Sudan University of Science and Technology
Collage of Graduate Studies

The Awareness of Quality Management Among Medical Staff
In Sharg Alneel Hospital-Khartoum State

ولاية الخرطوم—الوعي بإدارة الجودة وسط الطاقم الطبي بمستشفى شرق النيل

بحث تكميلي لنيل درجة الماجستير في ادارة الجودة الشاملة والامتياز

A Thesis submitted in partial fulfillment of the requirements for the degree
of Master of Total Quality Management & Excellence

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May ٢٠١٨

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بسم الله الرحمن الرحيم

الإستهلال

قال تعالى:

(وَقُلْ رَبِّي زِدْنِي عِلْماً)

سورة طه ـ الآية ١١٤

Dedication

This thesis is dedicated to my mother, father and to my small family.

ACKNOWLEDGEMENT

Praise is to Allah, the Lord of the worlds. The blessing and peace be upon our Prophet Mohammad (peace is upon him).

First of all, I would like to thank Allah for providing me the health and the ability to finish this thesis and it is him I seek to support as my life goes on.

I would like to thank Sudan University of Science and Technology for giving me a chance to do this thesis.

I am very grateful to my supervisor Professors:Ali A/ RahmanAlifor his advice and guidance.

I want to thank all of the department faculty members for their help support especially Mr. Mohammed Ali.

Also am very thankful to all ShargAlneel staff for giving me the opportunity to do this study among them.

ABSTRACT

This thesisis to assess the awareness of the medical staff about quality management inShargAlneel Hospital.

Quality management is increasingly became an important issue in all services as it improves the processes, the outcome and the customer satisfaction in addition to reducing the cost, also it granted the continuity of the service as the market competition is growing so perception of quality management should be assessed in order to properly implement quality management and to insure the best outcome.

The sample of the study was randomly selected from the study population, ٢٢٠ questionnaires were distributed to target nurses, medical specialists, medical administrators, general doctors and other medical staff in SharqAlneel Hospital, and ١٩٦ respondents responded, the data was analyzed using the Statistical Package for Social Sciences.

This study concludes that as propose in the main hypothesis awareness determine attitude toward quality management in a positive way as٦٩٫٤ % of the study population are aware of the meaning of quality management and this give the positive clue to the awareness level among the medical staff inShargAlneelhospital.

مستخلص البحث

تهدف الدراسةلتقييم وعي الطاقم الطبي بمستشفى شرق النيل بإدارة الجودة.

وحيث انه أصبحت إدارة الجودة بشكل متزايد قضية مهمة في جميع الخدمات حيث أنها تحسن العمليات ، والنتائج ، ورضا العملاء بالإضافة إلى خفض التكلفة ، كما أنها تساعد على استمرارية الخدمة مع تزايد المنافسة في السوق.و من أجل تنفيذ إدارة الجودة بشكل صحيح وضمان أفضل النتائج يجب تقيم إدراك مفهوم الجودة لدى الطاقم العامل بالخدمات الصحية.

وكانت منهجية البحث باختيار عينة الدراسة عشوائياً من مجتمع الدراسة ، وتم توزيع ٢٢٠ استمارة استقصاء على الممرضات والمختصين الطبيين والمسؤولين الطبيين والأطباء العامين والعاملين الطبيين الآخرين في مستشفى شرق النيل ، وقد رد عليها ١٩٦ من الطاقم الطبي ،و تم تحليل البيانات باستخدام الحزمة الإحصائية للعلوم الاجتماعية.

النتائجوخلصت هذه الدراسة إلى أن الوعي في الافتراض الرئيسي يحدد الاتجاه نحو إدارة الجودة بطريقة إيجابية حيث أن ٦٩,٤٪ من مجتمع الدراسة يدركون معنى إدارة الجودة وهذا يعطي فكرة إيجابية لمستوى الوعي بين الطاقم الطبي في مستشفى شرق النيل.

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١،١ Introduction

Quality management is increasingly became an important issue in all services as it improves the processes, the outcome and the customer satisfaction in addition to reducing the cost, also it granted the continuity of the service as the market competition is

growing. On the other hand, Quality management is the way to assure product and service quality. Moreover, it is a way of managing people and business processes to guarantee high customer satisfaction at every stage, internally and externally (Badrick, ٢٠٠٢).Or Quality management is a way of doing business that continuously improves products and services to achieve better performance.

Quality management is a philosophy as well as a set of guiding principles and practices that represent the foundations of a continuously improving organization. It integrates fundamental management techniques, existing improvement efforts, futuristic quality plans, innovations and their successful implementation. In Quality management everyone strives to get things right at the first time, every time. Quality management, combined with effective leadership, results in an organization doing the right things in a professional way (Gupta, ١٩٩٩).

From all of the above definitions and criteria it can be concluded that Quality management activity in health care is very critical tool in order to provide a safe effective service to the customer who demands cure without harm. furthermore this required compliance from all the healthcare staff specially the medical staff which will execute a crucial part of the medical services, for that to be achieved there must be an acceptable amount of knowledge among this group which this thesis is trying to examine by determined the awareness of Quality management among the medical staff of Sharg Alneel Hospital as an example of private hospital in Sudan.

١٫٢.Problem statement
Quality management became mandatory part of the medical services as medical errors and competition among health care providers increase an in order to establish a quality management program the awareness of the medical staff should be assessed to provide in-depth knowledge to help in the implementation of the quality management and improving the medical services. Is the awareness of the medical staff can affect the attitude towards quality management?

١٫٣. Hypotheses
- The awareness of the medical staff determines the attitude towards quality management.

١٫٤. Sub- Hypotheses
- To assess the awareness of the medical staff about quality management in Sharg Alneel Hospital

- To determine the method needed to increase the awareness of quality management in Sharq Alneel Hospital.

CHAPTER TOW

٢. ١ **Literature Review**
٢،٢. **Quality management**

It is considered that the primary purpose of the management of an organization is to provide value to customers through its products and services. The profit obtained is to be used for rotating a reproducible cycle of customer value provision. Quality is generally defined as "a totality of characteristics of an entity that bears on its needs and expectations". As the customers have needs and expectations, quality is regarded as the evaluation of the value provided through products and services from customer viewpoints. Then, quality is the primary and direct purpose of the management of an organization. If we define quality management as "management focusing on maintaining and enhancing customer evaluation of the value that is provided through products and services", namely "management for quality", quality management will be a management tool covering a wide range of general management. There are two important leading principles in quality management. One is "quality-centered" and the other is "systems orientation". Quality management pays attention to "quality". Quality is essential in comparison with cost, volume, efficiency and others. To achieve quality, quality management focuses on systems, or processes and resources. In other words, it focuses on factors affecting the results.
This is a general principle for effective and efficient management.

A well-organized way of "managing for quality" will function as follows:
- An organization is established to provide value to customers.
- The value is provided to customers through products and services.
- Quality management focuses management systems on ensuring quality.
- The management system will be a comprehensive one.
- This will result in improving brand value and financial results.

Then, the fundamental scheme of quality management can be described as follows:
Systems (Processes + Resources) $\longrightarrow$ Customer satisfaction $\longrightarrow$ Financial results.
(Quality Approach To Healthcare – Fundamentals, ٢٠٠٩)

Another definition for quality management is that it is a set of improvement and assessment techniques and tools to improve the overall performance of systems including quality assurance techniques.
Quality management can also be looked at as an organization-wide comprehensive management system including values, participation, teamwork and empowerment.

٢٠٢٠١. **Total Quality Management** (TQM) is a management approach of an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction and benefits to all members of the organization and to society. Also the world health organization defines total quality management as "it is an organization-wide management strategy / philosophy / program aiming at embedding awareness of quality among

all staff and at involving every process of the organization in a cycle of continuous improvement with the aim of satisfying the customers' needs and expectations"

٢،٢،٢.**Quality assurance** focuses on ensuring that a set of processes for service delivery/production is strictly adhered to, to minimize defects or variations in the final products or services, e.g. standard operating procedures (SOPs), guidelines. Also it can be defined as all activities that contribute to defining, designing, assessing, monitoring, and improving the quality of healthcare.

