

The Impact of Applying Total Quality Management Principles on Crisis Management: An Applied Study on Iraqi Public Hospitals

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Abstract: The concept of total quality is considered one of the very important concepts in the economic, administrative and industrial fields in this era, as most productive organizations have begun to follow the total quality management approach due to its importance as a basic input to confront the challenges faced by these organizations, as quality is a measure that enables organizations to compete and build in light of globalization.



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Introduction

Total quality management is also considered one of the most important topics that have attracted great attention from practicing managers and academic researchers as one of the prevailing and desirable management styles in the current period. The concept of total quality management is a modern management philosophy based on a number of modern management concepts directed at it in combining Basic administrative means, innovative efforts and specialized technical skills in order to raise the level of performance and continuous improvement and development. Most studies have found that the application of total quality management has positive repercussions on the performance of the organization that applies it, through improving the profitability rate, reducing costs, raising production efficiency, improving current performance and paying attention to its continuity, and with the presence of indicators that show the feasibility of total quality management has increased in importance and the speed of its spread. Al-Maaytah and Abu Zaid, 2021).

Nowadays, organizations are seeking in an unprecedented manner to improve and develop their outputs (services, products), as this pursuit is considered an ideal way to strengthen and enhance the competitiveness of organizations and achieve the competitive advantages sought from that pursuit, as many stakeholders and researchers have referred to quality as those dimensions and technical characteristics only. On the other hand, recent studies have indicated the impermissibility of this expression, considering that quality is a concept that goes beyond the traditional concept that was referred to, because quality has many administrative dimensions, especially those related to the job performance of its employees, which is considered the basic supplement to the technical characteristics (Shamout and Jawazna, 2022).

Crises are influential and important events in organizations, as they have become an integral part of today's environment. It also constitutes a source of concern for the leaders and officials of organizations due to the difficulty of controlling it, due to the sudden and difficult changes in the surrounding environment. The weak responsible administrations have adopted this by building an appropriate administrative model that enables the organization to confront its crises quickly and effectively.

“Contemporary organizations face multiple rapid and sudden environmental changes for various reasons, which may cause the occurrence of multiple types of crises that differ in the causes and levels of their occurrence, the severity of their impact, and the degree of their recurrence. In order for organizations to be able to confront crises, they must first determine the nature or type of crisis, but determining the type of the crisis is not an easy process, because the crisis, by its nature, involves several intertwined administrative, economic, humanitarian, geographical and political aspects, and thus Classifications are numerous and diverse based on multiple criteria used in the process of determining types of crises.

The application of Total Quality Management (TQM) principles in building a robust administrative model enables hospitals to respond quickly and effectively to crises. This focus enhances the performance of employees through continuous improvement practices and assists in the rapid and effective identification and resolution of problems during crises.

Research Problem

Iraqi public hospitals suffer from significant challenges in crisis management, negatively impacting the quality of healthcare services and increasing resource wastage and operational inefficiency. Despite the effectiveness of TQM principles as tools to improve institutional performance, their application in Iraqi public hospitals remains limited and unsystematic. This raises the question of how the application of TQM principles (directed leadership, employee empowerment, continuous improvement, customer focus, feedback) affects crisis management in Iraqi public hospitals.

Research Questions

1. How does the application of directed leadership improve crisis management in Iraqi public hospitals?
2. What is the impact of empowering employees and increasing their participation in decision-making on crisis management in public hospitals?
3. How do continuous improvement processes enhance the ability of public hospitals to manage crises effectively?
4. How does focusing on the needs of patients and hospital service beneficiaries affect crisis management in public hospitals?
5. How can feedback from employees and patients contribute to improving the crisis response of public hospitals?

Significance of the Research

Theoretical Significance

This study contributes to the academic understanding of TQM and crisis management in the healthcare sector by providing a comprehensive theoretical framework that can serve as a reference for researchers and specialists. It also opens new avenues for future research and enhances the theoretical knowledge of TQM application in specific contexts, such as Iraqi public hospitals.

Practical Significance

Practically, this study offers valuable recommendations for practitioners in hospital management, particularly in Iraqi public hospitals. By applying TQM principles, hospitals can improve operational efficiency, enhance the quality of healthcare services, increase employee and patient satisfaction, and build stronger community relations.

Research Objectives

The primary objective of this study is to explore the impact of Total Quality Management (TQM) principles (directed leadership, employee empowerment, continuous improvement, customer focus, feedback) on crisis management in Iraqi public hospitals. To achieve this objective, the following sub-objectives were defined:

1. Determining the impact of directed leadership on improving crisis management in Iraqi public hospitals.
2. Assessing the effect of empowering employees and increasing their participation in decision-making on crisis management.
3. Investigating how continuous improvement processes contribute to enhancing the ability of public hospitals to manage crises effectively.
4. Evaluating how focusing on patient and beneficiary needs influences crisis management.
5. Understanding how feedback from employees and patients can improve the hospital's crisis response.

