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THE IMPACT OF TOTAL QUALITY STANDARDS ON THE LEVEL OF PERFORMANCE OF HEALTH FACILITIES. "A FIELD STUDY ON PRIVATE HOSPITALS IN THE CAPITAL CITY"

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Abstract

The study aimed to determine the impact of total quality standards on the level of performance of health facilities in private hospitals in Capital city in Yemen. To achieve the objectives of the study, the quantitative approach was used in its descriptive and analytical style and the questionnaire was distributed to a sample consisting of (400) individuals working in the administrative, medical and assistance levels. In the private hospitals under study. The study concluded that the level of application of total quality standards was to a large degree, except for the dimension of focusing on employees, which was somewhat significant. The level of performance of health facilities was to a large degree. There is a significant impact of total quality standards on the level of performance of health facilities, and the greater the impact of total quality standards, the greater the level of performance of health facilities. The study recommended activating the total quality standards methodology to increase the level of improvement in the performance of health facilities within the (PATH TOOL) model to improve health conditions and health services provided to patients in a way that contributes to improving the general health of society.

Keywords: Total Quality Dimensions, Performance Dimensions, Health Services, Hospitals.

1. INTRODUCTION

The desire to implement management programs for total quality in the field of health care is a global goal whose scope of application is constantly expanding as a first rank among the basic health care priorities globally. The direct impact of the services provided by health care on the lives and health of citizens. Quality is the focus of success in a world that depends on competition and is witnessing changes. Multiple in all areas of life [11].

The interest in quality in the health sector is due to the efforts of researchers in their attempt to raise the level of health services because they are linked to the health and safety of human life and the fight against and control of diseases, because of the great results achieved by quality methods in the industrial sector that led to the adoption of these methods in the field of health services after modifying them in accordance with the nature and characteristics of the health service. Governments are called upon to embody the right to health services for every member of society and to provide for them, whether these services are preventive, curative, or surgical, regardless of their financial capabilities to pay for them, by providing the necessary health

The Seybold Report
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services of the quality that obtains the satisfaction of the beneficiaries for the purpose of achieving the public interest and raising the standard. Health care for all segments of society [9].

In order to contribute to adding a new method and thought to the management and development of organizations, the most important of which is total quality management, much research has attempted to crystallize modern administrative trends that are based on a set of administrative principles to make managers manage their organizations better through a program to create quality in three main components, which are: Quality Physical technology, human technology quality, and environmental quality [14].

The performance of any organization is of fundamental importance through the optimal exploitation of its human forces and resources. It is not just a tool to control and impose authority on employees, but rather a tool for precise and objective diagnosis of the performance of all employees in order to help senior management make the appropriate decision and provide the necessary information to human resources management to enable it to manage those matters. Resources efficiently and effectively by improving, organizing, and exploiting available resources so that the organization becomes able to develop and deal well with all the variables that arise during the completion of its work [10].

Health facilities in Yemen face major challenges resulting from economic conditions, more than other health facilities in various countries of the world, which are witnessing major shifts in the performance and quality of the health services they provide. Health facilities are required to adopt modern administrative approaches to improve the quality of their services and raise them to the required level because they It is one of the organizations most in need of quality in order to provide services to the most precious thing that societies possess, which is the human being, who must do everything possible to preserve his life and its prosperity.

2. STATEMENT OF THE PROBLEM

In an explanation of some of the deterioration witnessed in the performance of health facilities in Yemen and the health services they provide, some official local reports related to the health sector in Yemen indicated that (50%) of health facilities and (60%) of health centers were out of service, and the rest are not fully performing their services.

(97%) of medical equipment and devices in hospitals are at risk of stopping due to the end of their useful life, (93%) of medical devices are out of service, (95%) of foreign medical personnel with vital specialties have left, and (320,000) patients are unable to receive treatment abroad [25].

Expected health needs in 2021 have increased by (11.9%) compared to 2020 levels, as the number of people in need of health services was (17.9) million people, compared to (20.1) million people in 2021 who need health assistance, including (11.6) million people yesterday. There is a need for it, as at least one child dies every (10) minutes due to preventable diseases [29].

The Seybold Report
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Total quality management has become seen as a great engine for change for the better and a basic measure of differentiation between organizations. It has been adopted in many organizations due to its superior strategic importance, which has increased its effectiveness and ability to survive in the competitive market (Bakhta, 2018), and given the importance of total quality in In the health sector, a number of research studies have studied total quality in the health sector, such as the study of (Sanaa, Maysaa, 2021), (Najm Al-Din, 2020), (Asmaa, Zainab, 2020), (Rayan, 2019), (Bashir, 2017), (Jamila, 2016), (Maysaa, 2016) and others.

From above the research problem becomes clear in that there is a gap between what should be and what is, such as the health situation, evaluation and classification of health facilities on the one hand, and the importance of the study variables and their impact on the performance of health facilities and the services they provide on the other hand. Therefore, the study aimed to study the reality and impact of total quality standards on the level of performance of health facilities in the private health facilities in the capital city in Yemen, which are rated (A) according to the Ministry of Public Health and Population.

3. QUESTIONS OF THE STUDY

The problem of the study can be formulated in the following main question: What is the impact of total quality standards on the level of performance of health facilities in the private hospitals under study in the Capital City?