٢،٢،٣.**Quality control** concerned with checking and reviewing work that has been done (product or end service), e.g. exit interviews, client satisfaction surveys, inspection, testing and sampling. (Implementation Guidelines for the Kenya Quality Model for Health, ٢٠١١)

In other words quality may be described as follows:

A 'health care delivery system' is a series of interlinked processes, each of which results in one or more outputs. 'Quality' represents an individual's subjective evaluation of an output and the personal interactions that take place as the output is delivered to the individual. it is rooted in that individual's expectations, which depend upon the individual's past experiences and needs. Quality evaluations therefore arise from, and are part of, an individual's value system. As a value system, quality expectations can be measured and changed over time through education. They cannot be dictated. Quality has two main components—content and delivery. Content quality is concerned with the medical outcome that is achieved. Although patients and payers are playing an increasingly active role in evaluating medical content quality, it has traditionally been the province of physicians and other health care professionals. Delivery quality reflects an individual customer's interaction with the health care system—for a patient, was the hospital clean? Were the nurses caring and informative? Were services delivered rapidly, cheerfully, and with understanding of the patient's individual needs and preferences? a 'customer' is any individual who makes a quality judgment regarding any output produced by a health care process, or the personal transaction in which the output was delivered. (BC James - ١٩٨٩)

٢،٢،٤.**Quality management in health care**
Quality in health care has been defined by many quality authors and organizations reflecting the essential role it plays in this service as the (Institute of Medicine (IOM), ١٩٩٩) stated that " Quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."

In ٢٠٠١, the IOM Committee on Quality of Health Care in America further clarified the concept of healthcare quality by setting quality characteristics,
Listed as six Critical Concepts as follow.
A. Safety—Care intended to help patients should not harm them.
B. Effectiveness—Care should be based on scientific knowledge and provided to patients who could benefit. Care should not be provided to patients unlikely to benefit from it. In other words, underuse and overuse should be avoided.
C. Patient-centeredness—Care should be respectful of and responsive to individual patient preferences, needs, and values, and patient values should guide all clinical decisions.
D. Timeliness—Care should be provided promptly when the patient needs it.
E. Efficiency—Waste, including equipment, supplies, ideas, and energy, should be avoided.
F. Equity—the best possible care should be provided to everyone, regardless of age, sex, race, financial status, or any other demographic variable.

Furthermore Dr. Donald Berwick (٢٠٠٥), president of the Institute for Healthcare Improvement, put this description into consumer terms when he wrote about his upcoming knee replacement and what he expected from his providers:
A. Don't kill me (no needless deaths).
B. Do help me and don't hurt me (no needless pain).
C. Don't make me feel helpless.
D. Don't keep me waiting.
E. Don't waste resources—mine or anyone else's.

For this reason quality management implementation in healthcare is very essential, and in order to implement it, there must be knowledgeable medical staffs that are capable of using quality to achieve the best outcome. However Quality in health care institutions is different from other organizations since the product, i.e. health care, is a multifaceted and multidimensional product which is delivered personally to the customer. Interaction between the provider and consumer significantly affects perception of quality (Gupta, ١٩٩٩).

There are seven criterions to identify quality and safety in health care as defined by Malcolm Baldrige performance excellence criteria and specific items for healthcare (US General Accounting Office, ١٩٩١and Harvey, ١٩٩٢).They include:
١. A leadership that examines how senior executives guide the organization and how the organization deals with its responsibilities to the public and practices good citizenship.
٢. A strategic planning that examines how the organization sets strategic directions and how it determines key action plans.

٣. A customer and market focus that examines how the organization determines requirements and expectations of customers and markets builds relationships with customers, and acquires, satisfies, and retains customers.

٤. Measurement, analysis and knowledge management, which examine the management, effective use, analysis, and improvement of data and information to support key organization processes and the organization's performance management system.

٥. Human resources who focus and examine how the organization enables its workforce to develop its full potential and how the workforce is aligned with the organization's objectives.

٦. Process management which examines aspects of how key production/delivery and support processes are designed managed and improved.

Business results that examine the organization's performance and improvement in its key business areas including: customer satisfaction, financial and marketplace performance, human resources, supplier and partner performance, operational performance, and governance and social responsibility. This category also examines how the organization performs relative to competitors. (Avedis Donabedian, ٢٠٠٥)

Although quality management can be explained by the activities which it served there are three primary quality management activities—measurement, assessment, and improvement—evolve in a closely linked cycle. Healthcare organizations track performance through various measurement activities to gather information about the quality of patient care and support functions. Results are evaluated in the assessment step by comparing measurement data to performance expectations. If expectations are met, organizations continue to measure and assess performance. If expectations are not met, they proceed to the improvement phase to investigate reasons for the performance gap and implement changes on the basis of their findings. The quality management cycle does not end at this point, however. Performance continues to be evaluated through measurement activities.

Quality management activities in healthcare organizations are constantly evolving. These changes often occur in reaction to external forces, such as regulation or accreditation standard revisions and pressure to control costs. Healthcare quality management is also influenced by other industries. Improvement strategies used to enhance the quality of products and services are frequently updated as new learning emerges. Since their inception in ١٩٨٢, the Baldrige Quality Program Criteria have undergone several revisions. Healthcare quality management changed in ١٩٩٨ when the Baldrige Criteria were adapted for use by healthcare organizations. In addition, the science of quality management, once reserved for the manufacturing industry, is now used in healthcare organizations.

The rules and tools of healthcare quality management will continue to evolve, but the basic principles of measurement, assessment, and improvement will remain the same.

٢٫٢٫٥.Medical Staff

For Hospitals the accreditation standards require that hospitals have an organized medical staff. Which is comprises physicians, dentists, and other professional medical personnel who provide care to the hospital's patients independently. The theory behind the quality role of the organized medical staff is that lay members of the board are neither trained nor competent to judge the performance of physicians and other medical professionals. Therefore, the medical staff is delegated the responsibility of evaluating the quality of patient care provided by physicians and other medical professionals and advising the board of the results. The board retains legal authority to make final decisions. The Joint Commission standards require that medical personnel have bylaws and rules/regulations that establish mechanisms by which they accomplish their tasks. The medical staff infrastructure for accomplishing its quality management responsibilities are found in these documents. The Joint Commission (٢٠٠٨, ١٣٨) standards require, at a minimum, the formation of a medical staff executive committee to represent physicians in the organization's governance, leadership, and performance improvement functions. Additional medical staff committees or groups may be formed to fulfill other quality management functions. The increasing scope and volumes of quality management activities are affecting the quality support workforce in healthcare organizations. More than half of the ٣٦ hospitals interviewed in a ٢٠٠٥ study had in the past year substantially increased the number of full-time equivalents devoted to performance measurement and improvement activities (Pham, Coughlan, and O'Malley ٢٠٠٦).

٢٫٣.   Quality awareness

 (Its synonym quality consciousness) is most essential topic for realizing quality and quality integration in practical cases. The concept may be defined very simply: having knowledge of quality. However, what is the meaning of this is not at all any simple thing. Awareness is a profound totality of physical, psychological, and philosophical aspects of sensations, perceptions, ideas, attitudes, and feelings related to an individual or a group having knowledge of the abstract and comprehensive object of quality of a certain item, at any given time, or within a given time span.

In a study about the Awareness to Implementation on Select Quality and Patient Safety Indicators Among Nursing Staff done by Ali Yawar Alam and Mohammad Khalid Alabdulaali Strategy Management Department, Health Affairs Al Ahsa, Ministry of Health, Kingdom of Saudi Arabia concluded that The awareness level of the nurses in terms of quality of care and related hospital policies/procedures. Was (٧٠٪), patient safety and International patient safety goals and related hospital policies/procedures. Nurses depicted a good knowledge of the patient identification policy in the hospital (٨٠٪). Knowledge about panic value reporting policy in the hospital was the weakest

(٥٨٪). Other patient safety indicators showed acceptable knowledge level (>٧٠٪) of the nurses and general safety was highest (٩٢٪) for nurses correctly explained the significance of yellow waste disposal bags, while ٩٠% correctly pointed out the nearest fire exit. Unacceptable low level of awareness was depicted by nurses in terms of earth quake procedure policy (١٨٪), emergency preparedness in terrorist attack (٢١٪) and bomb threat action card policy (٢٦٪). was found to be good. The compliance on quality and patient safety indicators was lower than the knowledge level. A conceptual framework has been devised addressing the knowledge implementation gap which would be of interest for health care leaders world-wide. The challenge of transforming knowledge to patient care practices needs to take account of work environment determinants(such as; strong general and departmental orientation of nurses, patient/nurse ratio, clinicians involving nurses in clinical decision making process and tracking outcomes of care, mutual trust among team members, teams of physicians and nurses learning together by doing rather than traditional teaching, effective supervision of nurses, and presence of enabling champions in the unit) in order to make the hospital compliant to its policies and procedures. (Alam and Alabdulaali, J Comm Pub Health Nursing ٢٠١٦)