Main Hypothesis

- Main Hypothesis: There is no statistically significant impact ($\alpha \leq 0.05$) of applying TQM principles (directed leadership, employee empowerment, continuous improvement, customer focus, feedback) on crisis management in Iraqi public hospitals.

Sub-Hypotheses

1. There is no statistically significant impact ($\alpha \leq 0.05$) of applying directed leadership on crisis management in Iraqi public hospitals.
2. There is no statistically significant impact ($\alpha \leq 0.05$) of empowering employees and increasing their participation in decision-making on crisis management in Iraqi public hospitals.
3. There is no statistically significant impact ($\alpha \leq 0.05$) of continuous improvement processes on the ability of Iraqi public hospitals to manage crises effectively.
4. There is no statistically significant impact ($\alpha \leq 0.05$) of focusing on patient and beneficiary needs on crisis management in Iraqi public hospitals.
5. There is no statistically significant impact ($\alpha \leq 0.05$) of using feedback from employees and patients on improving the crisis response in Iraqi public hospitals.

Previous Studies

Study by Al-Ma'ani (2020): The Effect of Quality Management on Crisis Management at Al-Mu'assis Abdullah University Hospital

This study aimed to explore the impact of quality management tools on crisis management. Using a sample of 337 participants, the study revealed a moderate level of crisis management practices. The results showed no statistically significant impact of quality management tools (skills, decisions) on crisis management. The study recommended improving internal procedures and conducting workshops to enhance employee skills and crisis management capabilities.

Study by Al-Mawad and Al-Sukkar (2021): The Impact of Strategic Preparedness on Crisis Management in Private Hospitals in Jordan

The aim of this study was to explore the impact of crisis management readiness strategies in private hospitals in Jordan from the employees' perspective. The researcher used a descriptive-analytical method and the sample included 414 employees from specialty hospitals in Jordan (Specialty Hospital, Al-Isra Hospital, and Al-Hayat Hospital). Data was collected using an electronic questionnaire via Google Drive. The results showed a significant positive impact ($\alpha \leq 0.05$) of crisis management readiness strategies on various dimensions: the ability to respond quickly, identifying the problem at the right time, methods for accessing the crisis tool, and preparedness and prevention measures. The study recommended conducting training courses for employees on crisis phases, restoring activity and balance after a crisis, and carrying out more research on readiness strategies, given the scarcity of existing studies in this field.

Study by Amer and Wazni (2020): The Impact of Applying Total Quality Management on Performance in Private Sector Hospitals in Jordan

The study aimed to identify the impact of implementing Total Quality Management (TQM) on its various dimensions: the commitment of senior management, empowering employees, focusing on customers, continuous improvement, and the operational and marketing performance in private hospitals in Jordan. The study sample consisted of 250 employees from private hospitals in Jordan. A simple random sample was selected, amounting to 152 respondents, of which 137 were valid for statistical analysis using SPSS. The results showed a statistically significant impact ($\alpha \leq 0.05$) of applying TQM dimensions on the organizational performance in Jordanian private hospitals. The findings indicated that the level of TQM and organizational performance was high. The study recommended the necessity of continuing to apply TQM in the private hospital sector and keeping up with technological advancements in this field to positively impact organizational performance in hospitals.

Study by Wassan, et al. (2022): Impact of Total Quality Management (TQM) Practices on Sustainability and Organizational Performance

The study aims to investigate the relationship between Total Quality Management (TQM) practices, sustainability, and organizational performance in the manufacturing industries. A questionnaire was used to collect data from employees in these industries, and data analysis was conducted using Confirmatory Factor Analysis (CFA). The results revealed that TQM practices and sustainability play a significant role in enhancing organizational performance. The study showed that there is a positive impact of TQM and sustainability on organizational performance, which contributes to achieving sustainable competitive advantages. Based on these results, a framework was proposed to explain the relationship between TQM, sustainability, and organizational performance, highlighting the importance of TQM as a key factor in the success of manufacturing industries.

Study by Fraihat, et al. (2023): The Impact of Total Quality Management (TQM) in the Performance of Information Technology Startups at King Hussein Business Park

The study aims to measure the impact of Total Quality Management (TQM) by focusing on processes, engaging employees, and continuous improvement on the performance of emerging information technology companies in Jordan, in terms of productivity, customer satisfaction, and loyalty. A quantitative descriptive method was used to collect data from 35 emerging IT companies in Jordan, through the distribution of 100 questionnaires to operations managers, quality managers, and marketing managers. The results showed that the level of TQM implementation in these companies had a statistically significant impact on the performance of the emerging companies. This underscores the importance of a comprehensive approach to quality

and continuous improvement in enhancing quality culture and contributing to organizational performance improvement.

