attention from practitioners and academics resulting in a plethora of literature. The revolution of quality was pioneered by

W. Edwards Deming in the late 1970s followed by significant contributions made by Crosby (1979) and Juran (1989).

Spanning over several decades, a myriad of notable scholarly attempts was made to explore and better understand what and how TQM practices are implicated in organization life. Studies by Saraph *et al.* (1989) and Garvin (1983) were among the earliest to measure TQM practices across different industries and examine the relationship between TQM practices and organizational performance. A study by Das *et al.* (2000) attempted to study the relationship between different programs of TQM systems and their effect on performance. These studies as well as others, for example, Douglas and Judge (2001), Samson and Terziovski (1999), Adam *et al.* (1997) and Powell (1995), have produced inconsistent results which were mainly attributed to three research design-related differences:

- (1) one dimension versus multiple dimensions when TQM is operationalized;
- (2) variation in terms of what constitutes organizational performance, e.g. financial and operational; and
- (3) the type of analysis used in measuring the relationship, e.g. regressions or correlations.

More recent studies focused on studying the relationship between, for example, soft and hard TQM factors and key business results (Calvo-Mora *et al.*, 2014), lean practices and organizational performance (Chavez *et al.*, 2013), leadership – among other factors – and quality management (Laohavichien *et al.*, 2011), all of which have indicated that a positive relationship exists. Another recent study by Boulter *et al.* (2013) indicated that a stronger performance is achieved by TQM-oriented award-winning organizations. Moreover, the review of the literature indicated that most TQM factors, empirically examined in quality management literature, comprise more than one indicator, favoring the use of latent variable model (Sila and Ebrahimpour, 2005). This is quite similar to the logic in the MBNQA framework; each factor is measured by a group of indicators. Indeed, there are sufficient differences among the indicators that merit the use of a latent variable model, for example, Forza and Filippini (1998) and Kanji and Wallace (2000).

Notwithstanding the mixed and sometimes even conflicting results, the relationship between TQM and organizational performance continues to be pursued by virtually all organizations. Several quality awards and frameworks were established, for example, MBNQA established in 1987. This award, among others, was viewed as an advantageous way for categorizing the factors of TQM. Hence, for this reason, combined with the universality of such awards, this study adopts MBNQA as a guiding framework. A study by Bemowski and Stratton (1996) examined the usefulness of the MBNQA Criteria; the study found that MBNQA Criteria exceeded user expectations and was used as source of information to accomplish business excellence. Another study by Easton (1993) provides a qualitative assessment of MBNQA in which he concluded that TQM in the USA is far from mature and that TQM approaches should continue to evolve and develop.

2.1 Healthcare in the oPts

Healthcare in the oPt continues to suffer from countless obstacles: the ongoing occupation, inefficiencies in the healthcare system, corruption within governing bodies, lack of funding and a shortage of specialists in many fields, etc. As a result, up to this

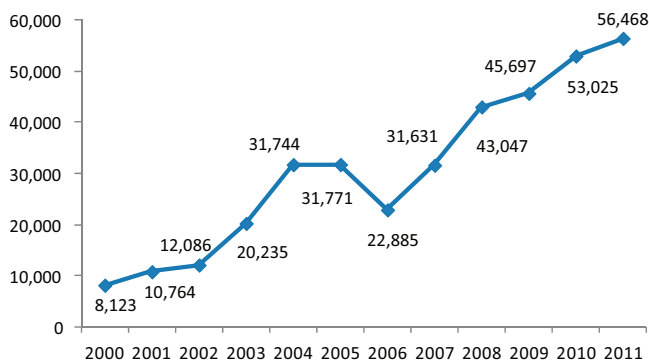
point, healthcare as a system remains a failing enterprise in the oPt. According to Hamdan and Defever (2002) and Matariya *et al.* (2009), nearly a generation has passed and most attempts to improve the effectiveness and efficiency to create an equitable system have proven unattainable. There are over four million Palestinians living in the oPt, with approximately 40 per cent of the population under the age of 15 years. In 2011, the Palestinian Central Bureau of Statistics (PCBS) reported that total health expenditure was 12.3 per cent of gross domestic product (GDP), averaging \$307 per capita (Preliminary Results of National Health Accounts in Palestine, 2013). In fact, as of the year 2011, despite an adult literacy rate of 92.4 per cent, the oPt suffers from an unemployment rate that hovers around 24 per cent, with 1.5 million Palestinians living below the poverty line of \$3.10 per day, and a donor-based economy with roughly 25 per cent of GDP comprising direct foreign assistance. This created an atmosphere embedded with great difficulties hindering the availability, accessibility and, ultimately, quality of healthcare services.

