

# Quality of services (QoS) in the Saudi Arabian General Hospital Using Computer Networks

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**Abstract**— This study aimed to identify the level of quality of service by the staff and patients in hospitals in Saudi Arabia. The results showed that the study sample responses about the quality of the actual services for workers measure has become high in the fields of study found statistically significant differences on the following areas: the power of response, safety and trust, and empathy due to the variable sex study and made a series of recommendations, including work on providing hospitals requirements whether it be hardware or modern equipment, and the provision of appropriate training courses for workers in their respective fields in order to improve the quality of medical services provided

**Index Terms**—QoS, hospitals, computer networks.

## I. INTRODUCTION

Quality of the most important key and critical issues have become in this period of the current century, every public and private sector organizations, in the private sector (clinics) are trying to consumer satisfaction and loyalty through high-quality products and services give value for his money, but in the public sector (hospitals), improved quality in hospitals in Saudi Arabia is a necessary step leading to the effective delivery of services because of the environmental challenges that occupies the public services to be reckoned with stature and because consumers do not have a voice or that their influence is limited no longer existed. Recent years have seen the President of changes in the management of the public sector (hospitals) in the spirit of what is called (QoS) through (TQM principles)It took some public sector organizations (hospitals) to follow different strategies to improve quality without a holistic perspective or Integrated plan, began each application quality rings, and applied in other project teams, quality assurance is the degree of enjoyment of citizen health rights in any country in the world, a fundamental criterion for the progress of nations, and a measure of the ability of the state to the advancement of its citizens, and the extent of its ability to provide a decent life health care, healthy citizens have given the international conventions the right to health special interest because it represents the importance of human life, as stated in the Universal Declaration of Human Rights, that everyone has the right to a standard of living adequate for the health and his family, including food, clothing, housing, medical care, and necessary social services.

Study Problem:

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We will highlight the problem of the research, a comprehensive quality management of hospitals in Saudi Arabia and the challenges faced and overcome them and find out the feasibility of the application of total quality management and take advantage of them after their application in hospitals. The research questions can be formulated as follows:

- 1 - Are hospitals applied in Saudi Arabia TQM?
- 2 - Is achieved those hospitals after the application of TQM a development and excellence in medical services provided to patients at a price or properly?Study hypotheses

## II. IMPORTANCE OF THE STUDY:

The importance of this study step to get to know the level of quality of medical services provided to citizens in Saudi Arabia, because most of the hospitals in the Kingdom of Saudi Arabia has medical staff and modern equipment experience as a result of the large number of financial resources and to ensure that the Ministry of Health quality of service provided to the Saudi citizen and fear for his life and this is reflected on the quality of service provided to citizens and officials put it in the image and hold them full responsibility .

## III. OBJECTIVES OF THE STUDY

This study aims to achieve the following objectives:

1. Definition of TQM concept.
2. Study the benefits and advantages of the application of total quality management in Saudi hospitals
3. We will examine the difficulties faced by hospitals when applying the generosity of the overall management.
4. We will study how to prepare a plan for the overall program quality in hospitals.
- 5 - study followed the administrative method in hospitals in Saudi Arabia .
- 6 - stand on ways to improve the overall quality.
- 7 - know the difference between total quality management and traditional management.
- 8 - knowledge of the extent of adoption of the senior management of private hospitals methods that raise the quality of service and performance.

## IV. THE LIMITS OF THE STUDY

This study determined the most Saudi hospitals in Saudi Arabia .

The study population :

This study will be on the staff and workers and patients in government hospitals in Saudi Arabia.

V. APPROACH

Quality is the definition of a standard or a goal or set of requirements with each other. The quality is the goal can be measured. Continuous effort to develop the quality standard of perfection as they suit the needs of our customers.

And know that it is the quality also improved performance and is suitable for use which expedite the provision of services to customers and reduced customer complaints and impairment losses and damaged and reboot and success in reducing costs and sales development. , Quality is the sum of the qualities and characteristics of the product or service that will lead to the wishes of any undeclared or perceived quality is to perform work diligently and to face their desired and acceptable.

VI. QUALITY STRATEGY IN HOSPITALS

1. Education and training: The commitment to education and training for all workers managers and is considered very important.

2 - Safety and Quality: The main entrance to ensure quality in such a way to produce products without clear the main disadvantages of the product

3 - Quality circle: we find that too many managers in Saudi hospitals believe that quality circles is the beginning and the end of TQM.

4 - Communication between workers: the main points made by workers if the quality is the factor that connects the units and departments and they Prerequisite for TQM, they do so is one of the effective means of communication.

5. Automated artificial intelligence: the Japanese have carefully studied robotics and automated and used when necessary. The term and, when necessary processes that can be difficult or where human error monitoring when the nature of the work boring and routine .