Chapter 2: Theoretical Framework

Total Quality Management (TQM)

There are numerous concepts in the literature aimed at defining the concept of Total Quality Management (TQM). However, TQM does not have a single, universally accepted definition, leading researchers to propose various definitions. Most of these concepts revolve around the idea of a comprehensive strategic vision for quality, which relies on the organization's policy and considers quality the responsibility of all employees. This vision involves the senior management team, as well as an integrated methodology that aligns with modern standards and market requirements to achieve optimal quality, i.e., a philosophy or approach for continuous improvement (Najm et al., 2017).

Ana (2017) clarified that TQM is an administrative strategy that aims to integrate quality into all organizational processes, involving everyone in the organization in the process of continuous improvement. This strategy aims to achieve customer satisfaction and can be applied successfully in production, services, training, and other areas.

Najm et al. (2017) see TQM as a comprehensive strategic vision for quality, relying on the organization's policy and considering quality the responsibility of all employees. It also involves an integrated methodology, aligned with modern standards and market requirements, to achieve optimal quality. TQM represents a philosophy for continuous improvement, with an aim to involve everyone, both internally and externally, to meet their needs, continuously improve performance, and achieve satisfaction (Boikanyo & Heyns, 2019).

The Importance of Total Quality Management (TQM)

Total Quality Management (TQM) is one of the essential tools that contribute to improving institutional performance and increasing efficiency and quality across various sectors, including the healthcare sector. This concept holds significant importance in several aspects, as outlined by (Amr and Al-Waeli, 2019):

1. Applying TQM principles improves the quality of services provided by focusing on meeting customer needs and expectations, whether patients or healthcare service recipients. This improvement leads to increased customer satisfaction and trust in the institution.
2. TQM contributes to improving the operational efficiency of institutions by minimizing waste and maximizing resource utilization, including time, materials, and human resources. Continuous improvement processes enable institutions to operate more effectively and efficiently.
3. TQM empowers employees by providing them with the necessary skills and responsibilities to make decisions and improve processes. This empowerment fosters a spirit of teamwork and increases employee loyalty to the institution, which contributes to increased productivity.
4. TQM relies on the principle of continuous improvement, which requires ongoing research and the adoption of new methods to enhance operations and services. This principle helps institutions adapt quickly to changes and overcome challenges through innovation and development.
5. By focusing on customer needs and consistently meeting them, TQM helps in building strong and sustainable relationships with customers. This focus leads to increased customer loyalty and enhances the institution's reputation in the market.

6. Using feedback from employees and customers helps institutions identify strengths and weaknesses in their operations. This feedback is essential for conducting accurate and precise evaluations that inform strategic improvements.
7. Implementing TQM prepares institutions to respond to crises and emergencies effectively. By improving processes and training employees, institutions can handle crises better and minimize their negative impacts.

Dimensions of total quality management: (TQM)

According to Al-Maaytah and Abu Zaid (2021), the dimensions of total quality management consist of:

- **Directed leadership:** It helps in directing and setting strategic goals for quality, and motivating employees to achieve these goals is considered essential. Effective leadership ensures adherence to the principles of total quality and provides the necessary resources and support to achieve continuous improvement. Leadership in total quality requires a long-term commitment from senior management to guide the organization towards achieving quality goals.
- **Empowering employees :**Enhancing the role of employees by involving them in decision-making and improving operations increases their responsibility and interaction. Empowering employees enhances creativity and improves the overall performance of the organization, as empowered workers are more capable to identify and solve problems, which contributes to continuous quality improvement.
- **Continuous improvement** of processes and services is one of the fundamental pillars of total quality management. This dimension requires adopting methodologies such as the PDCA cycle of Planning Execution Check Action to ensure sustainable improvement in all aspects of the business .Continuous improvement enhances the competitiveness of the organization and increases customer satisfaction.
- **Customer Focus:** Placing customer needs and expectations at the heart of decision-making processes is a key focus of total quality management. This includes collecting customer feedback and working to meet and exceed it, leading to increased customer satisfaction and fulfillment.Their continued loyalty, customer focus contribute to building a long-term relationship with customers and improving the organization's reputation.
- **Feedback** Using feedback from employees and customers to improve processes and services is an integral part of total quality management. Feedback helps identify strengths and weaknesses and provides the information necessary to make continuous improvements and ensure quality performance (Ishikawa, 1985). This dimension encourages open communication and enhances transparency within the organization. .

Second: The concept of crisis management

The concept of crisis management is broad and includes general planning and response to disasters and emergency situations. Crisis management is considered a system that provides the organization with an organized response to crisis situations, as this response gives the organization has the ability to continue its daily work at the same time as the crisis is successfully managed (Al-Qabati (2018)).

Crisis management is a process based on training and planning to anticipate crises and know their internal and external causes.This is done by using the capabilities and means available in the organization to prevent or confront them, which achieves stability, while benefiting from and acquiring new experiences that contribute to developing and improving methods of dealing with crises in the future (Al-Hassan and Al-Najjar, 2022).