The structure of the Palestinian healthcare system includes primary healthcare centers (PHCs), secondary healthcare centers (i.e. Hospitals) and tertiary healthcare providers. In 2011, the total number of PHCs was 748, an increase from 672 in 2010. The UNRWA operates 61 PHCs, whereas NGOs operate 206 PHCs, with the remaining PHCs under the administrative control of the PMoH (PMoH Annual Report, 2011). According to the PMoH (Annual Report, 2011), there are 81 hospitals operating in the oPt with a total number of beds numbering 5,414. Of the 81 hospitals, 51 are located in the West Bank. Table I illustrates the distribution of the total number of hospitals, including the number of beds according to the governorate in which they operate[1].

According to Giacaman *et al.* (2009), the Palestinian Authority (PA) continues to upgrade and expand its health system infrastructure through institutionalization, capacity building and human resource development. Despite these efforts, Giacaman *et al.* (2009) further argue that patient referrals by the PMoH to countries such as Egypt, Jordan and Israel continue to highlight the lack of adequate quality in the healthcare services provided by PMoH, as referenced in Figure 1. The lack of desired quality levels can be attributed to restricted mobility, management and accountability, as well as the

Governorate	Healthcare provider type									
	Public		NGO		UNRWA		Private		Total	
	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds	Hospitals	Beds
Bethlehem	2	299	4	241	0	0	2	27	8	567
Hebron	2	246	3	200	0	0	4	86	9	532
Jenin	1	123	1	10	0	0	1	37	3	170
Jericho	1	54	0	0	0	0	0	0	1	54
Jerusalem	0	0	6	515	0	0	3	52	9	567
Nablus	2	267	2	111	0	0	2	138	6	516
Qalqilia	1	56	0	0	1	63	1	17	3	136
Ramallah	1	164	2	63	0	0	5	91	8	318
Salfit	1	50	0	0	0	0	0	0	1	50
Tulkarm	1	108	2	45	0	0	0	0	3	153
Total	12	1,367	20	1,185	1	63	18	448	51	3,063

Table I.
Distribution of
hospitals and beds
according to
administrative type
and governorate in
the West Bank



Source: PCBS (2011)

Figure 1.
Annual patient
referrals from
Palestinian hospitals

presence of under-qualified healthcare providers, and weak institutional capacity for monitoring and assessment.

3. Theoretical framework

The underlying assumption for choosing the most appropriate theoretical framework in this study is governed by a holistic approach that captures the main factors of TQM. In this respect, the awards criteria were found to be the most comprehensive and universally acknowledged approach. The MBNQA, regarded as one of the most well-known awards, is adopted as the guiding framework in this study allowing the empirical analysis thereafter to be categorized based on the main criteria of the MBNQA. There are several studies that have used the MBNQA. For instance, *O'Rourke et al., (2001)* and *Lau et al. (2004)* used the MBNQA award because of its international standard for performance excellence and its ability to provide a comprehensive framework for both practitioners and administrators; it is capable of identifying organizational strengths and weaknesses, as well as key areas for improvement. Other studies have adopted MBNQA for its ability to correspond with the basic principles of TQM (*Evans and Jack, 2003; Wilson and Collier, 2000; Ahire et al., 1996; Black, 1993*).

In this section, a brief presentation of the seven award criteria is provided. The empirical analysis aims to validate these seven factors as constructs through which the quality of management practices in the Palestinian hospitals can be assessed:

- (1) *Leadership*: Against the backdrop of technological innovation, a growing knowledge workforce, and shifting social and demographic trends faced by organizations worldwide, few could argue that a major objective of management practices is leadership (*Limerick and Cunningham, 1993; Kanter et al., 1992; Bass, 1985*). Leadership has the ultimate responsibility for setting the strategic direction and establishing systems that will facilitate high organizational performance. The leadership element has multiple dimensions: the creation of a unifying purpose, motivating change, managing the environment and cultivating a participatory approach to improved performance.
- (2) *Human resource management*: This particular element addresses the human resource effectiveness in the organization in terms of recruitment, training and

development, communication, workforce safety and satisfaction. [Garavan \(1993\)](#) argued that human resource management has the most profound impact on organizational performance.