The following sub-questions branch out from the main question of the study problem:

1) What is the level of application of total quality standards and their dimensions in private hospitals?

2) What is the level of performance of health facilities in private hospitals?

4. OBJECTIVES OF THE STUDY

Through this study, according to its variables and the main question, the researcher aims to achieve the following objectives: Studying the level of application of total quality standards in the private hospitals under study, Evaluating the level of performance of health facilities in the private hospitals under study, Analyzing the impact of total quality standards in their dimensions on the level of performance of health facilities in its dimensions, Contributing with possible proposals that help specialists make appropriate decisions to improve and develop the level of performance of health facilities, the quality of health services they provide in the private hospitals under study, and the possibility of applying them in other hospitals.

5. HYPOTHESES OF THE RESEARCH

The main hypothesis: “There is no statistically significant impact of total quality standards and their dimensions on the level of performance of health facilities in the private hospitals under study".

The Seybold Report
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6. SIGNIFICANCE OF THE PAPER

The importance of the study lies in its study of total quality standards and the performance of health facilities, which represent modern scientific foundations that are essential for the existence and continuity of private health facilities to provide quality health services to improve patients' health and preserve their lives. Therefore, they deserve attention and study from new aspects and in a scientific manner that contributes to their improvement and development. The current study adds cognitive enrichment to the Yemeni and Arab library and to those interested in topics related to the subject of the study in light of the scarcity of academic studies similar to the current study, according to the knowledge of the researcher and what he has seen from previous studies and according to the variables of the subject of the study, the qualitative addition that the study will provide, which the health sector in Yemen lacks to analyze The reality of total quality standards and performance of health facilities in private hospitals.

7. DEFINITIONS OF TERMS

7.1 Total Quality Standards:

It is "a set of characteristics, features and specifications that are required to be available in the organization's complete system in order to achieve total quality, which includes creating the appropriate environment and climate and determining the requirements that the customer or beneficiary of the organization service's needs, in addition to planning the quality of goals, the quality of management and plans, and the content of programs in the organization, and determining the quality of the staff." functional and the suitability of the facility to work requirements" [20].

Operational definition: It is a set of rules and guidelines that determine the method of implementing tasks and activities efficiently and in a way that ensures quality and effective outcomes that achieve the required goals.

7.2 Job Performance:

It is "the individual performing the various activities and tasks that make up his work, and we can distinguish between three partial dimensions, and the individual's performance can be measured against them. These dimensions are the importance of the effort expended, the quality of the effort, and the pattern of performance" [6].

Operational Definition: It is the activities carried out in the organization through the efforts of specialists at different administrative levels who use all of the organization's available resources to provide various services aimed at the benefit of the beneficiary and achieving the organization's goals.

7.3 Health facilities:

It is "that integrated part of the social and health organization that works to provide complete health care, both therapeutic and preventive, to citizens and delivers its external services to the family in their home environment. It is also a center for training health service workers" [27].

The Seybold Report
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Operational definition: It is a place that contains all the material, financial, technological, health and human capabilities. It is called a hospital, and a number of specialists and professionals provide various health services to the patients who benefit from them, which contributes to improving their health condition and their recovery.

8. LITERATURE REVIEW

8.1 Total Quality Standards:

The total quality standards applied in health facilities aim to achieve quality in the health services provided, which employ all the various resources in a sophisticated, organized and clear manner in all administrative and medical departments using human forces trained to carry out all the various tasks in an orderly and sequential manner, aiming in their entirety to provide the best performance that leads to service outcomes. High-quality health care that achieves the satisfaction of all its beneficiaries and reflects positively on their health. Quality is "continuous response to the customer's needs and requirements," while total quality is "achieving quality at the lowest cost," which is "achieving total quality of care and service provided through individuals' commitment to using their abilities." effectively" [15].

The quality of health services is defined as: "achieving the best result for each patient, avoiding complications that may be caused by the treating physician, then caring for the patient and his family in a way that achieves a balance between what the patient spent and the benefits he obtained, in addition to the necessity of effective documentation of the diagnostic and therapeutic process" [2]. Total quality in health facilities is defined as: "satisfaction of customers, doctors, health professionals, suppliers, partners and social stakeholders, which is achieved through the effective implementation of planning, programs, policies, strategies, human resources and the rest of the hospital's assets efficiently, effectively and continuously" [28].

8.1.1 The importance of Total Quality Standards in Hospitals:

1) Simplifying Procedures: Applying the total quality standards model helps simplify work procedures by shortening or improving them.
2) Improving Procedures: The total quality standards model aims to diligently seek and seize improvement opportunities.
3) Reducing the Repetition of Operations: Applying total quality standards helps determine the best ways to perform work and thus reduce repetition and its negative impact on the level of quality, efficiency, productivity and customer satisfaction [3].
4) Operating Efficiency: Operating efficiency is considered one of the most important benefits achieved by applying total quality standards, as a result of eliminating waste in the performance of operations and increasing the skill level of workers [30].
5) Reducing Differences and Reducing Errors in Medical Practices: One of the most important problems facing health facilities is the difference in the ways in which doctors perform their work and its repercussions on the level of quality and efficiency. Applying total quality

The Seybold Report
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standards contributes to eliminating differences in clinical practice and choosing the best ways to perform the work according to the evidence. And scientific facts [22].