Ariffin et al (2018) defined it as the effective management of crises using processes of anticipation, anticipation, preparation, and training, and requires continuous communication with relevant parties, such as financial contributors, agencies, financial teams, etc. A party that has an interest in the organization and may be affected by the occurrence of a crisis there.

Al-Thani, et al (2020) indicated that crisis management is a strategic process that requires the organization to make decisions in conditions of uncertainty, and at the same time respond effectively to crisis events, prevent their development, and mitigate their negative consequences, which allows the organization. Al-Ashiwi (2020) believes that Crisis management is a special professional process It is represented by a group that manages risks and restores normal conditions.

Crisis management objectives

Baghraib and Al-Nakhai (2021) believe that the objectives of crisis management are summarized as follows:

- Defining the role of all relevant agencies to manage and organize the crisis and establishing an operations command center.
- Providing the material capabilities and scientific capabilities to prepare for and confront the crisis.
- Optimal exploitation of available capabilities and resources to reduce the effects of the crisis.
- Protecting property and preserving assets at the scene of a crisis and reducing suffering during its occurrence.
- Seeking to mitigate the negative and harmful effects resulting from crises on individuals and groups.

Crisis management methods

1. Organizations adopt a number of methods in managing crises to prevent their recurrence. The most prominent of these methods is (Ghawas et al.,2019).
2. The method of changing course: This method uses confronting strong and violent crises that are difficult to confront, which calls for The management in the organization must change the course of this crisis and shift its course in a direction away from the crisis itself by adhering to caution Speed and complete confidentiality when dealing with the situation in order to reduce risks.
3. Crisis cell method includes a group of specialized individuals to follow up on the organization's problems, where each individual is a member of the crisis cell cooperates to confront it, and each member has specific duties, and individuals are a number of workers who possess High skills and experience in solving problems through a team (a cooperative cell and a wise leadership that works to collect information and treat it.
4. The crisis fragmentation method is considered one of the most powerful methods of dealing with strong and severe crises. This method depends on great, even complete, knowledge of the forces causing the crisis, identifying their conflicting interests, potential benefits, and existing alliances, then influencing the unity of those alliances and transforming the basic crisis into crises of a specific size that make them lose their pressure and therefore able to deal with it."

Chapter Three: Research Methodology

Study design

The descriptive and analytical approach was adopted in this study because they are consistent with the theoretical objectives and hypotheses, and the descriptive approach was used to introduce the

concepts and theories related to the research topic, in the theoretical parts of the study. In the applied part of the study, the analytical method was used to analyze and evaluate the data collected through the questionnaire that was distributed to Employees of the studied institution.

Study population and sample

The study population consists of all employees at all administrative levels, senior management and middle management in government hospitals in Iraq. Due to the difficulty of enumeration, a simple random sample of 125 hospital workers was taken and questionnaires were distributed.

Data sources

First: Secondary sources In writing the theoretical framework, the researcher relied on secondary data, which was represented in relevant Arabic and foreign books and references, periodicals, articles, reports, research, and previous studies that dealt with the subject of the study.

Second: Primary sources:

The primary data is represented by the data obtained using the questionnaire, which the researcher developed to cover the variables of the study, and using evaluative statements to determine the answers of the study sample based on previous studies.

The first dimension: the independent variable, principles of total quality management, and it was divided into five dimensions:

The second dimension: The dependent variable (crisis management):

The researcher also used a five-point Likert scale (5), where the answer was given (strongly agree) five marks, the answer (Agree) is four marks, the answer (Neutral) is three marks, the answer Disagree is two marks, and the answer (Not agree at all) I gave a score of one, and the higher the score, the greater the level of satisfaction of the respondents with the items.

Internal consistency analysis:

Table (2) below shows the results of the Cronbach's alpha index for each dimension of the survey:

Table (2): Cronbach's Alpha Coefficient Results for Each Dimension of the Questionnaire

Dimension	Cronbach's Alpha
Total Quality Management	0.987
Employee Empowerment	0.927
Continuous Improvement	0.929
Focus on Client	0.949
Feedback	0.964

We observe that all axes in Table (2) have a Cronbach's Alpha value greater than (0.700), indicating a high level of internal consistency. This means that the questionnaire is reliable and provides consistent results. Therefore, all questions on each dimension address the same concept or issue and do not diverge.