٢,٤.   Attitude
Is a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards (together called stimuli).
Four major components of attitude are (١) Affective: emotions or feelings. (٢) Cognitive: belief or opinions held consciously. (٣) Conative: inclination for action. (٤) Evaluative: positive or negative response to stimuli.
A study done to determine the attitude change after training and they asks certain question before and after the traning and the result was A significantly positive change in attitude was noted among participants regarding the time assigned to improvements , in the overall group (p=٠,٠٥٤٧) and specifically in the group of residents (p=٠,٠٨٣٨).also There was an overall and positively significant change regarding the perception of clear criteria for determining if a change constituted an improvement (, p=٠,٠٠٠٨). Turning to specific groups, there was significant improvement in attitudes for all managers (p=٠,٠٠٠٩), for managers that had been working six to nine years in their current position (p=٠,٠١٩٨), for managers that had been working more than ten years in their current position (p=٠,٠٤٥٨) and for team leaders (p=٠,٠٨٦٧).on the other hand There was no overall significant change in attitude with regard to the need for working differently because of decreased resources . However, team leaders had a significantly negative change in attitude regarding this aspect (p=٠,٠٤٧٥). Even though this study identified some significantly positive and negative changes in attitudes, results indicated that in order to change attitudes, a different kind of initiative might be called for. The results concerning established managers indicated that they require a different type of

training and that the training provided was not suitable to the goal of changing their attitudes in a positive direction. (Siverbo, K. ; Eriksson, H. ; Raharjo, H. ٢٠١٤)

Another study was done in Al Qassim saudi Arabia assessing the perception of quality management among medical staff in Al Qassim hospital within this study they measure the awareness of the stuff about quality programs which show that (٦٥٪) of the study population were aware of the quality programs while ٣٥٪ were totally ignorant also they assesse the awareness participation of the study sample individuals in quality assignments for which ٥٤٪ claimed that they participate in a quality assignment, another way of awareness assessment was the understanding of the meaning of quality in health care and it was appeared to be that ٨٥٪ of the physicians understand the meaning and it was decreased to ١١٪ when the concepts were checked. .(Pak J Med Sci.٢٠٠٢) .

In a study of the Perceptions of quality in primary health care: perspectives of patients and professionals based on focus group discussions. The focus group technique was applied in the study as a qualitative research method for exploration of attitudes regarding the health care system and health service. They were concluded that Very strict conclusions are difficult to be drawn from a qualitative analysis. However, this study shows, at international level, the perceptions and views of patients interacting with primary health care and opinions of professionals working in primary health care. It serves as a source of criteria with relevance to everyday practice and experience. Based on these criteria quality indicators can be found in the literature or developed, if necessary. This study shows that the personality of the general practitioner is a determinant of the quality of care but is difficult to be planned and influenced. From this point of view, those countries where primary health care is provided by individual generalists are more vulnerable than those based on group practices or health centers. The evolution of primary health care models operated by different European countries has been guided over the long term by country-specific requirements. However, despite their differences, we have found that the shared challenges in primary health care quality for the studied countries are access, equity, appropriateness, and organizational responsiveness to patient and professional needs. (BMC Family Practice ٢٠١٤).

٢,٥.   Awareness and attitude of quality management among medical staff

Hospitals are complex organizations requiring administrative and organizational support to meet the demands placed on them (Ruiz and Simon, ٢٠٠٤). Such requirements call for a conceptual breakthrough in healthcare and for changing the focus from medical management to organizational management (Hansson, ٢٠٠٠).

Priorities for meeting these requirements include improvements in patient safety, accessibility to healthcare, an increased focus on patients and increased internal and external efficiency (Institute of Medicine, ٢٠٠١). To meet the conceptual breakthrough

that healthcare is facing, the knowledge of improvement, innovation and transformation of healthcare systems and processes are needed. In particular, improvement knowledge is getting increased attention as a possible solution to the contemporary challenges faced by healthcare (Batalden et al., ٢٠١١).

Deming, a pioneer in this field, identified four domains of improvement knowledge that an individual needs to grasp in order to gain profound knowledge; ١) appreciation of a system

٢) Knowledge of variation ٣) theory of knowledge, and ٤) knowledge of psychology (Deming, ١٩٩٣). However, there are major obstacles to undertaking systematic quality improvement work in healthcare. Organizational structure, leadership style, organizational culture, the demand for autonomy in the profession, a lack of consensus, the priority of internal requirements and resource constraints may constitute such obstacles(Yang, ٢٠٠٣). Batalden and Davidoff concluded that considering the evidence alone is insufficient for realizing change but that one also needs to have the context in mind (Batalden and Davidoff, ٢٠٠٧).In addition, knowledge on how to accomplish change is needed, i.e. Knowledge about "planning for change" and "the execution of planned change".

Building a culture in which managers and their organizations are capable of learning from evidence is a critical aspect in achieving greater customer satisfaction (Rousseau, ٢٠٠٦). However, the continuously high workload in hospitals results in a situation when individual patient care is often given priority over efforts for individual, team and organizational learning, improvement and innovation. Moreover, Vincent et al. suggest that multidisciplinary centers for safety and quality improvement are needed in which many different disciplines could come together to improve the delivery of healthcare services (Vincent et al., ٢٠١١).Long-term success in quality improvement requires changes in attitude as well as behavior (Bergman and Klefsjö,٢٠١٠).

Behavioral change among healthcare professionals may be promoted through "reminders (manual or computerized), multifaceted interventions (a combination that includes two or more of the following: audit and feedback, reminders, local consensus processes, or marketing) and interactive educational meetings (participation of healthcare providers in workshops that include discussion or practice)" (Bero et al., ١٩٩٨). On the other hand, Interventions in the form of educational materials (distribution of recommendations for clinical care, including clinical practice guidelines, audiovisual materials, and electronic publications) and didactic educational meetings (e.g. Lectures) have shown little or no effect. Grol and Grimshaw conclude that changes in behavior generally require comprehensive approaches at different levels (doctor, team practice, hospital, wider environment), tailored to specific settings and target groups (Grol and Grimshaw, ٢٠٠٣).Regarding training in improvement knowledge, the focus of previous research has either been on changing existing educational programs for physicians, nurses and other

healthcare providers (Kyrkjebo et al., ٢٠٠١; Leach, ٢٠٠١),or the training of healthcare professionals, which is the focus of this article. Vinci et al. studied the effects of a quality improvement curriculum on residents' knowledge and skills in improvement, showing that quality improvement projects may result in improvements of residents' knowledge (Vinci et al., ٢٠١٠).

٢,٥,١.Clinical Audit definition

Clinical audit is the process formally introduced in ١٩٩٣ into the United Kingdom's National Health Service (NHS), and is defined as "a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change".

Anther definition for Clinical audit is the systematic review of elements of clinical care against predetermined criteria, with the aim of identifying areas for improvement and then developing, implementing and evaluating strategies intended to achieve that improvement.(Partnering for performance – Toolkit)

The key component of clinical audit is that performance is reviewed (or audited) to ensure that what should be done is being done, and if not it provides a framework to enable improvements to be made.

٢,٥,٢.Types of Clinical Audit

- Standards-based audit - A cycle which involves defining standards, collecting data to measure current practice against those standards, and implementing any changes deemed necessary.

- Adverse occurrence screening and critical incident monitoring - This is often used to peer review cases which have caused concern or from which there was an unexpected outco. The multidisciplinary team discusses individual anonymous cases to reflect upon the way the team functioned and to learn for the future. In the primary care setting, this is described as a 'significant event audit'.

- Peer review - An assessment of the quality of care provided by a clinical team with a view to improving clinical care. Individual cases are discussed by peers to determine, with the benefit of hindsight, whether the best care was given. This is similar to the method described above, but might include 'interesting' or 'unusual' cases rather than problematic ones. Unfortunately, recommendations made from these reviews are often not pursued as there is no systematic method to follow.

- Patient surveys and focus groups - These are methods used to obtain users' views about the quality of care they have received. Surveys carried out for their own sake are often meaningless, but when they are undertaken to collect data they can be extremely productive.

٢,٥,٣.The Place of clinical audit in modern healthcare

Clinical audit comes under the Clinical Governance umbrella and forms part of the system for improving the standard of clinical practice.

Clinical Governance is a system through which NHS organizations' are accountable for continuously improving the quality of services, and ensures that there are clean lines of accountability within NHS Trusts and that there is a comprehensive program of quality improvement systems. The six pillars of clinical governance include:

- Clinical Effectiveness
- Research & Development
- Openness
- Risk Management
- Education & Training
- Clinical Audit

Clinical audit was incorporated within Clinical Governance in the ١٩٩٧ White Paper, "The New NHS, Modern, Dependable", which brought together disparate service improvement processes and formally established them into a coherent Clinical Governance framework.(NHS Executive, ١٩٩٦)

Professional bodies such as the medical colleges support and encourage their members and fellows to participate in clinical audit. Participation in clinical audit is mandatory as part of a continuing professional development (CPD) program for some specialist colleges.

Successful clinical audit requires:

- A clearly defined issue or problem
- An ability to measure clinically relevant elements of care which clearly reflect that problem
- An ability to apply that measure in a rigorous and consistent way which best reflects patient care
- An ability to change care processes to drive any subsequent improvement in the chosen measure
- Sufficient resources to ensure that the work can be undertaken appropriately and in a manner which ensures clinician engagement and support
- Clinical leadership.