- (3) *Customer focus*: how attentive the organization is to customer needs and expectations and how effective the organization is in terms of managing customer relationships. Becoming a customer-oriented organization has become one of the major challenges facing organizations ([Armstrong, 1999](#)); tailoring and implementing strategies aimed at improving customer satisfaction should be at the heart of any organization.
- (4) *Strategic planning*: According to [David \(2001\)](#), strategic planning is a skill which requires practice; organizations that actively practice this skill have a higher chance of improving their performance. This element focuses on how the organizations go about formulating and implementing their plans with a focus on the customer and the workforce.
- (5) *Information and analysis*: This element is concerned with the scope, management and use of data and information to maintain a customer focus, to drive quality excellence and to improve performance ([MBNQA, 1995](#)). A case in point, several TQM techniques such as Pareto charts and cause-and-effect analysis are aimed at helping organizations to process information effectively.
- (6) *Process management*: From an open-system perspective, organizations are viewed as a number of subsystems that are integrated together to make a unified whole system ([Doyle, 2000](#)). This element of TQM is responsible for assessing how organizations design and introduce their products and services; it looks at the entire supply chain. [Deming \(1986\)](#) viewed organizations as interlinked processes, and that improvement in these processes is the basis for performance improvement.
- (7) *Performance results*: Several indicators make up the domain for this element: quality performance, operational and business performance, customer satisfaction, organizational growth and employee satisfaction.

[Figure 2](#) shows the seven factors of MBNQA and the interplay among these factors. This is in line with what [Deming \(1986\)](#) has stated regarding the importance of integrating these various activities, as well as linking them profoundly with results.

4. Methods

As this is a primarily quantitative cross-sectional study, the survey approach was used to provide answers to the research questions mentioned in Section 1. The MBNQA measurement of the healthcare industry developed by Malcolm Baldrige, which constitutes both soft and hard practices of TQM, was slightly modified and adopted in this study. This study targeted a total of 51 hospitals that were in operation at the time of field work, drawn from the database of the PMoH. After proper orientation, a group of research assistants was divided among the different governorates throughout the West Bank to collect information; out of 550 questionnaires, a total of 501 questionnaires were returned, out of which 491 questionnaires were deemed usable. Factor loadings among other statistical analysis were applied, emphasizing the empirical nature of this

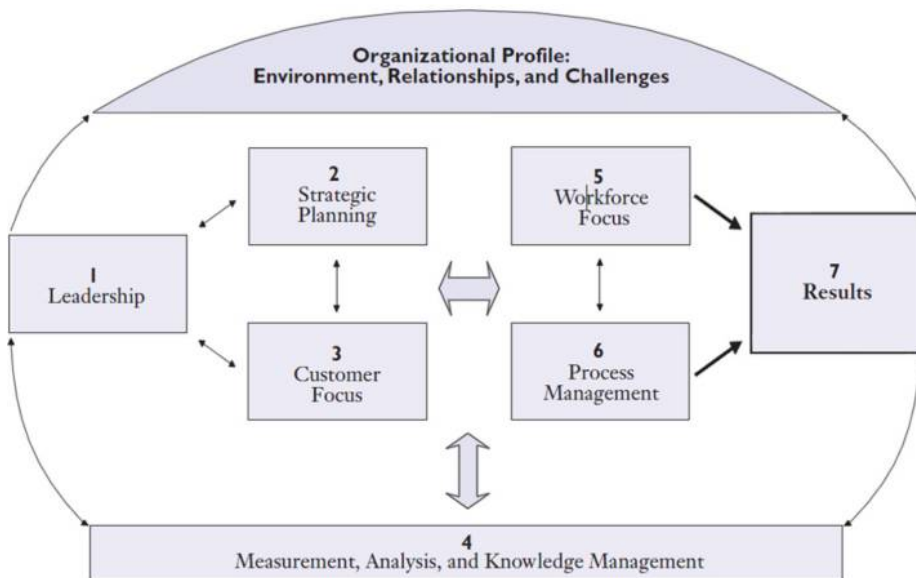


Figure 2.
The Seven factors of
the MBNQA

Source: Adapted from Malcolm Baldrige National Quality Award (1995)

research. The sub-sections hereafter provide a detailed description of the specific methods applied in this research.

4.1 Sample

At the time of the study, there were 51 hospitals operating in the West Bank, Palestine. This information was obtained and compared from two databases, PMoH and PCBS. Of the 51 hospitals in operation, 49 agreed to have their employees participate in the study.

The sample subjects were employees working in hospitals in the West Bank, Palestine. The subjects who participated in the study were representing different professions found in hospitals: physicians, nurses, technicians and administrators. A satisfactory sample size was determined to be 550, based on an estimated number of 20,000 employees working in the participating hospitals; Sekaran and Bougie (2009, p. 269) argued that “a sample size larger than 30 and less than 500 is appropriate for most research”. As for each hospital’s share of the total distributed questionnaires, it was determined using the total number of beds; a worldwide accepted indicator of hospital size (Magnussen, 1996). A total of 501 questionnaires were completed returned.