8.1.2 Dimensions of Total Quality Standards:

1) Senior Management Support: The success of applying total quality standards depends on the extent of the organization's senior management's conviction of their benefits and necessity in order to achieve continuous improvement in quality and create a good competitive position for the hospital, and this conviction must be translated into the form of strong support and assistance, given that the total quality standards methodology The new approach and its implementation is a strategic decision that improves the future of the organization [23].
2) Customer Focus: Recently, interest in the customer has increased due to the increasing intensity of competition between hospitals, which has led to the need to focus on satisfying the customer's needs and desires to satisfy him, as organizations always seek to improve the level of their services to customers in order to retain them and ensure their continued dealings and loyalty to the hospital and its products and services and to gain new clients [16].
3) Employees Focus: To enable employees to successfully implement total quality standards, the organization must work on continuous training and qualification of its workers in order to provide them with the skills and knowledge necessary to achieve this purpose, and to enable them to contribute to improving the quality of the products and services provided, as well as reducing the defects that may appear in them [13].
4) Processes Focus: Processes in the quality management system provide activities that apply the philosophy and standards of total quality management in various aspects of the organization's main work, such as design, development, purchasing, production, operations, marketing, human and material resources, organizational structure and culture, communication systems, and other main and subsidiary activities of the organization, even the smallest activity in the organization, which It leads to achieving customer satisfaction and meeting their needs, desires and expectations [24].
5) Decision Making: The decisions of organizations that apply total quality standards are characterized by being based on correct facts and data and not just individual speculation or improvised personal opinions, especially since contemporary business organizations face many and accelerating challenges in science, technology, competition, and others [17].
6) Continuous Improvement: The methodology for applying total quality standards is based on introducing continuous improvements to all areas of work in the organization in order to permanently adapt to the changes that occur in the organization's environment, whether at the internal or external level, as continuous improvement is considered a basic requirement for the success of total quality management. Because it makes the organization in a state of continuous superiority and distinction over others [16].

The Seybold Report
ISSN 1533-9211
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8.2 Performance of health facilities:

Performance in organizations, regardless of their names and activities, is considered the basic foundation of administrative practices (inputs, processes, outputs) that include the human and material aspects of the organizations at their various administrative levels to achieve multiple service outcomes that translate the organizations' goals and directions. The performance of health facilities includes various activities at all administrative, medical, and assistance levels that focus In its entirety, it aims to provide the best health services to patients in a way that leads to their safety and the preservation of their lives, and performance is: "a reflection of how the organization/facility uses financial and human resources and exploits them efficiently and effectively in a way that makes it able to achieve its goals" [4].

Job performance is "commitment to the organization, to work, trends, loyalty to superiors, honesty, punctuality and work relationships, the ability to innovate and knowledge of work" [18].

Health facilities are defined as a hospital as "a group of specialists in medical and non-medical professions, physical inputs and materials, which is organized in a specific pattern with the aim of serving current and prospective patients, satisfying their needs, and continuing the health organization" [5].

8.2.1 The Importance of Job Performance:

1) It is the main component of production processes or service provision and the living part of them because it is linked to the human element that manages the process and transforms resources into manufactured materials of material value that are sold to the consumer and thus achieve profit. Therefore, stabilizing the cost of resources and activating the productivity of the human element achieves the organization's goals.
2) It helps and allows in achieving the organization's goals and determining the extent of the organization's ability to invest in latent capabilities and employ the ambitions, skills and knowledge of employees and the success of economic development plans in the country.
3) It's a measure of an individual's abilities to perform his work at the present time and other work in the future.
4) It contributes to determining the extent of the organization's ability to invest in latent capabilities and employ the ambitions, skills and knowledge of employees.
5) The incentive system is linked to individual performance as well as to employee job stability, and effective job performance leads to cost reduction and rationalization of expenses.
6) Outstanding job performance helps raise the level of quality in the inputs and outputs of the production process and creates a competitive advantage for the organization through innovation and creativity at work.
7) It contributes to determining the success of human resources management policies in the organization [12].

The Seybold Report
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8.2.2 Objectives of Health Facilities:

Providing the maximum possible medical and nursing services to the injured for their recovery, training and educating workers in the medical, nursing and allied health fields, and conducting vital research and studies in various aspects of health [26].

Providing health services to all residents of the area covered by the hospital, education, continuing scientific research and self-development for hospital workers [1].