(Understanding clinical practice toolkit ٢٠١٠)

Training health professionals in quality management has the potential to impact positively on attitudes, knowledge and behaviors. In fact, some suggest that training professionals may be just as effective as financial incentives for improving the quality of healthcare. Yet little is known about the most effective ways to train health professionals in quality management. (Health Foundation Evidence scan: Quality improvement training for healthcare professionals August ٢٠١٢).

٢،٥،٤. **On the job training**
"On the job" training (OJT) is a method of imparting training to the employees when they are on the job at the workplace. The aim of training is to make the employees familiar with the normal working situation, i.e. during the training period, the employees will get the first-hand experience of using machinery, equipment, tools, materials, etc. It also helps the employees to learn how to face the challenges that occur during the performance of the job.

Lecture Method is an oral presentation of information by the instructor. It is the method of relaying factual information which includes principles, concepts, ideas and all theoretical knowledge about a given topic. In a lecture the instructor tells, explains, describes or relates whatever information the trainees are required to learn through listening and understanding. It is therefore teacher-centered. The instructor is very active, doing all the talking. Trainees on the other hand are very inactive, doing all the listening. Despite the popularity of lectures, the lack of active involvement of trainees limits its usefulness as a method of instruction.

The lecture method of instruction is recommended for trainees with very little knowledge or limited background knowledge on the topic. It is also useful for presenting an organized body of new information to the learner. To be effective in promoting learning, the lecture must involve some discussions and, question and answer period to allow trainees to be involved actively.

A seminar may be defined as a gathering of people for the purpose of discussing a stated topic. Such gatherings are usually interactive sessions where the participants engage in discussions about the delineated topic. The sessions are usually headed or led by one or two presenters who serve to steer the discussion along the desired path. (Robert L. Jolles ،٢٠٠٥)

Workshop method is a type of interactive training where participants carry out a number of training activities rather than passively listen to a lecturer presentation. Broadly, two types of workshops exist: A general workshop is put on for a mixed audience, and a

closed workshop is tailored towards meeting the training needs of a specific group. (Robert L. Jolles ,٢٠٠٥)

CHAPTER THREE

٣. MATERIALS AND METHODS

 ٣.١.Introduction:

This chapter is describing the method and procedures followed in the implementation of this study. This includes a description of the study community and its sample, the method of preparation of its tools, the procedures taken to ascertain its validity and stability, the method followed for its application, the statistical treatments, the course includes a description and description of the study methodology.

٣٫٢. Population of the study

The study community means the total group of elements that was used to generalize the results related to the problem studied. The original study community consists of Sharq Alneel Hospital medical staff including all the registered medical staff (consultant, General practitioner, Medical Director, registrar, pharmacist, nurses, Medical engineer, Laboratory technician, nutritionist, anesthesiologist, radiologist, and physiotherapist).and the study was done between December ٢٠١٧ and May ٢٠١٨.

٣٫٣. Sample of the study

The sample of the study was randomly selected from the study population which was ٤٠٠ medical staff and the sample was ١٩٦ according to the equation.

٣٫٤. The method of data collection

٢٢٠ questionnaires were distributed to target nurses, medical specialists, medical administrators, general doctors and other medical staff in Sharq Alneel Hospital, and ١٩٦ respondents responded, who returned the questionnaires after filling them with all the required information.

٣٫٥. Method of data analysis

In order to produce accurate results as much as possible, it was important to vary the sample of the study in terms of its coverage of the following:

A. Individuals by educational level.
B. Individuals by age group.
C. Individuals of gender (males and females).
D. Individuals by academic qualification.
E. Individuals by Nationality.

Section II: This section contains the number of (١٦) question, asked to the members of the study sample to determine their response.

To obtain the most accurate results possible, the statistical program SPSS was used, which refers to the Statistical Package for Social Sciences.

٣٫٦. Statistical methods used:

To achieve the objectives of the study, the following statistical methods were used:
A. Graphic formats.
B. Frequency distribution of responses.
C. Alpha Kronbach.

D. Percentages.

Study tool:

It had been relied on the questionnaire as a main tool for collecting information from the sample of the study. The questionnaire has advantages such as:

A. Can be applied to obtain information on the number of individuals.

B. Low cost and easy to apply.

C. The ease of putting question questions and delineating their words and phrases.

D. The response provides the respondent time and gives him the opportunity to think.

٣٫٧. Stability and statistical honesty:

The consistency of the test means that the scale gives the same results if used once under similar conditions. Stability means that if a test is applied to a group of individuals and their scores are monitored, then the same test is applied to the same group and the scores are obtained, the test is perfectly stable, also known as the accuracy and consistency of the measurements obtained from the test.

One of the most commonly used methods for estimating the stability of a scale is:

a. The Alpha-Cronbach method.

B. Method of reapplying the test.

Honesty knows the validity of the instrument to measure what has been set for it (١). It has been found that the self-confidence of the statistics using the equation of self-honesty is:

$$\text{Honesty} = \sqrt{\text{the factor of viability}}$$

٣٫٨. Application of questionnaire to sample survey:

The questionnaire was distributed to a sample of (١٩٦) individuals from the research community and from outside the research sample in accordance with their characteristics with the sample of the study to calculate the stability factor, to determine the degree of response of the respondents to the questionnaire and to identify ambiguous questions and to provide preliminary testing of the hypotheses and to clarify some design and methodological problems

The stability test for the questionnaire was conducted using the Cronbach alpha coefficient and the result was ٠٫٧٨ this means that the data is stable as shown in Table (١)

Table (٣٫١)

Alpha Cronbach coefficient of the questionnaire

Honesty	stability	Number of Questions	The hub
٠٫٨٨	٠٫٧٨	١٦	The questionnaire is complete

It is clear from the results of Table (١) that all the coefficients of consistency and truthfulness of the responses of the sample to the terms related to each of the hypotheses of the study and to the complete questionnaire were greater than (٥٠٪) and some of them very close to ١٠٠٪ Is characterized by great stability and honesty to achieve the purposes of research, and makes statistical analysis sound and acceptable.

CHAPTER FOUR

٤. ١ Results

The descriptive analysis of the study variables:

The following is a detailed description of the members of the study sample according to the above variables (the characteristics of respondents):

٤.٢. Job title

Table (٤.١) and graph (٤.١) below frequency distribution to members of the study sample in accordance to the variable Job title.

Table (٤.١)

Job title	Frequency	Percentage
pharmacists	٥	٢,٦٪
nutritionists	٧	٣,٦٪
nurses	٦٩	٣٥,٢٪
General practitioners	٣٢	١٦,٣٪
consultants	١٥	٧,٧٪
Medical Directors	٦	٣,١٪
Radiologists	٨	٤,١٪
Medical engineers	١٥	٧,٧٪
Laboratory technicians	٨	٤,١٪
anesthesiologists	٨	٤,١٪
registrars	١٦	٨,٢٪
physiotherapists	٧	٣,٦٪
Total	١٩٦	١٠٠٪