Validity Analysis

The researcher calculated construct validity by computing the Pearson correlation coefficient between the statement and the overall score for the dimension to which it belongs. The results are shown in the following tables:

Table (3): Pearson Correlation Coefficient Between Statements Related to Total Quality Management and Overall Dimension Score

No.	Statement	Total Quality Management Dimension	Correlation with Overall Dimension Score
1	Senior management at hospitals places great importance on quality issues and considers it one of its top priorities.	0.712	
2	Senior management ensures that hospitals meet the requirements of total quality management.	0.321	
3	Senior management opens different departments in hospitals to address the necessary quality issues.	0.846	
4	The senior management at hospitals emphasizes spreading quality culture across all departments and units.	0.808	

Source: Statistical Analysis of Data

Table (4): Pearson Correlation Coefficient Between Statements Related to Empowering Employees and Overall Dimension Score

No.	Statement	Empowering Employees Dimension	Correlation with Overall Dimension Score
1	Hospitals conduct employee training on problem-solving skills and implementing total quality management strategies.	0.834	
2	Hospitals focus on developing human resources and equipping them to apply total quality management principles.	0.884	
3	All administrative staff participate in preparing strategic plans for implementing total quality management principles.	0.862	
4	Hospitals emphasize the human resources with the knowledge and skills needed for creativity and innovation.	0.891	

Source: Statistical Analysis of Data

Table (5): Pearson Correlation Coefficient Between Statements Related to Continuous Improvement and Overall Dimension Score

No.	Statement	Continuous Improvement Dimension	Correlation with Overall Dimension Score
1	Hospitals ensure the principle of continuous improvement is included in all policies and procedures.	0.889	
2	Hospitals place great importance on research and development for continuous improvement.	0.841	
3	Hospitals are quick to respond to changes and adapt to technological and technical advancements.	0.771	

4	Hospitals consider continuous improvement in work as part of quality requirements.	0.826	
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Source: Statistical Analysis of Data

Table (6): Pearson Correlation Coefficient Between Statements Related to Customer Focus and Overall Dimension Score

No.	Statement	Customer Focus Dimension	Correlation with Overall Dimension Score
1	Hospitals conduct regular surveys to assess patient satisfaction continuously.	0.813	
2	Senior management focuses on patient satisfaction and successfully addresses their concerns.	0.900	
3	Hospitals strive to improve and develop the quality of services provided to patients.	0.922	
4	There is a strong relationship between hospitals and patients.	0.837	

Source: Statistical Analysis of Data

Table (7): Pearson Correlation Coefficient Between Statements Related to Feedback and Overall Dimension Score

No.	Statement	Feedback Dimension	Correlation with Overall Dimension Score
1	Feedback provides information on processes that contribute to the effectiveness of total quality management.	0.820	
2	Internal audits are conducted periodically on all activities and operations in hospitals.	0.820	
3	Hospitals rely on statistical methods to monitor and measure quality levels.	0.906	
4	Hospitals continuously strive to evaluate the outcomes of total quality management programs.	0.888	

It is clear from tables (3) to (7) that there is a positive and statistically significant correlation between the phrases of the sub-dimensions for measuring total quality management (TQM) and the overall grade of the dimension, except for the second and sixth questions of the first dimension (leadership oriented towards total quality). This indicates high validity coefficients for the measurement phrases and the constructed sub-dimensions, with correlation coefficients being significant at the levels of 0.01 and 0.05.

Chapter Four: Data Analysis

Analysis of Demographic Variables of the Study Sample

Distribution of the Study Sample According to Gender

Table (8): Description of the Study Sample According to Gender

Gender	Number	Percentage
Male	94	75.2%
Female	31	24.8%
Total	125	100%

The table above shows that the number of male employees is significantly higher than the number of female employees, with males constituting 75.2% and females constituting 24.8%. This reflects the gender composition of the workforce in government hospitals in Iraq according to the gender variable.

Distribution of the Study Sample According to Age

Table (9): Description of the Study Sample According to Age

Age	Number	Percentage
Less than 30 years	24	19.2%
30 to less than 40 years	66	52.8%
40 to less than 50 years	21	16.8%
50 years and older	14	11.2%
Total	125	100%

The table above shows a clear variation among the study population according to the age variable. The majority of employees fall within the age group of 30 to less than 40 years (52.8%), followed by those aged 40 to less than 50 years (19.2%). The smallest percentage of employees is in the age group of 50 years and older (11.2%). This reflects the typical age distribution of employees in government hospitals in Bahrain, where the majority are in the middle age categories.

Distribution of the Study Population According to the Educational Qualification Variable:

Table (10): Description of the Study Sample According to Academic Qualification

Academic Qualification	Number	Percentage
Diploma	5	4%
Bachelor's Degree	15	12%
Higher Degrees	105	84%
Total	125	100%

The table above shows that the majority of the employees hold higher degrees, accounting for 84% of the sample. In contrast, the smallest group comprises those with diplomas, representing 4% of the sample. This reflects the nature of the hospital work environment, which largely depends on employees with higher academic qualifications.