4.2 Survey instrument and measures

In this research study, the factors that were used consisted of 62 indicators. The measurement instrument was a ten-page questionnaire made up of eight sections, out of which seven sections had a total of 62 questions addressing the seven dimensions of the MBNQA framework. The eighth section was devoted entirely to collect background information about the participants. All 62 questions used in the questionnaire were of a Likert-scale type, which corresponded with Baldrige National Quality Program Report

(2009/2010). The questions were slightly modified to fit the context of the study. Although the original questionnaire was developed in English, it was necessary to translate it into Arabic to get a better response. The translation of the questionnaire was performed by a professional translator experienced in translation in the business field. The questionnaire was pilot tested in two hospitals among 35 participants. On the basis of the participants' comments, the questionnaire was revised and modified for more clarity on words and formatting.

The factors used in this study are very similar to those used by Flynn *et al.* (1994) and Ahire *et al.* (1996). All the factors here can be defined as a set of latent variables which cannot be measured directly. In accordance with MBNQA Criteria, the seven factors are collectively assigned a total number of 1,000 points, which are, in turn, allocated among each of the factors accordingly:

- (1) *Leadership*: 120 points.
- (2) *Strategic planning*: 85 points.
- (3) *Patient and sector focus*: 85 points.
- (4) *Information and analysis*: 90 points.
- (5) *Human resource focus*: 85 points.
- (6) *Process management*: 85 points.
- (7) *Performance results*: 450 points.

Based on the responses made by the participants, factor loadings were calculated and used subsequently in computing the points for each hospital out of a maximum 1,000 points.

4.3 Data management

Two distinct stages of data management and preparation were performed prior to conducting the main analysis.

4.3.1 Selection of questions. The selection of the questions to be included in the final data set was formulated in line with [Baldrige Quality Program Report \(2009-2010\)](#) and reaffirmed through a focus group, as well as through interviews with experts from the Faculty of Nursing and Applied Health Professions at Birzeit University. Questions found irrelevant to and outside the scope of this study were discarded, e.g. questions on the extent of using medical technology are perhaps relevant to other studies but not to this investigation of TQM implementation. Hence, the seven factors and their corresponding 62 variables deemed related to TQM, particularly in the context of this research, were used in the analysis. In addition, the selection of questions corresponds to issues found in the literature (Powell, 1995; Flynn, 1994). The seven factors discussed in Section 3 were assigned the labels to facilitate the analysis thereafter (Table III).

4.3.2 Management of incomplete responses. The second stage in the data management was the treatment of incomplete responses – a requirement of factor analysis is that all cells in the data set must be complete. For the purpose of the analysis reported in this study, questionnaires with more than seven empty cells among the 62 variables were discarded from the data set. Accordingly, this approach yielded a total of 491 questionnaires of which 70 questionnaires had less than seven missing cells. Missing cells were replaced with the variable means (Sekaran and Bougie, 2009).

4.4 Validity and reliability

To make sure that this study is truly measuring what it set out to measure and to provide assurance that the findings reflect an accurate measure of the seven factors of MBNQA, information regarding validity and reliability is needed.

Validity in this study had two dimensions. First, content validity was established by comparing between the measurement items of each variable with an extensive review of literature and evaluation criteria of international quality awards; measures used in this study were capable of capturing TQM factors. Second is construct validity, which was confirmed using the Principal Components Factor Analysis (Jolliffe, 2005). As shown in Table IV, all measurement items were factor analyzed producing only one item (SP7) with factor loading of slightly less than 0.450. All factors' loading were acceptably good.

As for reliability, an internal consistency for the seven factors was estimated using the reliability coefficient Cronbach's alpha ranging between 0.00 and 1.00. As shown below in Table II, an internal consistency was performed separately for each of the seven factors. The results show that all α values range between 0.674 and 0.888, indicating that all scale variables demonstrate an acceptable level of reliability. Cronbach's alpha for all the factors used in this study meet the acceptable value 0.6 (Sekaran and Bougie, 2009; Hair *et al.*, 2006; Kaiser, 1974).

5. Results

The following section provides a summary of the main findings of the analysis. Table III provides a summary description of the hospitals included in the study, and the characteristics of the participants.

Table III indicates that most professionals employed in Palestinian hospitals are highly educated. This was most evident in private sector hospitals, where 16.5 per cent of the respondents were holders of graduate and post-graduate academic degrees. Additionally, the vast majority of respondents included physicians and nurses (65 per cent), followed by administrative employees (24.9 per cent). The overall distribution of respondents according to gender was 44.3 per cent females, whereas males represented the remaining 54.7 per cent. In terms of administrative types, the highest rate of responses came from NGO hospitals (45 per cent), which is primarily due to two factors:

- (1) the highest number of inadmissible questionnaires came from public hospitals; and
- (2) the lack of cooperation from two hospitals (one public and one private).