8.3 Dimensions of Health Facility Performance:

It is a performance evaluation model for improving quality in hospitals and is called (PATH TOOL) and was developed by the World Health Organization Office for Europe to support hospitals in collecting data about their performance, evaluating and determining their performance, and initiating quality improvement activities through the following dimensions:

1) Clinical Effectiveness: Clinical effectiveness refers to the hospital's success in achieving clinical results in accordance with the current state of medical knowledge, using it appropriately, converting this knowledge into appropriate medical care, and achieving these results in proportion to the efforts made to provide the service.
2) Health Efficiency: This dimension relates to the optimal use of available resources to achieve maximum production.
3) Attention to Employees: It represents an appropriate degree of expertise of the medical staff working in the hospital with the medical care requirements required for patients, providing opportunities for continuing education, transferring experiences, and providing a positive atmosphere (a supportive environment) at work as much as possible according to the circumstances and capabilities available and in a way that achieves their satisfaction with their work.
4) Responsive Management: It represents the degree to which the hospital administration responds to the community's health needs and ensures continuity of coordination and cooperation in providing health care service to patients, regardless of the physical, cultural, social, demographic and economic characteristics of the community.
5) Safety of Service Providers: This relates to applying safety procedures, providing an appropriate form and structure for the hospital, and using appropriate processes in transferring health care to patients in a way that prevents or reduces harm or harm to service recipients as well as health care providers provided to them [19].

9. METHODOLOGY

9.1 Study Design:

To achieve the objectives of the study, the researcher used the quantitative method in its descriptive and analytical style.

The Seybold Report
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9.2 Study Population and Sample:

It included workers in private hospitals in the capital secretariat that were classified (A) according to the evaluation and classification of the Ministry of Public Health and Population for the year 2021. They numbered (7) hospitals and included (3539) workers, as show in following table (1):

Table 1: Private hospitals in Capital City classified (A).

Hospital	Date of Establishment	Number of Employees	Clinical Capacity
University of Science and Technology Hospital	2005	1129	182
Modern German Hospital	2003	375	70
Modern European Hospital	2017	400	90
Yemeni German Hospital	2000	315	60
Azal Modern Hospital	1996	800	130
Al.Ahly Modern Hospital	1995	170	60
AbdulQader Al-Mutawakkil Modern Hospital	1992	350	85
Total		**3539**	**677**

The probability (random) statistical sampling method was used to choose a relative stratified sample from the study population, where from the first layer of the study population, (3) hospitals were selected, which included the largest number of workers and clinical capacity, with a total of (2329) workers, representing (65.8%) of the total study population, and the second layer included the study sample that The questionnaire will be distributed, the size of which was determined using the Robert Mason equation, which is estimated at (330) individuals. In order to increase accuracy in collecting data the researcher added (21%) bringing the total sample to (400) individuals, as show in following table (2):

Table 2: Study Sample

Hospital	Number of employees	sample percentage	sample size
University of Science and Technology Hospital	1129	48.5%	193
Azal Model Hospital	800	34.3%	137
Modern European Hospital	400	17.2%	70
Total	**2329**	**100%**	**400**

9.3 Methods of Collecting Information:

1) Methods of Collecting Secondary Data: These include library and digital sources such as books, references, magazines, periodicals, reports, and other literature related to the subject of the study.

2) Methods of Collecting Primary Data: The primary data collection tool for the study was the questionnaire to collect and analyze data related to total quality standards and the performance of health facilities. It was prepared and then presented to a number of arbitrators to express their opinion, and it was modified according to their suggestions, and a pilot survey was conducted to test the validity of the content. By distributing (30) questionnaires to a group of the study sample, modifying them according to the survey

The Seybold Report
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results, and modifying the questionnaire in the final form, as it included (9) dimensions and (45) items.

9.4 Statistical methods used in the study:

After collecting the questionnaires and coding the results of the respondents' answers to them, the data was entered and processed by computer using (SPSS 27) and (AMOS 26) programs to achieve the objectives of the study, analyze the data, answer the study's questions, and test the validity of the hypotheses.

The field study data was analyzed using some statistical methods. The appropriateness is as follows: Cronbach's alpha test, tables of frequency distributions and percentages, arithmetic mean, standard deviation, confirmatory factor analysis (CFA), which included a set of indicators as follows: index (CMIN/df), goodness-of-fit index (GFI), modified goodness-of-fit index. (AGFI), Root Mean Square Error of Approximation Index (RMSEA), Normed Fit Index (NFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and Incremental Fit Index (IFI).

9.5 Procedures of Study Instrument Testing:

After completing the preparation and review of the questionnaire, conducting the pilot survey, and modifying it in its final form, the questionnaire was distributed to the study sample, and the questionnaires were collected and sorted, and the questionnaires were unpacked and processed by computer by using (SPSS 27) and (AMOS 26) programs, and the following tests were conducted:

9.5.1 Confirmatory Factor Analysis (CFA) of the study Instrument "questionnaire":

Confirmatory factor analysis is a form of factor analysis that is used to test whether the measures of a variable are consistent with the researcher's understanding of the nature of this variable before using structural equation modeling, as follows:

1) The independent variable "Total Quality Standards":

To measure the construct validity of the total quality standards variable scale, confirmatory factor analysis (CFA) was conducted using the (AMOS 26) program.

The results of the confirmatory factor analysis of the indicators of the quality of conformity to the dimensions of the total quality standards variable showed that the degree of its verification exceeded The minimum acceptable values, and to improve the quality of matching the model, all saturation values of the indicator values were reviewed and the items that had a saturation value less than (0.60) were deleted.