Graph (٤.١)
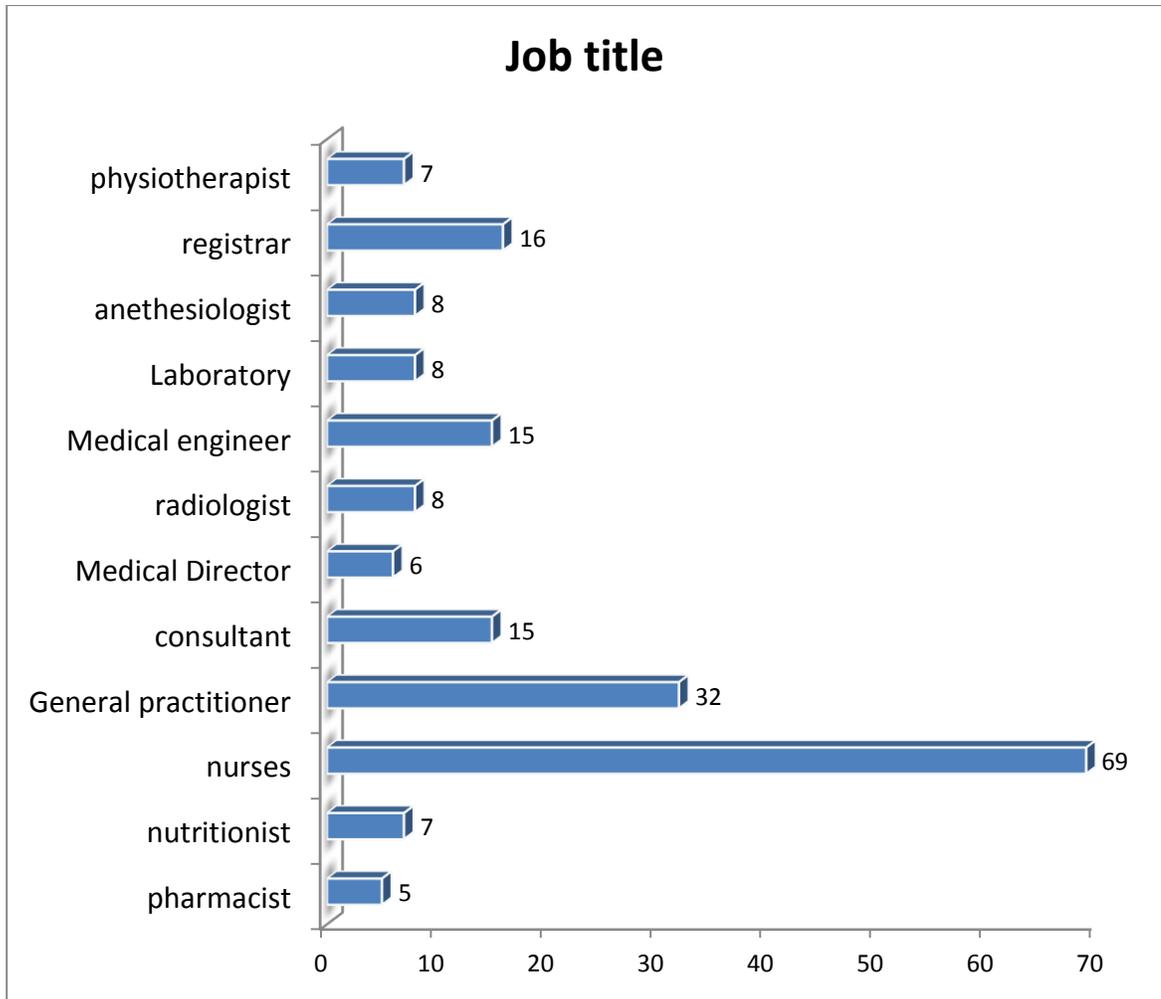
Job title

Job title	Value
physiotherapist	7
registrar	16
anethesiologist	8
Laboratory	8
Medical engineer	15
radiologist	8
Medical Director	6
consultant	15
General practitioner	32
nurses	69
nutritionist	7
pharmacist	5

Source: prepared from the field study, Excel ٢٠١٧

Can be seen from Table (٤.١) and graph (٤.١) the majority of the study sample were (Nurses), with numbered ٦٩ individuals by (٣٥،٢٪), follow them the number of (general practitioner) in the sample (٣٢) by individuals (١٦،٣٪), and then (Registrar) with numbered ١٦ by (٨،٢٪) and come the other of job titles.

٤،٣. Age:

Table (٤،٢) and graph (٤،٢) below Frequency distribution to members of the study sample according to the age categories:

Table (٤،٢)

age categories	Frequency	percentage
٢٠-٣٠yrs	١٤٢	٧٢,٤٪
٣١-٤٠yrs	٤٠	٢٠,٤٪
٤١-٥٠yrs	٤	٢٪
More than٥٠yrs	١٠	٥,١٪
Total	١٩٦	٪١٠٠

Source: prepared from the field study ٢٠١٧

Graph (٤.٢)
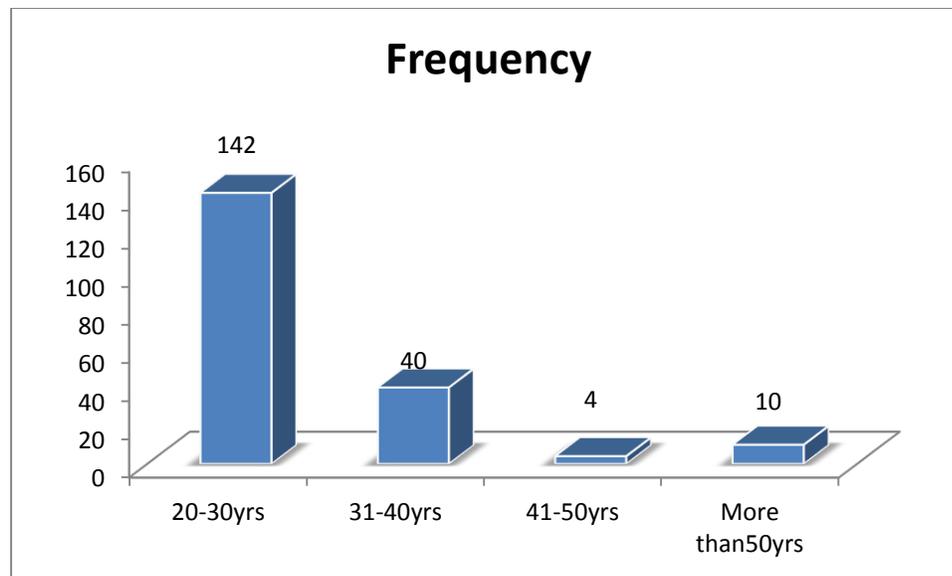
Source: prepared by from the field study, Excel ٢٠١٧

The average age of samples is (٣٠ yrs) , the most frequent age categories is(٢٠-٣٠yrs) , secondly it is (٣١-٤٠ yrs) and then (more than ٥٠ yrs) finally comes the age group (٤١-٥٠yrs).

٤,٤. Gender:

Table (٤.٣)

Frequency distribution to members of the study sample according to the Gender (male / female)

gender	Frequency	percentage
male	٩٥	٤٨,٥٪
female	١٠١	٥١,٥٪
Total	١٩٦	١٠٠٪

Source: prepared from the field study ٢٠١٧

Graph (٤.٣)

gender

male 48%
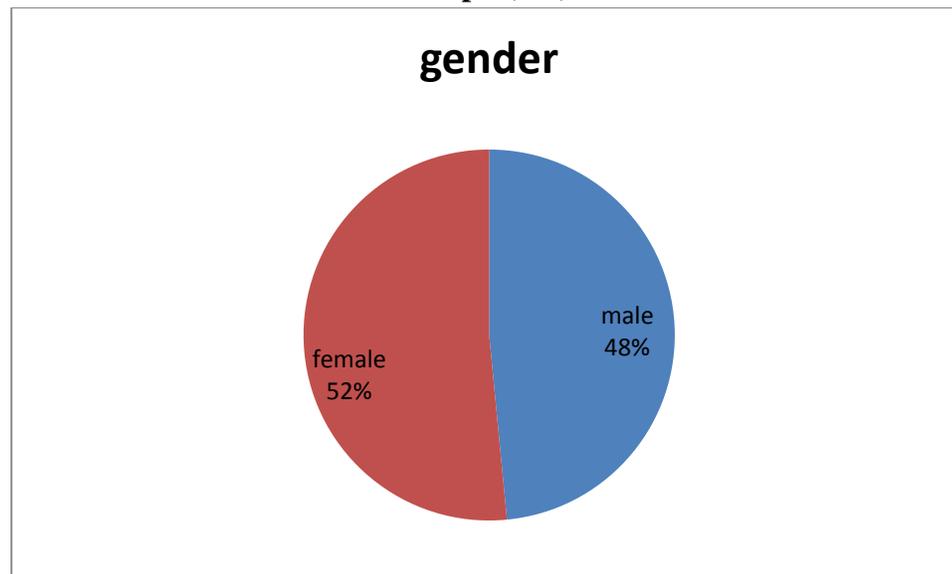
female 52%

Source: prepared from the field study, Excel ٢٠١٧

Can be seen from Table (٤.٣) The majority of the study sample were females, with numbered ١٠١ individuals by (٥١,٥٪), while the number of males in the sample (٩٥) by individuals (٤٨,٥٪).

٤,٥. Qualification:

Table (٤,٤) and Graph (٤.٤) frequency distribution to members of the study sample according qualification variable.