As previously mentioned, this study used the MBNQA Criteria as a framework to assess quality of management practices in Palestinian hospitals in the West Bank. The seven

Factors	No. of items	Cronbach's alpha	
Leadership	8	0.745	
Strategic planning	10	0.824	
Patient and sector focus	7	0.674	
Information and analysis	5	0.689	
Human resource focus	8	0.888	
Process management	11	0.812	
Performance results	13	0.885	

Table II.
Internal consistency analysis for individual factors and overall construct

Indicator	Public	Private	NGO	UNRWA
<i>Organizational capacity</i>				
Average number of beds	132	35	79	63
Average number of staff	273	109	214	118
Average number of departments	16	6	11	7
Average age of organization (years)	47	17	52	62
<i>Distribution of Respondents</i>				
Respondents according to hospital type (%)	29	24	45	2
<i>Gender</i>				
Male (%)	59	51	55	64
Female (%)	41	49	45	36
<i>Occupation</i>				
Physicians (%)	22.2	17.4	20.8	18.2
Nurses (%)	43.1	49.6	43	45.5
Technicians (%)	7.6	12.4	10.4	9.1
Administrative (%)	27.1	20.7	25.8	27.3
<i>Level of education</i>				
Summary profile of participating organizations and respondents	3.5	7.4	1.4	0
PhD (%)	11.1	9.1	10.8	9.1
Master's (%)	61.8	51.2	61.7	45.5
Bachelor's (%)	23.6	32.2	26.1	45.5
Diploma/Other (%)				

Table III.
Summary profile of participating organizations and respondents

MBNQA Criteria are leadership, strategic planning, patient and sector focus, information and analysis, human resource focus, process management and performance results. The results of the analysis are summarized in [Table IV](#), which shows the mean and factor loadings for each measurement item for the seven factors in addition to the Cronbach's alpha scores for each factor.

In addition, [Table V](#) provides useful insights and information which compares the varying levels of performance across different hospital administrative types. This particular information will be needed in answering the second research question.

[Table V](#) shows the different average scores of the seven factors for each administrative type. The table also shows the MBNQA points scored by each administrative type; the average scores were converted using the MBNQA points system. The MBNQA scores were obtained by multiplying each measurement's factor loading by the weighted average (total number of measurement items for each factor divided by the maximum score for that factor, e.g. leadership, the eight measurement items used for leadership are divided by a maximum score of 120) for every measurement item. As for the factor loadings, they were calculated by dividing the mean by the number of possible responses; in this case, five, given the application of a five-point Likert-type response format.

6. Discussion and implications

The overall scoring system in [Table V](#), out of a possible 1,000 points, shows that Palestinian hospitals in the West Bank are operating at relatively acceptable performance levels based on the responses. According to the MBNQA scoring system,

Item	Mean	Factor loadings	Cronbach's a
<i>I. Leadership</i>			0.745
L1.	Senior management emphasizes the importance of patient care	4.32	0.865
L2.	Senior management focuses on improving patients' care	4.18	0.837
L3.	Senior management is accessible to patients	4.15	0.830
L4.	Senior management adapts its operational strategies to sector trends	3.17	0.635
L5.	The Institution employs ethical practices relative to the rest of the sector	4.01	0.802
L6.	The Institution anticipates public concerns about its products, services, and operations	3.93	0.786
L7.	The Institution does participate enthusiastically in social or community services	3.29	0.658
L8.	Senior management actively seeks feedback	3.58	0.717
<i>II. Strategic planning</i>			0.824
SP1.	Clarity of the Institution's strategic objectives	3.89	0.778
SP2.	Strategic objectives are in line with external factors (sector trends and competition)	3.76	0.752
SP3.	Strategic objectives are in line with internal factors (e.g. available resources)	3.78	0.757
SP4.	Strategic objectives and plans are effectively communicated to all staff	3.38	0.676
SP5.	staff members are aware of the strategic objectives and the plans to be accomplished	3.07	0.614
SP6.	Staff members commitment toward strategic objectives and plans	3.45	0.690
SP7.	Supplier capabilities are essential when selecting our suppliers	2.16	0.433
SP8.	Integrating public responsibility into performance improvement efforts	3.78	0.756
SP9.	The staff adheres to a formal code of ethics	4.06	0.812
SP10.	Leadership in efforts to improve community services	3.29	0.659
<i>III. Patient and sector focus</i>			0.674
P1.	The institution identifies its target patients well	4.05	0.811
P2.	The institution addresses our patients' opinions and suggestions seriously	3.44	0.689
P3.	The institution analyzes and disseminates patients' needs in a timely manner	3.50	0.700
P4.	A well-established communication channel with Patients	3.86	0.772
P5.	An effective Patient management system is in place	3.75	0.750
P6.	The institution monitors other institutions' actions in the same sector	3.43	0.687
P7.	The institution is fully aware of sector trends	3.50	0.700