Distribution of the Study Sample According to Job Position

Table (11): Description of the Study Sample According to Job Position

Job Position	Number	Percentage
Academic	105	84%
Administrative	20	16%
Total	125	100%

The table above indicates that the majority of employees in the sample are in academic positions, making up 84% of the sample. In contrast, administrative positions constitute 16% of the sample, reflecting the hospital's heavy reliance on academic staff.

Distribution of the Study Sample According to Years of Experience

Table (12): Description of the Study Sample According to Years of Experience

Years of Experience	Number	Percentage
Less than 5 years	34	27.2%
5 to less than 10 years	65	52%

10 to less than 15 years	21	16.8%
15 years and more	5	4%
Total	125	100%

The table above shows a general variation among the study population according to the number of years of experience. The largest percentage of employees have less than 10 years of experience (52%), followed by those with 5 years or less (27.2%). The percentage of employees with 10 to less than 15 years of experience is 16.8%, while those with more than 15 years of experience constitute only 4%. This reflects the hospitals' policies of retaining experienced employees for many years, as well as their strategy of attracting experienced professionals. It also reflects the hospitals' strategy to attract experienced professionals, ensuring that their workforce has considerable tenure overall.

3-4 Descriptive Statistics for the Dimensions of the Study Variables:

This section deals with the descriptive statistics of the questionnaire items using statistical methods, including means and standard deviations, to determine the most influential items from the perspective of the study population. The following is the descriptive statistics for the dimensions of the study variables:

Descriptive Statistics for the Dimensions of Total Quality Management (Independent Variable)

Table (13): Descriptive Statistics for the Dimensions of Total Quality Management Following Leadership by Total Quality

No.	Statement	Arithmetic Mean	Standard Deviation	Rank
1.	Senior management in hospitals attaches great importance to the issue of quality and considers it one of its top priorities.	4.643	0.514	1
2.	Senior management provides the requirements for implementing total quality management.	4.557	0.593	2
3.	Senior management grants different hospital departments the flexibility needed to solve the problems they face.	4.522	0.595	3
4.	Senior management in hospitals is keen on spreading the culture of quality in all departments and administrative units.	4.504	0.514	4
	Overall Mean	4.475	0.587	

The table above shows that the highest level in the dimension of leadership directed towards comprehensive quality was for statement number (1), which states, "Senior hospital management attaches great importance to the issue of quality and considers it one of its top priorities," with a mean score of (4.64). This reflects the high level of attention that senior management in hospitals places on quality management.

In contrast, statement number (8), which states, "Senior management in hospitals is committed to a clear quality plan," received the lowest mean score of (4.33). This indicates a certain degree of doubt among respondents regarding the clarity of the quality plan within hospitals.

The overall mean for the dimension of leadership directed towards comprehensive quality was (4.475), indicating the significant attention hospital leadership places on guiding the comprehensive quality system in hospitals.

Descriptive Statistics for Employee Empowerment Dimension

Table (14): Descriptive Statistics for Employee Empowerment Dimension

No.	Statement	Arithmetic Mean	Standard Deviation	Rank
1.	Hospitals provide training for employees on problem-solving skills and abilities to implement total quality management strategies.	4.130	0.740	1
2.	Hospitals focus on developing human resources, empowering them, and qualifying them to implement total quality management principles.	4.070	0.852	2
3.	Hospitals focus on human resources with knowledge and exceptional skills to foster creativity and innovation.	3.965	0.932	3
4.	Hospital staff at all administrative levels actively participate in preparing strategies to implement total quality management principles.	3.878	0.886	4
	Overall Mean	3.878	0.672	

The table above shows that the highest level in the employee empowerment dimension was for statement number (1), which states "Hospitals train employees on problem-solving skills and the application of total quality management strategies," with a mean score of (4.13). This indicates that senior management in hospitals focuses on training related to problem-solving and skills that involve the application of total quality management strategies.

The statement number (5), which states "There is a system of incentives and rewards that encourage employees to improve the quality of performance," received the lowest mean score of (3.47). This indicates that respondents doubt the existence of an incentives and rewards system that could help encourage improvement in performance quality.

The overall mean for the employee empowerment dimension was (3.878), indicating the necessity for hospitals to emphasize employee empowerment as an effective principle of total quality management in hospitals.

Descriptive Statistics for Continuous Improvement Dimension

Table (15): Descriptive Statistics for Continuous Improvement Dimension

No.	Statement	Arithmetic Mean	Standard Deviation	Rank
1.	Hospitals strive to include the principle of continuous improvement in all their policies and procedures.	4.330	0.615	3
2.	Hospitals place great importance on research and development for the sake of continuous improvement.	4.287	0.778	4
3.	Hospitals respond quickly to changes and adapt to technological and technical innovations.	4.443	0.782	1
4.	Hospitals consider continuous	4.374	0.728	2

	improvement in their work as part of quality requirements.			
	Overall Mean	4.232	0.598	

The table above shows that the highest level in the Continuous Improvement dimension was for statement number (8), which states, "Hospitals quickly respond to changes and adapt to technological and technical advancements," with a calculated mean of (4.44). This indicates that the senior management in hospitals pays great attention to keeping up with technological and technical changes.