Thus, the two paragraphs (S1, L1) were deleted, and when reviewing the modification indicators (MI), some measurement errors were restricted, as show in following table (3):

The Seybold Report
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Table 3: Results of the model fit test for goodness of fit indicators before and after improving the fit to total quality standards

Measurement indicators	Acceptable conformity values	Excellent conformity values	Values of indicators resulting from data analysis before improvement	Indicators values resulting from data analysis after improvement
CMIN/ df	< 5	< 2	3.17	2.89
RMSEA	0.05 to 0.08	≤ 0.05	0.085	0.080
GFI	(0 – 1)	≥ 0.90	0.78	0.82
AGFI	(0 – 1)	≥ 0.80	0.74	0.78
CFI	(0 – 1)	≥ 0.90	0.90	0.92
NFI	(0 – 1)	≥ 0.90	0.86	0.89
IFI	(0 – 1)	≥ 0.90	0.90	0.92
TLI	(0 – 1)	≥ 0.90	0.89	0.91

2) The dependent variable "performance of health facilities":

To measure the construct validity of the measure of the health facility performance variable, confirmatory factor analysis (CFA) was conducted using the program (AMOS 26). The results of the confirmatory factor analysis of the indicators of the quality of conformity to the dimensions of the health facility performance variable showed that the degree its achievement exceeded the minimum acceptable values, except for the (CMIN/ df) indicator. To improve the quality of model matching, all saturation values of the indicator values were reviewed, and the paragraphs that had a saturation value less than (0.60) were deleted. Therefore, the paragraphs (G4, H4) were deleted, and when reviewing the indicators Adjustment (MI) some measurement errors are limited, as show in following table (4):

Table 4: Results of the model fit test for goodness of fit indicators before and after improving the fit to total quality standards

Measurement indicators	Acceptable conformity values	Excellent conformity values	Values of indicators resulting from data analysis before improvement	Indicators values resulting from data analysis after improvement
CMIN/ df	< 5	< 2	3.55	3.15
RMSEA	0.05 to 0.08	≤ 0.05	0.93	0.085
GFI	(0 – 1)	≥ 0.90	0.87	0.87
AGFI	(0 – 1)	≥ 0.80	0.82	0.82
CFI	(0 – 1)	≥ 0.90	0.90	0.94
NFI	(0 – 1)	≥ 0.90	0.87	0.91
IFI	(0 – 1)	≥ 0.90	0.90	0.94
TLI	(0 – 1)	≥ 0.90	0.88	0.92

After conducting confirmatory factor analysis, the study instrument "questionnaire" included the following: The first section: The total quality standards axis and contained (28) paragraphs distributed over six dimensions as follows: The first dimension "Senior management support" (5) paragraphs, The second dimension Focus on the customer (4) paragraphs, The third dimension "Focus on employees" (5) Paragraphs, the fourth dimension "Focus on Operations"

The Seybold Report
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(4) paragraphs, the fifth dimension "Decision Making" (5) paragraphs, the sixth dimension "Continuous Improvement" (5) paragraphs. The second section: Health facilities performance axis. It contained (13) paragraphs distributed over three dimensions as follows: The first dimension "Clinical effectiveness" (5) paragraphs, the second dimension "Health efficiency" (4) paragraphs, the third dimension "Safety of service providers" (4) Paragraphs.

3.5.2 Testing validity and reliability to study instrument:

1) Content validity: To ensure that the questionnaire includes a set of sufficient, appropriate and representative items for the concept, the more the questionnaire items represent the concept to be measured, the greater the content validity.
2) Apparent validity: which measures the general appearance of the questionnaire in terms of the clarity of the phrases and terms contained in it. Therefore, the study tool was presented to a group of arbitrators, their comments were taken, and a pilot survey was conducted on a group of the study sample.
3) Self-validity: This is to ensure that the questionnaire is valid to measure what it aims to measure, as the subjective or actual validity coefficient was calculated by taking the square root of the reliability coefficient "Cronbach's alpha", see Table (5).
4) Stability of the study instrument: The stability of the questionnaire means that it gives the same results if it were redistributed more than once under the same conditions, through the use of Cronbach's alpha coefficient.

Table 5: Self-validity and reliability coefficients of the Cronbach's alpha test for the dimensions of the study instrument

No.	Dimensions	Paragraphs	Self-validity	Stability coefficient Cronbach's Alpha
Total Quality Standards				
1	Senior Management Support	5	0.948	0.899
2	Customer focus	4	0.969	0.938
3	Employees Focus	5	0.938	0.879
4	Operations Focus	4	0.969	0.939
5	Decision making	5	0.958	0.917
6	Continuous Improvement	5	0.987	0.975
Performance of Health Facilities				
1	Clinical effectiveness	5	0.930	0.865
2	Health efficiency	4	0.934	0.872
3	Security of service providers	4	0.962	0.926

5) It shows in table (5) after calculating the self-honesty coefficient by taking the square root of the Cronbach's alpha reliability coefficient that the self-honesty coefficient for all axes and dimensions is above the required rate (0.6), where the lowest dimension scored (0.930), which indicates that the questionnaire It is valid for measuring what it was designed to measure.