(continued)

Table IV.
Evaluation of TQM
measurement
instrument: factor
structure and factor
loadings

Item	Mean	Factor loadings	Cronbach's a
<i>IV. Information and analysis</i>			0.689
IA1. The institution has an effective system of assessing operational performance	3.51	0.703	
IA2. The institution does have a clear, comprehensive appraisal system	3.22	0.645	
IA3. All staff understand the indicators linked to their performance	3.54	0.708	
IA4. The institution adjusts its performance according to changes in the environment	3.50	0.700	
IA5. Senior management adjusts the institution's policy and strategy by analyzing information	3.37	0.674	
<i>V. Human resource focus</i>			0.888
HR1. The institution empowers its staff	3.35	0.671	
HR2. The institution has an effective appraisal system for recognizing and rewarding staff for their efforts	3.13	0.627	
HR3. The institution encourages teamwork and team spirit	3.53	0.706	
HR4. The management motivates staff and fully develops their potential	3.10	0.621	
HR5. The institution trains its staff in quality concepts	3.44	0.689	
HR6. The institution provides training and development for staff members	3.45	0.690	
HR7. The institution provides a safe and healthy work Environment	3.66	0.732	
HR8. The institution provides staff with patient-focused training	3.57	0.715	
<i>VI. Process management</i>			0.812
PM1. In designing processes factors like quality, costs, and productivity, are considered	3.13	0.782	
PM2. Before applying new procedures, the institution conducts comprehensive tests to assure quality	3.74	0.748	
PM3. The institution has appropriate management measures to control and improve delivery processes	3.58	0.716	
PM4. The institution continuously improves its delivery processes, to enhance service quality	3.72	0.744	
PM5. Process improvement initiatives are shared among departments	2.92	0.584	
PM6. Individual departments work to improve their Processes	3.15	0.630	
PM7. The institution closely cooperates with its Suppliers	3.58	0.717	
PM8. Evaluating services on the basis of efficiency, including cost and timeliness	3.59	0.718	
PM9. Evaluating services on the basis of effectiveness, including appropriateness and risk	3.49	0.698	
PM10. Work procedures and possible outcomes are explained in advance to patients	3.82	0.765	
PM11. Healthcare services are contingent according to patients' needs	3.92	0.784	

Table IV.

(continued)

Item	Mean	Factor loadings	Cronbach's a
<i>VII. Performance results</i>			0.885
PR1. Patients are satisfied with the services	3.85	0.771	
PR2. The institution is able to meet its financial Obligations	3.33	0.667	
PR3. The system of remuneration and benefits is satisfactory	2.79	0.559	
PR4. The staff is satisfied with their respective department	3.24	0.648	
PR5. Healthcare services are expanding	3.59	0.719	
PR6. Overall service quality is improving Steadily	3.70	0.740	
PR7. The productivity is rising steadily	3.72	0.745	
PR8. Patient evaluations of performance have been improving	3.71	0.743	
PR9. The number of doctors is sufficient	3.17	0.635	
PR10. The number of nurses is sufficient	3.11	0.622	
PR11. The number of technicians is sufficient	3.22	0.644	
PR12. The number of administrative employees is sufficient	3.73	0.746	
PR13. The number of janitors is sufficient	3.25	0.650	

Table IV.

the achieved scores indicate that these hospitals are relatively effective and somewhat responsive to the overall requirements of the MBNQA Criteria. The scores also reflect that some organizational learning aimed at further improving the effectiveness and efficiency of overall performance is present. The results of the analysis were found to be quite similar to the results found in similar studies carried out by [Manjunath *et al.* \(2007\)](#) and [Lau *et al.* \(2004\)](#). However, it should be noted that these scores were based on the direct responses of those employed by the participating organizations, rendering this effort a self-assessment process, as opposed to an external audit or evaluation, where the scores could possibly be lower ([Lau *et al.*, 2004](#)). In addition, the absence of a benchmarking mechanism (entailing the use of comparative information about quality which should identify, document and apply best practices) further exacerbates the relatively high scores achieved ([Baidoun, 2003](#)).