Meanwhile, statement number (3), which states, "Encouraging creativity and developing employees' skills through continuous improvement methods in hospitals," had the lowest mean, reaching (4.05). This suggests that hospitals need to emphasize more on developing the skills of their employees through continuous improvement methods.

The overall mean in the Continuous Improvement dimension was (4.323), confirming the hospitals' interest in continuous improvement, which has a significant impact on the principles of Total Quality Management in hospitals.

Descriptive Statistics for Customer Focus Dimension:

Table (16): Descriptive Statistics for Statements after Customer Focus Dimension

No.	Statement	Mean	Standard Deviation	Rank
1	Hospitals regularly conduct surveys to gauge the satisfaction levels of beneficiaries continuously.	4.400	0.695	2
2	Senior management focuses on beneficiaries' satisfaction and succeeds in understanding their expectations.	4.383	0.680	3
3	Hospitals strive to improve and develop the quality of services provided to beneficiaries.	4.383	0.667	4
4	There is a good relationship between hospitals and beneficiaries.	4.426	0.673	1
Overall Mean		4.367		

The table above shows that the highest level in the Customer Focus dimension was for statement number (8), which states, "There is a good relationship between hospitals and patients," with a calculated mean of (4.43). This reflects the existence of a good relationship between hospitals and patients.

Meanwhile, statement number (2), which states, "Hospitals consider patients' opinions when developing new services," had the lowest mean, reaching (4.27). This indicates that hospitals need to emphasize the importance of considering patients' opinions when developing any new services, as these patients are the ones who will benefit from these services.

The overall mean in the Customer Focus dimension was (4.367), confirming the hospitals' interest in the Customer Focus dimension, which has a significant impact on the principles of Total Quality Management in hospitals.

Descriptive Statistics for Post-Feedback Dimension:**Table (17): Descriptive Statistics for post Feedback Dimension**

No.	Statement	Arithmetic Mean	Standard Deviation	Rank
1.	Review feedback provides information about the progress of operations that contributes to the effectiveness of comprehensive quality management in hospitals.	4.304	0.811	4
2.	Internal audits are conducted periodically on all activities and operations in hospitals.	4.322	0.683	3
3.	Hospitals rely on statistical methods to monitor and measure quality levels.	4.400	0.672	2
4.	Hospitals always strive to evaluate the results of comprehensive quality programs.	4.417	0.753	1
	Overall Mean	4.304	0.661	

The table above shows that the highest level in the Post-Feedback dimension was for statement number (8), which states, "Hospitals always seek to evaluate the results of comprehensive quality programs," with a calculated mean of (4.42). This highlights the hospitals' interest in assessing the results of comprehensive quality programs.

Meanwhile, statement number (1), which states, "Communication and information exchange between departments and hospital management is easy and smooth," had the lowest mean, reaching (4.19). This indicates the patients' dissatisfaction with the ease and smoothness of communication and information exchange between departments and hospital management.

The general average in the Post-Feedback dimension was (4.304), confirming the interest of hospitals in the Post-Feedback dimension, which has a clear impact on the principles of Total Quality Management in hospitals.

Descriptive Statistics for Crisis Management Dimension (Dependent Variable)**Table (18): Descriptive Statistics for Crisis Management Dimension**

No.	Statement	Arithmetic Mean	Standard Deviation	Rank
1.	Provides specific information about the work environment (internal and external) for crisis management beneficiaries.	4.296	0.710	8
2.	Forming various and multiple teams to solve specific crises.	4.287	0.766	10
3.	Employees have the readiness to face specific crises.	4.296	0.697	9
4.	Hospitals have previously experienced crises and managed them effectively.	4.417	0.722	2
5.	Preparedness of hospitals to face crises helped them to emerge with minimal losses.	4.409	0.631	3
6.	Hospitals work to find quick solutions to face crises.	4.470	0.637	1
7.	Hospitals provide the necessary logistical analyses for crisis containment.	4.322	0.640	5
8.	Hospitals review procedures related to crisis handling.	4.304	0.687	7

9.	Hospitals take the necessary measures to practice their social responsibilities without delay after a crisis.	4.348	0.647	4
10.	Hospitals provide alternative plans to resume activity after a crisis occurs.	4.313	0.651	6
	Total average	4.263	0.599	

The table above indicates that the highest level in the Crisis Management dimension was for statement number (15), which states, "Hospitals work to find quick solutions to face crises," with a calculated mean of (4.47). This emphasizes the interest of hospital management in addressing crises by finding solutions quickly and not leaving them unresolved.

Meanwhile, statement number (24), which states, "The senior management of hospitals works to create a state of reassurance among employees after overcoming the crisis stage," had the lowest mean, reaching (4.009). This points to a lack of confidence among employees regarding the administration's efforts to instill reassurance after the crisis stage has been overcome.