Table (٤،٤)

qualification	Frequency	percentage
M.D.	١٠	٥,١٪
Master	١٣	٦,٦٪
Bachelor	١٤٨	٧٥,٥٪
Diploma	٢٥	١٢,٨٪
Total	١٩٦	١٠٠٪

Source: prepared from the field study ٢٠١٧

Graph (٤.٤)
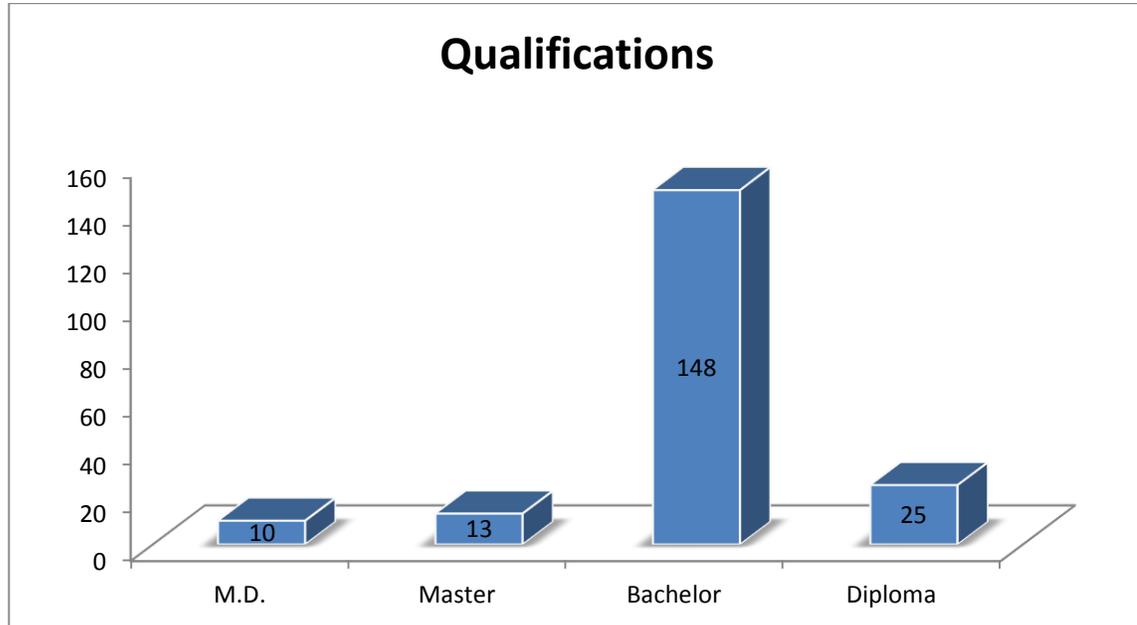
Source: prepared from the field study page, Excel ٢٠١٧

Clear the researcher through the table (٤،٤) and Graph(٤.٤) that The majority of the study sample (Bachelor) as numbered in the sample (١٤٨) prorate (٧٥,٥٪), while the number of individuals who are (Diploma) (٢٥) prorate (١٢,٨٪).

٤،٦. -Nationality:

Table (٦) frequency distribution to members of the study sample according to the nationality variable

Table (٤،٥)

Nationality	Frequency	percentage
Sudanese	١٩٤	٩٩٪
Yemen	١	٠،٥٪
South Sudan	١	٠،٥٪
Total	١٩٦	١٠٠٪

Source: prepared from the field study ٢٠١٧

table (٤،٥) that the majority of the study sample are (Sudanese) where numbered ١٩٤ individuals by (٩٩٪), followed by those whose nationality are (Yemen & South Sudan) where the number reached in the sample (١) per country prorate (١٪),

٤،٧. Hypothesis of Study:

٤،٧،١. The first sub Hypothesis

- (To assess the awareness of the medical staff about quality management in Sharg Alneel Hospital):

Descriptive Analysis of the Hypothesis The frequency and mean distribution of the axis expressions is calculated to determine the views of the study sample on each statement and then the combined expressions and the standard deviation. The homogeneity in the answers, as in the following table:

Table (٤،٦)

The frequency distribution of the responses of the individuals of the study sample on the expressions of the first axis

Question		Frequency and ratio%		
		YES	NO	I DON'T KNOW
١	Are you aware of the meaning of Quality management?	١٣٦ ٦٩,٤٪	٣٧ ١٨,٩٪	٢٣ ١١,٧٪
٢	Do you think that quality management is only for medical devices and equipment?	٣٥ ١٧,٩٪	١٤١ ٧١,٩٪	٢٠ ١٠,٢٪
٣	Do you think quality management can improve medical services?	١٨٠ ٩١,٨٪	٦ ٣,١٪	١٠ ٥,١٪
٤	Do you think patients will benefit from quality management if implemented in medical services?	١٧١ ٨٧,٢٪	١٣ ٦,٦٪	١٢ ٦,١٪
٥	Is there any difference between quality control, quality assurance and total quality management?	١٢٠ ٦١,٢٪	٢١ ١٠,٧٪	٥٥ ٢٨,١٪
٦	Do you agree that quality management can help with the proper utilization of resources?	١٦٧ ٨٥,٢٪	٨ ٤,١٪	٢١ ١٠,٧٪
٧	Do you think quality managementcan be implemented in your hospital?	١٤٠ ٧١,٤٪	٢٤ ١٢,٢٪	٣٢ ١٦,٣٪
٨	Do you agree with the following definition of total quality management"it is an…etc?	١٢٣ ٦٢,٨٪	٢٥ ١٢,٨٪	٤٨ ٢٤,٥٪
٩	Are you aware of the term''Clinical Audit''?	٨٦ ٤٣,٩٪	٦٥ ٣٣,٢٪	٤٥ ٢٣٪

Source: Prepared from the field study, ٢٠١٧

٤.٧.١.١.   **Test the first sub hypothesis**

The sample of the study was surveyed to find their opinion on a number of variables shown in Table (٧) by answering the terms related to this hypothesis. The weighted mean (answer force) and the standard deviations of the responses of the sample were calculated on each term of the hypothesis. Following:

Table (٤.٧)

The results of the first sub hypothesis test

	Question	standard deviation	P. value of Chi Square	Median	Class
١	Q١	٠,٦٩٤	٠,٠٠٠	١	Yes
٢	Q٢	٠,٥٢٦	٠,٠٠٠	٢	No
٣	Q٣	٠,٤٦٧	٠,٠٠٠	١	Yes
٤	Q٤	٠,٥٢٦	٠,٠٠٠	١	Yes
٥	Q٥	٠,٨٨٧	٠,٠٠٠	١	Yes
٦	Q٦	٠,٦٣٧	٠,٠٠٠	١	Yes
٧	Q٧	٠,٧٦٠	٠,٠٠٠	١	Yes
٨	Q٨	٠,٨٥٤	٠,٠٠٠	١	Yes
٩	Q١٠	٠,٧٩٢	٠,٠٠٢	٢	No
	All Questions	٠,٧٤٤	٠,٠٠٠	١	Yes

Source: Prepared from the field study, ٢٠١٧

From Table (٤.٧), it has been found that:

١ - The mathematical averages of the responses of the individuals of the study sample on the first hypotheses ranged between (١.١٩–١.٨٠). These averages are mostly very close to

weight (١). This means that the majority of the study sample says Yes with the first hypothesis.

٢-The values of the standard deviation of the responses to the hypothesis terms ranged between (٠,٥٢–٠,٨٥percent). These values indicate that the respondents' responses to these paragraphs are highly homogeneous, that is, they are very much in agreement with them.

٣- The results in Table (٤,٧) mean that all respondents agree to accept the hypothesis, although there are statistically significant differences between the responses of the sample members that can be determined by applying a square selection to indicate the differences between the answers to each hypothesis.

The above table indicates that the value of the square assigned to the difference between the answers of the different subjects on the first hypothesis was (٠,٠٠٠)and this value is less than (٠,٠٥). This indicates that there are statistically significant differences between the responses and those who say yes.

٤,٧,٢. **The second sub Hypothesis**
(Determine the method needed to increase the awareness of quality management in Sharq Alneel Hospital).

Descriptive Analysis of the Hypotheses of the Hypothesis The frequency and mean distribution of the axis expressions is calculated to determine the views of the study sample on each statement and then the combined expressions and the standard deviation. The homogeneity in the answers, as in the following table:

Table (٤,٨)

The frequency distribution of the responses of the individuals of the study sample on the expressions of the second axis

	Question	Frequency and ratio%		
		YES	NO	I DON'T KNOW
١٠	Do you think that medical staff should be involved in the quality management program?	١٦٦ ٨٤,٧٪	٨ ٤,١٪	٢٢ ١١,٢٪
١١	Do you think benefit from a quality management orientation program?	١٦٢ ٨٢,٧٪	٢٠ ١٠,٢٪	١٤ ٧,١٪

١٢	If you were selected to participate in the quality program team would you do so?	١٥٤ ٧٨,٦٪	١٩ ٩,٧٪	٢٣ ١١,٧٪
١٣	Do you think that quality management is an overload word for medical staff?	٥٥ ٢٨,١٪	١١٢ ٥٧,١٪	٢٩ ١٤,٨٪
١٤	Have you participated in any quality management activities before?	٦١ ٣١,١٪	١٢٢ ٦٢,٢٪	١٣ ٦,٦٪

Source: Prepared from the field study, ٢٠١٧

٤,٧,٣. **Test the second sub hypothesis**

The sample of the study was surveyed to find their opinion on a number of variables shown in Table (٤,٨) by answering the terms related to this hypothesis. The weighted mean (answer force) and the standard deviations of the responses of the sample were calculated on each term of the hypothesis. Following:

Table (٤.٩)

The results of the second sub hypothesis test

	Question	Standard deviation	P. value of Chi Square	Median	Class
١	Q٩	٠,٦٤٩	٠,٠٠٠	١	Yes
٢	Q١١	٠,٥٧٤	٠,٠٠٠	١	Yes
٣	Q١٢	٠,٦٤٣	٠,٠٠٠	٢	No
٤	Q١٣	٠,٥٦٥	٠,٠٠٠	٢	No
٥	Q١٦	١,١٧٨	٠,٠٠٠	١	Yes
	All phrases	٠,٦٧٦	٠,٠٠٠	١	Yes

Source: prepared from the field study ٢٠١٧

From Table (٤،٩), it has been found that:

٤،٧،٣،١. From the table above it is clear that all the probabilistic values of the Chi square test were less than(٠،٠٥) , This means that there are statistically significant differences between the responses , It is clear from the results of the median values that the majority of the study sample say Yes to the second hypothesis.