The Seybold Report
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It also shows in table (5) that all reliability coefficients are greater than the minimum specified for accepting the reliability of the tool, at the level of each dimension and each axis. This means that the reliability characteristic is available in all axes and dimensions of the study tool and to a high degree. The value of the reliability coefficient for the axes ranged between (0.865 - 0.975) which are very high values that confirm the validity of the tool for research and analysis purposes. Construct validity: Construct validity is one of the measures of tool validity, which measures the extent to which the goals that the tool wants to reach are achieved, as it shows the extent to which each item relates to the dimension to which it belongs. To verify the availability of construct validity, or what is sometimes called discriminant validity, or internal consistency of the questionnaire items, through the use of Pearson correlation coefficient calculates the correlation coefficients between each item and the total score of the dimension to which this item belongs, as show in following table (6):

Table 6: Structural validity of the correlation coefficients of items with their dimensions

Total Quality Standards							
Dimension	**Paragraph No.**	**Link to Dimension**	**Indication**	**Dimension**	**Paragraph No.**	**Link to Dimension**	**Indication**
Senior Management Support	1	.868**	0.00	Employees Focus	1	.900**	0.00
	2	.908**	0.00		2	.924**	0.00
	3	.869**	0.00		3	.912**	0.00
	4	.913**	0.00		4	.912**	0.00
	5	.843**	0.00		5	.832**	0.00
Customer focus	1	.847**	0.00	Operations Focus	1	.884**	0.00
	2	.901**	0.00		2	.879**	0.00
	3	.897**	0.00		3	.885**	0.00
	4	.858**	0.00		4	.776**	0.00
Decision Making	1	.892**	0.00	Continuous Improvement	1	.827**	0.00
	2	.892**	0.00		2	.898**	0.00
	3	.908**	0.00		3	.869**	0.00
	4	.904**	0.00		4	.882**	0.00
	5	.891**	0.00		5	.869**	0.00
Performance of Health Facilities							
Dimension	**Paragraph No.**	**Link to Dimension**	**Indication**	**Dimension**	**Paragraph No.**	**Link to Dimension**	**Indication**
Clinical Effectiveness	1	.765**	0.00	Security of Service Providers	1	.779**	0.00
	2	.806**	0.00		2	.849**	0.00
	3	.843**	0.00		3	.911**	0.00
	4	.840**	0.00		4	.877**	0.00
	5	.786**	0.00				
Health Efficiency	1	.483**	0.00				
	2	.294**	0.00				
	3	.504**	0.00				
	4	.394**	0.00				

It shows in Table (6) that all the correlation coefficients of each item with its dimension are high, as the validity results ranged between (**.294 - **.924.) This indicates the strength of the internal cohesion of the paragraphs of each dimension and axis to which they belong, which means that the tool (the questionnaire It has construct validity and high internal consistency,

The Seybold Report
ISSN 1533-9211
DOI: 10.5281/zenodo.12153482

and its results can be trusted and valid for measuring what it was designed to measure.

Answering the study questions (Descriptive Statistics)

This section includes a review of the results of the analysis of the data of the field study tool to answer the study's questions and to know the implications of the analysis results, the verbal estimation limits for the arithmetic mean values were calculated, as show in following table (7):

Table 7: length of categories

Upper category	Minimum category	Verbal appreciation
1.86	1	Strongly disagree (very low)
2.72	1.87	I don't agree (low)
3.58	2.73	Somewhat disagree (somewhat low)
4.44	3.59	Neutral (medium)
5.3	4.45	I somewhat agree (quite a big)
6.16	5.31	I agree (big)
7.00	6.17	Strongly agree (very big)

To answer the main question of the study, we review the answers to the sub-questions and test the study hypothesis as follows:

Results of the analysis of the independent variable of the study "Total Quality Standards":

Table 8: Result of Descriptive Statistics.

No.	Dimensions	Ranking	Mean	Std. deviation	Level of importance	Verbal appreciation
1	Senior Management Support	2	5.68	1.12	81%	big
2	Customer Focus	1	5.68	1.10	81%	big
3	Employees Focus	6	4.97	1.61	71%	Quite a big
4	Operations Focus	3	5.65	1.06	81%	big
5	Decision Making	5	5.42	1.36	77%	big
6	Continuous Improvement	4	5.48	1.23	78%	big
Total quality standards			5.47	1.09	78%	big

It shows in Table (8) that the total quality standards obtained an arithmetic mean (5.47) and a standard deviation (1.09) indicating a slight level of dispersion and a high level of agreement for the answers of the sample members, and a level of importance (78%) and a verbal significance (big) indicating the high agreement of the respondents at the high level. To apply total quality standards in the private hospitals under study, with the participation of all dimensions of the variable. This result for the dimension of senior management support is consistent with the results of the study (Qenawi, 2022) and (Musaed, 2019), and differs with the results of the study (Al-Ayashi, Bakhda, 2020) and (Medioni, 2016), which were in verbal terms (medium), and this result is consistent with For the dimension of customer focus with the results of the study (Kenawi, 2022) and (Medioni, 2016), it differs with the results of the

The Seybold Report
ISSN 1533-9211
DOI: 10.5281/zenodo.12153482

study (Ayachi, Bakhda, 2020), which was in verbal terms (medium). This result differs for the dimension of focus on employees with the results of the study (Kenawi). , 2022), which had a (large) verbal significance, and with the results of the study (Al-Ayashi, Bakhda, 2020) and (Medioni, 2016), which had a (moderate) verbal significance, and this result for the dimension of focus on processes is consistent with the results of the (Musaed, 2019) study. It differs with the results of the study (Medioni, 2016), which was in verbal terms (medium), and this result for the dimension of decision-making differs with the results of the study (Medioni, 2016), which was in verbal terms (medium) according to the analysis of the respondents' answers, and this result is consistent with the dimension of continuous improvement with The results of the study of (Qenawi, 2022) and (Musaed, 2019), and differ from the results of the study of (Al-Ayashi, Bakhda, 2020) and (Medioni, 2016), which were in verbal terms (medium).