The general average in the Crisis Management dimension was (4.263), confirming the interest of hospitals in the Crisis Management aspect, which has a clear impact on the principles of Total Quality Management in hospitals.

Multivariate Analysis:

Table (19) shows the multivariate analysis of the study variables (the relationship and level of correlation among all variables covered in the study).

Table (19): Multiple Linear Regression Analysis of Study Variables

Continuous Improvement	Customer Focus	Empowering Employees	Leadership in Total Quality	Time Management
Time Management	1.000			
Leadership in Total Quality	0.765	1.000		
Empowering Employees	0.701	0.631	1.000	
Continuous Improvement	0.884	0.797	0.828	1.000
Customer Focus	0.118	0.180	0.005	0.111
Feedback Nutrition	0.864	0.773	0.683	0.869
1.000				

The table above shows the strength and nature of the relationship between the variables and confirms the absence of the issue of severe multicollinearity in the data. The Pearson correlation coefficient between all study variables was calculated, indicating that the data does not suffer from the problem of severe multicollinearity among the study variables.

Chapter Five: Conclusions

Based on the findings reached in this study, the researcher can draw the following conclusions:

1. The study results showed the significant statistical impact of the comprehensive quality management leadership dimension on crisis management, in addition to a strong positive relationship, confirming that the leadership of hospitals manages crises effectively by relying

on the culture of comprehensive quality in all departments and units. This came as a result of the importance placed on providing comprehensive quality management requirements to facilitate their implementation and adoption as a priority, which contributes to service quality.

2. The study results indicated a positive relationship between hospital policies and staff empowerment. This highlights the significant attention hospitals place on training their employees, developing them, and involving them in decision-making processes. This suggests that hospital leadership in crisis management operates smoothly with the available systems to empower employees with necessary knowledge and skills for creativity, and this is evidenced by the positive effect on crisis management.
3. Results indicated a significant statistical relationship between continuous improvement and crisis management, as hospitals follow the latest improvement practices, encourage creativity, and emphasize research and development to keep pace with technological and technical developments.
4. The study results revealed a significant relationship between the focus on governmental hospital work and crisis management, resulting from the importance of studying beneficiary needs and desires, monitoring their complaints, and responding to them effectively. This highlights the importance of focusing on work methods and developing strong relationships with beneficiaries to effectively manage crises.
5. The study found a significant statistical relationship in the dimension of feedback, indicating that governmental hospitals are keen to develop internal communication channels to ensure smooth information flow and exchange between departments and hospital units. This supports the significance of continuous feedback for identifying gaps, improving performance, and enhancing the effectiveness of comprehensive quality management.
6. The study provided another crucial finding that governmental hospitals need to urgently outline a comprehensive quality management plan that encompasses all their operations, ensuring effective crisis management.
7. Through the responses of employees in government hospitals, the study results indicated that employees desire a system of rewards and incentives that is more effective in helping improve performance quality.
8. The study results showed no significant differences in demographic variables (gender, age, educational qualification, job position, and years of experience) on the dimensions of the comprehensive quality management principles adopted by the government hospitals with their various specializations. This reflects that all study groups perceive the implementation of comprehensive quality management principles in crisis management similarly, with no notable differences.

Recommendations:

Based on the research objectives and findings, the following recommendations can be made:

1. Continuation of the emphasis on comprehensive quality management in hospitals by providing the necessary requirements to facilitate its implementation and adoption, focusing primarily on enhancing the quality of services. This should include ongoing review and consideration of crisis management tools in terms of readiness and prevention to ensure preparedness and align them with the comprehensive quality management requirements in crisis management.
2. Strengthening the role of government hospitals in empowering their staff through training, continuous development, and engaging them in decision-making processes. This should involve supporting human resources with the necessary knowledge and skills to foster creativity and influence the ability to effectively manage crises. It is crucial to enhance the

support tools for crisis management adopted by hospitals and ensure a systematic approach to crisis management that meets the needs of employees efficiently.

3. Continuation of adopting the latest improvement practices in government hospitals, promoting and encouraging creativity, and supporting research and development to keep pace with technological and technical advancements.
4. Expanding the scope of government hospitals to study the needs and requirements of beneficiaries, including their opinions on the services provided, and monitoring their expectations and satisfaction levels, in addition to training employees on effectively understanding and anticipating their needs.
5. Ensuring the development of communication channels and information exchange between departments within government hospitals through easy and smooth means. Additionally, addressing the enhancement of identifying gaps in workflow to improve the effectiveness of comprehensive quality management in hospitals, and continuously fostering and developing these aspects.
6. It is imperative for government hospitals to continuously promote the system of rewards and incentives to ensure employee loyalty and motivation, contributing significantly to improved performance quality.

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