٤،٧،٣،٢. The values of the standard deviation of the responses to the hypothesis terms ranged between (٠،٥٧ - ١،١٧٪). These values indicate that the respondents' responses to these paragraphs are highly homogeneous, that is, they are very much in agreement with them.

٤،٧،٣،٣. The results in Table (٤،٩) mean that all respondents agree to accept the hypothesis, although there are statistically significant differences between the responses of the sample members that can be determined by applying a square selection to indicate the differences between the answers to each hypothesis.

The above table indicates that the value of the square assigned to the difference between the answers of the different subjects on the second hypothesis was (٠،٠٠٠) and this value is less than ٠،٠٥. This indicates that there are statistically significant differences between the responses and those who say Yes.

Q١٤

If yes , please specify where?

Table (٤،١٠)

options	Frequency	percentage
IN SUDAN	٤٩	٧٥،٤%
IN THE GULF	٨	١٢،٣%
IN THE WEST	٢	٣،١%
IN OTHER	٦	٩،٢%
Total	٦٥	١٠٠٪

Source: prepared from the field study ٢٠١٧

Q.١٥

What do you think the best way to deliver quality management training?:

Table (٤.١١)

Best way	Frequency	percentage
WORKSHOPS	٨٥	٤٣,٤%
DURING WORK	٥٨	٢٩,٦%
SEMINARS	٢٢	١١,٢%
LECTURES	٢٣	١١,٧%
I DON'T KNOW	٨	٤,١%
Total	١٩٦	١٠٠٪

Source: prepared from the field study ٢٠١٧

Graph (٤.٥)
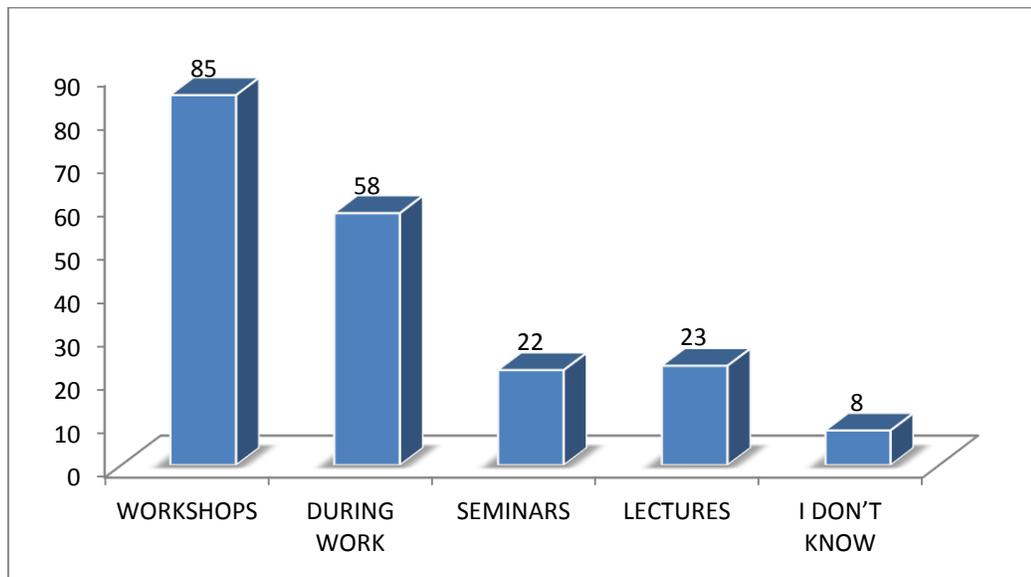
Source: prepared by the researcher from the field study page, Excel ٢٠١٧

It's clear in table (١١) and Graph(٥) that The majority of the study sample say that the best way to deliver quality management training is (Workshops) as numbered in the

sample (٨٥) prorate (٤٣,٤٪), while the number of individuals who say during work are (during work) (٥٨) prorate (٢٩,٦٪).

٤,٧,٤. **Main hypothesis testing**

(The awareness of the medical staff determines the attitude towards quality management).

The sample of the study was surveyed to find their opinion on a number of variables shown in Table (٤.١٢) by answering the terms related to this hypothesis. The Chi square test was used to find the differences between the responses, and then the median and standard deviations of the sample responses were extracted on each of the hypotheses. Following:

The results of the Main hypothesis test

Table (٤,١٢)

	Phrase	standard deviation	P.value of Chi Square	Median	Class
	All phrases	٠,٨٥٠	٠,٠٠٠	١	Yes

Source: prepared from the field study ٢٠١٧

From Table (١٢), it has been found that:

١ - From the table above it is clear that all the probabilistic values of the Chi square test were less than(٠,٠٥) , This means that there are statistically significant differences between the responses , It is clear from the results of the median values that the majority of the study sample say Yes to the basic hypothesis.

٢-The values of the standard deviation of the responses to the hypothesis terms ranged between (٠,٤٦ – ١,١٧٪). These values indicate that the respondents' responses to these paragraphs are highly homogeneous, that is, they are very much in agreement with them.

٣- The results in Table (١٢) mean that all respondents agree to accept the hypothesis, although there are statistically significant differences between the responses of the

sample members that can be determined by applying a square selection to indicate the differences between the answers to each hypothesis.

The above table indicates that the value of the square assigned to the difference between the answers of the different subjects on the third hypothesis was (٠,٠٠٠) and this value is less than ٠,٠٥. This indicates that there are statistically significant differences between the responses and those who Say Yes.

٤,٧,٥. **Linking :**

٤,٧,٥,١.   The link between the extent of the awareness of the respondents to the quality management and the attitude of the medical staff's situation on quality management:

Table (٤.١٣)

		attitude of quality management			Total
		yes	No	i don't know	
awareness	Yes	٤١٤	٢١٩	٦٢	٦٩٥
	No	١١٥	٢٩	٢٢	١٦٦
	i don't know	٦٩	٣٣	١٧	١١٩
Total		٥٩٨	٢٨١	١٠١	٩٨٠

Source: prepared from the field study ٢٠١٧

It is clear in the table above that ٤٢٪ of the medical staff knows the correct quality management as well as their attitude of quality management is true, also noted from the table that this percentage decreases with less knowledge or attitude of quality management.

٤,٧,٥,٢.   By linking the awareness of quality management and the place of participation in quality management activity , and the results were in the following table:

Table (٤.١٤)

	Place of quality management activities	Total

		IN SUDAN	IN THE GULF	IN THE WEST	IN OTHER	
knowledge	yes	٣٧	٧	١	٥	٥٠
	No	٦	١	١	١	٩
	i don't know	٦	٠	٠	٠	٦
Total		٤٩	٨	٢	٦	٦٥

Source: prepared from the field study ٢٠١٧

It has been found that ٧٤٪ of those who know the correct quality management have received quality management activity within Sudan , while ١٤٪ participated in activities in the Gulf.

٤،٧،٥،٣. The link between place of participation in quality management activity and the attitude of the medical staff's on quality management:

Table (٤.١٥)

|		Place of quality management activities				Total
		IN SUDAN	IN THE GULF	IN THE WEST	IN OTHER	
attitude of quality management	yes	٤٦	٧	٢	٥	٦٠
	No	٢	٠	٠	٠	٢
	i don't know	١	١	٠	١	٣
Total		٤٩	٨	٢	٦	٦٥

Source: prepared from the field study ٢٠١٧

Found that ٧٦،٧٪ of those who have true attitude on quality management have received quality management activity within Sudan, while ١١% participated in activities in the Gulf and ٨،٣٪ participated in activities in other places.