According to the above, the first sub-question of the study can be answered by saying that the level of application of total quality standards in their dimensions in the private hospitals under study in the capital secretariat is large and indicates the great agreement of the respondents on the high level of application of total quality standards in their dimensions in the private hospitals under study in the capital secretariat because of their great importance for improving Performance of health facilities and provision of high-quality health services. Results of the analysis of the dependent variable of the study "Health Facilities Performance":

Table 9: Result of Descriptive Statistics.

No.	Dimensions	Ranking	Mean	Std. deviation	Level of importance	Verbal appreciation
1	Clinical Effectiveness	3	5.83	0.96	83%	big
2	Health Efficiency	1	6.08	0.85	87%	big
3	Security of Service Providers	2	5.87	1.04	84%	big
Performance of Health Facilities			5.92	0.8	85%	big

It shows in Table (9) that the dependent variable of the study "performance of health facilities" and according to the analysis of the results of the study sample's answers to the field data collection tool "the questionnaire" obtained an arithmetic mean (5.92) and a standard deviation (0.8) indicating a very slight level of dispersion and a high level of agreement for the answers. Sample members and the level of importance (85%), with a verbal significance (big), indicating the respondents' great agreement on the performance of the health facilities in the private hospitals under study, including its three dimensions, and with the same importance and verbal significance for all dimensions, because the variable has great importance in the operation and development of all activities in the private hospitals under study. Study to achieve the goals of providing high-quality health services. The results of the study do not agree with the results of the study (Abu Hasira, 2016), which indicated that the dimension of clinical effectiveness came with a verbal meaning (low) due to the deteriorating economic situation in the hospitals under study, apparent in the infrastructure and equipment, which caused the lack of means of providing service efficiently and effectively. This result is in line with the results of the study (Abu Hasira, 2016), which indicated that the health competency dimension had a (medium)

The Seybold Report
ISSN 1533-9211
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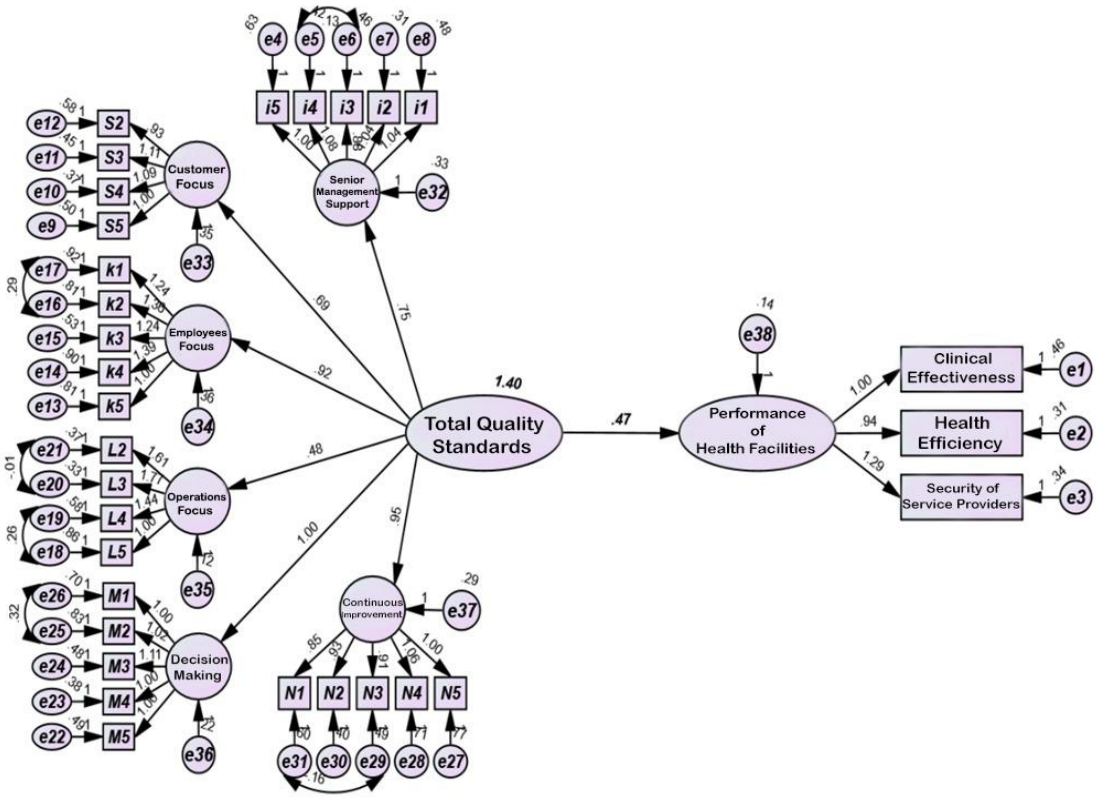
verbal meaning that is attributed to the variation in the service providers' agreement on the items of this dimension according to their availability on the ground in the hospitals under study, according to Abu Hasira. This result is not consistent. With the results of the study (Abu Hasira, 2016), which indicated that the safety dimension of service providers had a verbal meaning (low) attributed to the employees' feeling of dissatisfaction with management and the workplace, according to Abu Hasira's study, and the reason for the lack of agreement may be the spatial boundaries in which Abu Hasira's study was implemented. It is Gaza City. According to the above, the second sub-question can be answered by saying that the level of performance of health facilities, including clinical effectiveness, health efficiency, and safety of service providers in the private hospitals under study, reached a high level, indicating the high agreement of the respondents regarding the high level of performance of health facilities that the hospitals under study reached under Great development and great overall quality of health services provided.