Factors that affect the quality of service in hospitals

Can be divided into two groups 1 - Foreign determinants 2 - internal determinant

First: The first group includes the external determinants, including:

1. Changing customer tastes and then expectations for service in hospitals.
2. The extent of competition: The more competition could increase the tightening of management about the quality and size of the sample scan of the final outputs
3. The standards set by the development or the relevant governmental bodies, standards and specifications to be the hospital's commitment to
4. The degree of stability of demand for the product: As demand continues settled encouraged to spend on research and development programs to improve the quality.
5. The extent of state support to the process of research and development: to provide training and technical support in areas that contribute to the development of the service in hospitals .

Second: The second group is the following internal determinants:

1. The level of quality of service: As it is assumed that the service in light of the results of market studies that aim To:

- (A) identify customers who are served by hospitals types.
- (B) Identify the motivations and consumer habits.
- (C) Determine the characteristics of the competition hospitals.
- (D) Determining the demand for each hospital size helps determine the suitability of a typical production that was a big demand or continuous production about the custom that was specified or intermittent.

2. The level of quality of service process design in hospitals. Here depends on the quality of the design of all the stages of the design process in terms of assembling all the interior elements and design work for each worker, as well as the monitoring system on quality.

3. Unions performance level: This comes from the effectiveness and integrity of individual policies such as: A selection and appointment in the appropriate function. (B) Training and development to create the technical and behavioral necessary to work in hospitals skills (C) the preparation and dissemination of performance.

4. The quality of financial input level: It is important to the homogeneity of production requirements in terms of quality and balance of their useful lives so as not to wear out an important element which impairs or nullifies the functionality of the service as a whole.

5. How effective after-sales services: such as manuals or instructions on how to use the services provided and the knowledge of its advantages by effective impact on the quality level.

6. the availability of an effective system of quality information that an effective system of information helps to predict the quality deviations before they occur or discovered soon as they occur and to reduce or lack of quality also helps to identify the most appropriate remedies.

The evolution of the concepts of quality in hospitals

I've gone through phases of quality in hospitals as follows evolution:

- The initial phase of service quality in hospitals
  1. Reduce the defective production rate.
  2. Perform the work right the first time.
  3. Measuring the cost of defective production.
  4. Stimulate the hospital workers to comply with the terms of quality and quality control.
  5. Flexibility in dealing with persons
- Phase II satisfies the wishes of the client for the service provided.

1. Approaching the client.
2. Understand the needs and expectations.
3. Make all decisions based client desires.

The third stage of quality as a key factor in the competition between hospitals

1. Make hospitals basis of all decisions.
  2. Approaching hospitals and more customers from competitors.
  3. Identify competitors and try to overcome them.
  4. Find the reasons for the departure of customers from dealing with the hospital.
- The fourth stage of TQM:

1. The number of quality improvement in hospitals strategy.
2. Identification of standards (levels) quality in hospitals
3. Determine the rate (speed) to achieve standards in hospitals.
4. Involve all proficient individuals at work.
5. Use of flexibility in dealing with visitors
6. Maintain production efficiency in hospitals
7. Stimulate workers in hospitals.

## VII. RECOMMENDATIONS

Based on the results of the study suggest the following recommendations:

1. Provide a sufficient number of qualified medical personnel to accommodate the number of patients, and private physicians in certain specialties, as well as providing nurses trained and experienced.
2. Provide special places for convalescent patients, such as a private garden at the hospital, through the purchase of a piece of land adjacent to the two hospitals to establish the park
3. The need to provide treatments in the hospital.
4. Work on the provision of information systems by employing someone who has qualified and computer courses and work on finding E. software so special, to follow up on cases of patients whether it's inside the hospital, or when the patient out.
5. The need to highlight the role of Saudi women, sufficient attention to them, and work to meet their needs, whether working or sick in hospitals.
6. The need to consolidate a culture of quality among medical staff through awareness programs.
7. Work on the provision of hospital supplies whether it's hardware or modern equipment, and the provision of adequate training courses for workers in their respective fields in order to improve the quality of medical services provided.
- 8 - . The existence of hospital care strategy for action and political TQM plans.
9. Senior management must care hospitals work to improve medical service constantly in order to compete.

## VIII. RESULTS

The quality in hospitals need coordination between administrative policies and style of leadership and strategic guidance TQM and also encourage innovation policy for the application of TQM concept and it will require solidarity between the hospital staff for paperwork to reach the required quality, as well as modern equipment and devices that are trying to reach for the disease without difficulty from the doctor and also to be the availability of medicines in the pharmacy constantly to ensure the quality of the hospital and also and also the availability of medical staff to a high level of efficiency to achieve the desired goal is of the opinion that the researcher must meet all of these ingredients to achieve the overall quality of the hospitals in Saudi Arabia

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