When comparing different hospitals across administrative types, public hospitals scored lowest according to the MBNQA Criteria, whereas private- and NGO-run hospitals scored highest. The low overall score of public hospitals (636 points) can be attributed to several factors. First, public hospitals, on average, have the highest number of departments, which indicates lack of integration and coordination among different departments within the organization ([Giacaman *et al.*, 2009](#)). Also, communication channels also tend to be more ineffective. Second, public hospitals serve the majority of the population in the oPt, which often exposes them to a larger and more varied number of patients and their subsequent demands, thus straining already limited resources. Third, the dire financial condition of these organizations continues to negatively impact their progress and development ([Schoenbaum *et al.*, 2005](#)). On the other hand, averaging 17 years in operation, private hospitals (761 points) have benefited from a relative abundance of resources and a more concentrated allocation of resources in key areas. Also, NGO hospitals (750 points) have historically served as a link between various international agencies and Palestinians, thereby affording these hospitals benefits such as financial support ([Matariya *et al.*, 2009](#)), increased exposure to international expertise and more established administrative practices.

Table V.
MBNQA scored
points by
administrative type

MBNQA factors	Public		NGO		UNRWA		Private	
	Average score ^a	MBNQA points	Average score	MBNQA points	Average score	MBNQA points	Average score	MBNQA points
Leadership	0.71	86	0.79	94	0.80	96	0.79	95
Strategic planning	0.63	54	0.73	62	0.73	62	0.72	61
Patient and sector focus	0.65	56	0.76	64	0.75	64	0.77	65
Information and analysis	0.61	55	0.72	65	0.72	65	0.72	64
Human resource focus	0.62	52	0.72	61	0.68	58	0.70	59
Process management	0.85	73	0.95	81	0.94	80	0.97	83
Performance results	0.58	261	0.72	323	0.70	313	0.74	334
Total		636		750		738		761
								1,000

Note: ^aThe average score for each sub-criteria of the MBNQA (between 0 and 1) were converted into MBNQA points by multiplying the average score by the maximum points for each scale

A closer examination of each MBNQA criterion reveals that process management across all administrative types realized the highest scores with an overall average of 93.2 per cent, thus indicating that hospital procedures and regulations are standardized and adhered to by staff. Feedback from patients is frequently sought and integrated into improving processes. Despite the high overall score for process management, different departments should be encouraged to take initiatives to improve processes rather than improvements being enforced by senior management. Similarly, [Manjunath *et al.* \(2007\)](#) argued that different departments should be encouraged to share their initiatives with other departments. In contrast to process management, the human resource focus factor realized the lowest scores with an overall average of 67.6 per cent. Generally, this can be attributed to employee perception of the current appraisal and rewarding systems to be insufficient and ineffective. Responses indicated that organizations were unable to consistently motivate their employees, and ceased to sufficiently provide the means by which employees could fully develop their potential. A study by [Al-Adham \(2004\)](#) reported on the low morale of employees working in the Palestinian healthcare sector due to lack of encouragement and incentives.

While the previous section demonstrated processes, the remaining MBNQA Criteria to be discussed emphasize performance results, which represent almost half of the overall score. Therefore, it can be determined that MBNQA is results oriented. With a maximum score of 450 points, the overall average score for hospitals in the West Bank is 308 (68.4 per cent). This score can be explained by several key factors which collectively prohibit the advancement and progress of the organization. For one, the level of satisfaction employees have in their respective departments was found to be low. Second is the lack of staff on all levels, ranging from physicians, nurses and technicians to janitorial staff ([Giacaman *et al.*, 2009](#)). Third is the overall financial burden shared by almost all administrative types, throughout their various organizations, which can be attributed to the organizations' inability to consistently meet their financial obligations. This has produced a low level of employee satisfaction with their remuneration and benefits systems. It should be noted that public hospitals scored the lowest in this particular criterion (261 out of 450). This result reaffirms the argument regarding the overall score attained by public hospitals.

Upon applying the MBNQA scoring system across all participating hospitals, the results further emphasize that private and NGO run hospitals are by far, the best hospitals operating in the West Bank from a quality management standpoint; four NGO hospitals and three private hospitals had a scoring of 800 points and above (out of a possible 1,000 points). The highest score of 939 points was realized by an NGO hospital. Furthermore, the hospitals scoring below 600 points were three public hospitals and one locally based NGO hospital. Interestingly enough, the highest rated public hospital scored 723 points, ranking twentieth out of the participating hospitals.