Testing the validity of the hypothesis

To test the main hypothesis, a structural model was created between total quality standards and the performance of health facilities in the private hospitals under study, according to the following:

Figure 1: Model of the relationship between total quality standards and health facility performance



The Seybold Report
ISSN 1533-9211
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Table 10: Results of the model fit test for the quality of conformity indicators for the relationship between total quality standards and health facility performance

Measurement indicators	Acceptable conformity values	Excellent conformity values	Values of indicators resulting from data analysis
CMIN/ df	< 5	< 2	2.97
RMSEA	0.05 to 0.08	≤ 0.05	0.081
GFI	(0 – 1)	≥ 0.90	0.79
AGFI	(0 – 1)	≥ 0.80	0.75
CFI	(0 – 1)	≥ 0.90	0.91
NFI	(0 – 1)	≥ 0.90	0.87
IFI	(0 – 1)	≥ 0.90	0.91
TLI	(0 – 1)	≥ 0.90	0.90

Table 11: Paths to test the impact of the relationship between total quality standards and the of health facilities performance

Independent variable	Path	Dependent variable	(Estimate) influence factor β	S.E Standard error	C.R Critical ratio	Sig.	Result
Total Quality Standards	--->*	Health Facilities Performance	0.470	0.042	11.250	***	Statistically significant

(*) A causal relationship: the variable from which the arrow emerges affects the variable into which the arrow arrives.

(***) Statistically significant at a significance level less than (0.001).

It shows in Figure (1) and Tables (10) & (11) that the goodness of fit indicators (CFI, IFI, TLI) came close to the excellent value, while the goodness of fit indicators (ChiSq/df, RMSEA, GFI, AGFI, NFI) came close to the excellent value.

Of the acceptable value, and therefore the model of the relationship between total quality standards and the performance of health facilities is accepted, there is a positive effect of total quality standards on the performance of health facilities, where the value of (β) reached (.4700) and has a standard error of (0.042) and the critical ratio (C.R) reached Its value is (11.250), which is a significant value at a significance level of less than (0.001).

This confirms that the effect is statistically significant, and therefore the quality standards coefficient reached (.4700).

This means that an increase of (100) units in the total quality standards coefficient, its effect contributes to an increase (47) unit in the performance of health facilities. From the above, we reject the main null hypothesis and accept the alternative hypothesis that: There is a statistically significant effect of total quality standards and their dimensions on the level of performance of health facilities in the private hospitals under study in the capital secretariat.

The Seybold Report
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Through the result of testing the main hypothesis as described above, the main question of the study can be answered, which is that there is a significant statistical impact of the total quality standards and their dimensions on the level of improving the performance of health facilities in the private hospitals under study in the capital secretariat.

CONCLUSIONS

The application of the private hospitals under study to total quality standards and their interest in the performance of their facilities led to their distinction from the public hospitals that were included in the reports in the problem of the study. Therefore, the possibility of applying the study in hospitals will contribute to improving the performance and quality of health services provided and thus contributing to improving the general health of the community. Through the results of the study, the researcher reached the following conclusions:

1) The level of application of total quality standards in the hospitals under study came to a large degree, with the participation of all its dimensions except for the dimension of focus on employees, which came to a somewhat large degree.
2) The level of performance of health facilities came to a large degree with the participation of all its dimensions in the private hospitals under study and with a greater level of importance and less dispersion in the answers of the study sample regarding total quality standards.
3) There is an impact of total quality standards with the participation of all its dimensions in the level of performance of health facilities. The greater the impact of total quality standards, the greater the level of performance of health facilities in the hospitals under study.

Recommendations:

According to the conclusions he reached, the researcher recommends the following:

1) Evaluating diagnostic methods, medical equipment, the level of workers' interaction with patients, and the quality of health services provided to them, in a way that contributes to increasing clinical effectiveness within the performance dimensions of health facilities.
2) Increasing the suitability and adequacy of human equipment to provide the required health services in all hospital departments.
3) Evaluating the current administrative organization and knowing its level of compatibility with total quality standards, which increases its effectiveness.
4) Activating the evaluation and development of total quality standards in all their dimensions to increase the level of improvement in the performance of health facilities in their dimensions within the (PATH TOOL) model in order to improve health conditions and the quality of health services provided to patients and in a way that contributes to improving the general health of society.

The Seybold Report
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