In light of the current assessment of quality of management practices, and the continuous increase of patient referrals ([Figure 1](#)), three managerial implications were relevant to the surveyed hospitals. First, hospital strategies must focus on developing existing competencies and skills of staff, aimed at improving their performance in a quality-oriented approach. Hospitals need to engage staff through training and development programs tailored around quality concepts which could have a positive impact on raising the awareness and understanding of staff about quality, hence subsequently, resulting in improved staff responsibility toward advancing quality

performance. In addition, hospitals need to develop comprehensive appraisal systems, with clear guidelines to consistently and accurately evaluate staff performance. This is in line with findings from a study by Bhanugopan *et al.* (2013) conducted in a neighboring country (Jordan) which emphasized a holistic system encompassing the four dimensions of human resource management, namely, recruitment and selection, training and development, performance appraisal and rewards and benefits. In a service sector such as healthcare, a motivated staff is critical to delivering quality services to its recipients. Therefore, given the limited resources that hospitals suffer from, it has become mandatory to think of and implement new ideas for motivating staff.

Second, information and analysis in any type of organization are considered an integral part of the decision-making process. Given that hospitals aspire to improve the quality of their decisions and ultimately the level of quality services offered, they need to design and oversee communication channels that guarantee a good flow of information between different stakeholders, both internal and external. A good communication system will provide benefits to the organization by ensuring that information is accessible, current, and valid. Hospital management must consider both traditional and modern ways of obtaining information from relevant stakeholders so that this information and its subsequent analysis are incorporated into the process of formulating strategies. In addition, management needs to maintain a very close relationship with its staff, hence facilitating the process of obtaining information, as well as communicating management strategies and objectives effectively.

Third, almost all hospitals operating in the West Bank must develop results-based strategies aimed at improving both operational and financial management to improve their overall performance. They should aggressively continue working on developing their resources such as financing, personnel and facilities with the goal of providing more and better healthcare services at improved efficiency levels. Organizational restructuring and financial reform must be considered as a way of improving quality in terms of better allocation of resources, facilitation of decision making and more sustainable financing methods. Management teams across all administrative types should strive toward developing quality indicators to ensure that quality performance is measured against a set of criteria, thus allowing them to take action in improving quality.

7. Conclusion

7.1 Theoretical implications

This study highlights the importance of applying TQM practices in healthcare institutions, particularly hospitals operating in West Bank – Palestine. A theoretical perspective poses arguments in favor of applying TQM practices in hospitals. In particular, some theoreticians postulate that applying TQM practices would result in improved performance of the hospital and its staff members, therefore attaining an ultimate goal of hospitals, satisfying patients. In addition, investing rigorous efforts to develop the capacity of those employed in a healthcare institution is fundamental for an appropriate utilization of TQM factors. As such, a hospital that operates as a learning institution, whereby its staff members are constantly learning and evolving, has the ability and capacity to deploy TQM factors more effectively. The mere recognition that people are the main driver for developing the performance of hospitals is essentially critical.

7.2 Overall managerial implications

The findings in this research clearly recognize that hospitals cannot consider TQM simply as a passing administrative trend or a cure-all for achieving sustainable performance over time. Rather, TQM fosters accumulation of institutional capabilities through its human resource management practices. Therefore, TQM cannot be dismissed as just being an administrative fashion because it provides a typical institutional resource by which hospitals can improve their performance.

Application of TQM in human resource practices serve as a means for hospitals to promote development capabilities and improve the quality of services. Hospitals should also understand the logical sequence between quality objectives and performance objectives. Alternatively, hospitals must find ways not only to implement quality control approaches, but to evolve toward continuous learning.

7.3 Limitations and future lines of research

Limited research has been done to assess the overall quality of all hospitals operating in the West Bank, particularly from a managerial perspective. This study reports on the current condition of quality management in healthcare institutions using the MBNQA Criteria.

Although this research is considered relatively large in terms of its comprehensive nature, it does suffer from limitations, which, in turn, can stimulate future and further research. The sampling technique used, using other methods, could have produced varying results. The availability of a list of employees working in hospitals could provide even more accurate results for further empirical research (sample framework).

The research reported here is concerned with hospitals operating in West Bank, Palestine. The researchers were unable to account for the hospitals operating in the Gaza Strip for reasons that are beyond the scope of the study. Hence, the results in this study are generalizable only to West Bank hospitals. In this respect, future research should focus on hospitals in the Gaza Strip which will allow for cross-regional analysis. In addition, future qualitative research will prove to be valuable. This will not only corroborate the findings of quantitative studies but could also shed light on additional systematic factors that will ultimately enhance the measuring strength of TQM factors.

Note

1. The West Bank of the oPt was the *de facto* focus of the study, due to the political and military restrictions on the Gaza Strip which limited the accessible areas for field work.

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