The link between job title and level of the awareness of the respondents' to the quality management:

Table (٤.١٦)

		awareness			Total
		yes	No	i don,t know	
job title	pharmacist	٥	٠	٠	٥
	nutritionist	٧	٠	٠	٧
	nurses	٤٧	١٣	٩	٦٩
	general practitioner	٢	٢	٠	٤
	consultant	١١	٤	٠	١٥
	radiology	٧	٠	١	٨
	Medical engineer	١٤	٠	١	١٥
	medical director	٢٠	٨	٦	٣٤
	laboratory technician	٤	٤	٠	٨
	anesthesiologist	٢	٣	٣	٨
	registrar	١١	٣	٢	١٦
	physiotherapist	٦	٠	١	٧
Total		١٣٦	٣٧	٢٣	١٩٦

The following graph shows the percentage of respondents' awareness of quality management program according to their job title:

Graph (٤.٦)
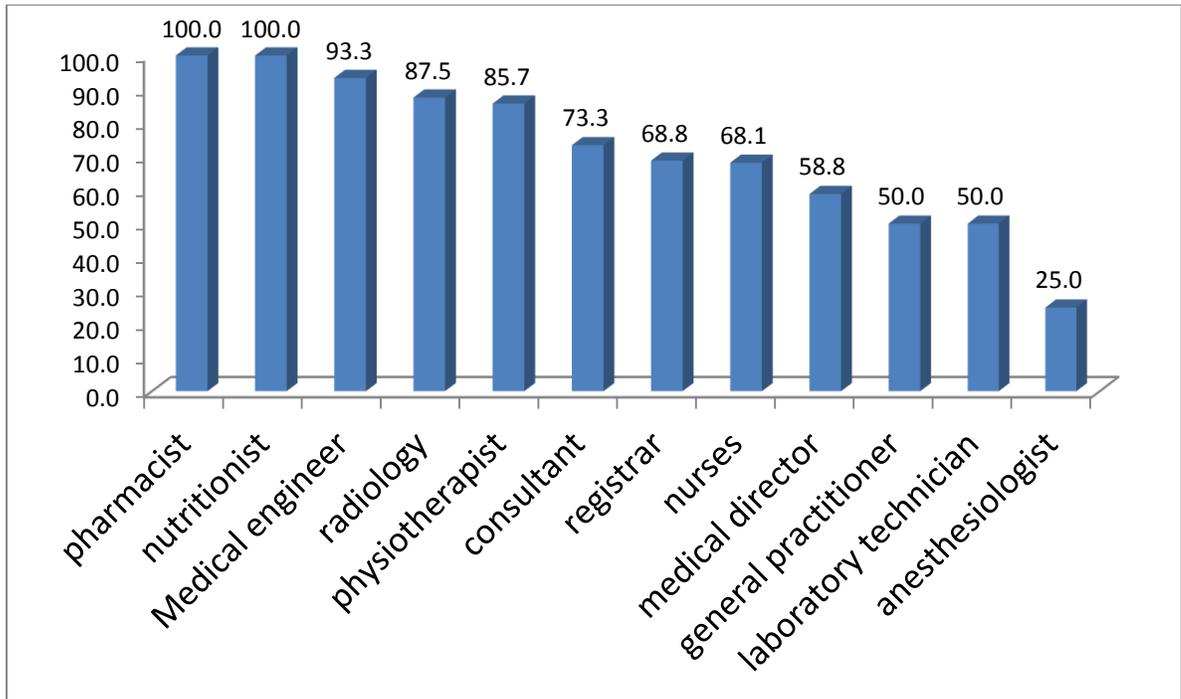
٤,٧,٥,٥.   **The link between job title and the attitude of the medical staff's situation on total quality management:**

Table (٤.١٧)

		attitude of quality management			Total
		yes	No	i don,t know	
job title	pharmacist	٥	٠	٠	٥
	nutritionist	٧	٠	٠	٧
	nurses	٥٤	٣	١٢	٦٩
	general practitioner	٤	٠	٠	٤
	consultant	١٣	٠	٢	١٥
	radiology	٦	١	١	٨
	Medical engineer	١٣	٢	٠	١٥
	medical director	٢٨	٢	٤	٣٤
	laboratory technician	٧	٠	١	٨
	anethesiologist	٧	٠	١	٨
	registrar	١٦	٠	٠	١٦
	physiotherapist	٦	٠	١	٧
Total		١٦٦	٨	٢٢	١٩٦

٤,٧,٥,٦.   **The following graph shows the percentage of respondents' the attitude
of the medical staff's situation on total quality management according to their
job title:**

Graph (٤.٧)
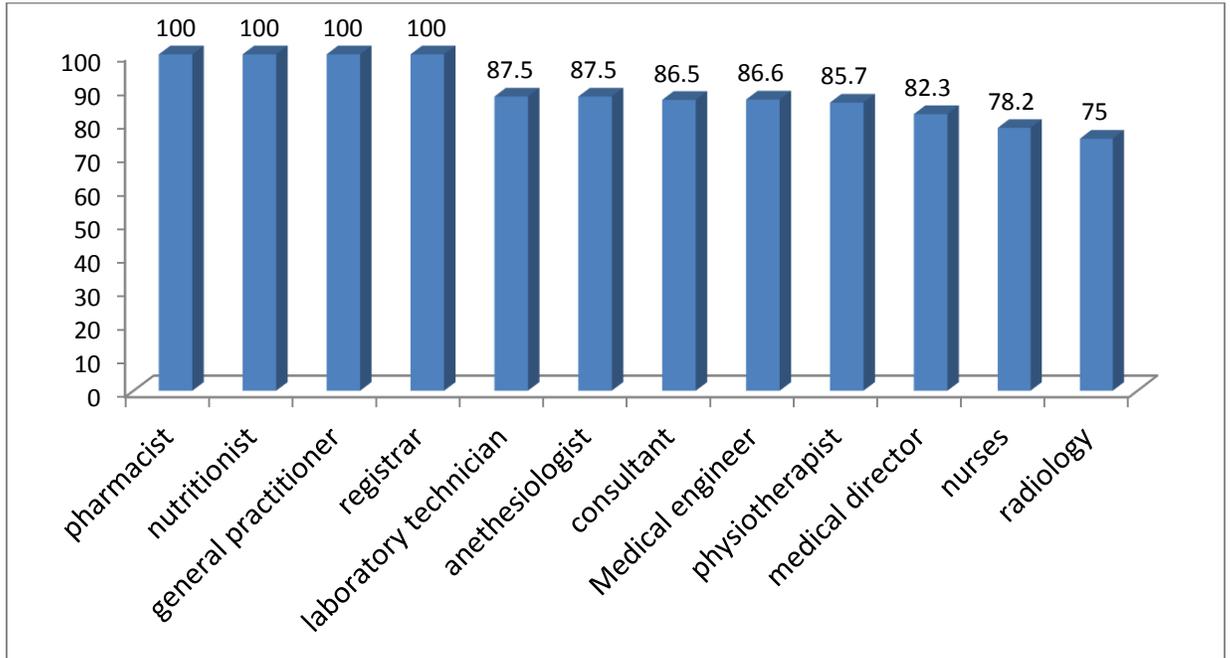
CHAPTER FIVE

٥. ١ Discussion

    Quality management in health care is increasingly became an important element and a mandatory tool in the service as it granted the best outcome because health care deal with a very sensitive issue.

This study reflects the perception of medical staff in Sharg Alneel hospital as it determine the awareness and attitude, as study in quality management it was commenced in a very early stage of quality implementation as it may reflect the willingness of the staff to

support quality in the hospital in comparison all similar study was done in a hospitals were quality is very advanced and already established before long time.

This discussion will examine the key result of the study with ٢٢٠ questionnaires were distributed among the medical staff in Sharg Aneel hospital, ١٩٦ responded.

Concerning the awareness of quality management ٦٩٬٤ % of the study population are aware of the meaning of quality management and this give the positive clue to the awareness level among the medical staff in comparison with study done in Saudi Arabia Al Qassim hospitals in the year ٢٠٠٢ it shows awareness of ٨٥٪ among the physicians but it was in a well-established quality environment for more than five years and the study was done in a transitional phase between quality assurance and quality management. (Pak J Med Sci.٢٠٠٢)

As knowledge of differences between quality control and quality assurance and total Quality management ٦١٬٢٪ know the difference while ٣٨٬٨٪ don't know.

٨٧٪ of Sharg Alneel medical staff thinks that the hospital's patients will benefit from Quality management implementation. On the other hand ٣٣٬٢٪ of the study said that they are not aware of clinical audit which is one of the basic elements and a very early developed tool of health care quality. From the above statistics the general impression tent to be positive towards the knowledge of the medical staff about quality management because in Al Qassim study ٤٥٪ of the population was familiar with the term of Clinical Audit putting the circumstances of each study this comparison added to the positivity of Sharq Alneel result in this area.

In relation to attitude ٨٤٬٧٪ thinks that medical staff should be involved in quality management program which indicate a very strong positive attitude to quality management. In addition to that ٧٨٬٦٪ are willing to be involved in quality management activity, in the contrary in Al Qassim study ٨٧% of the physicians said that quality is the work of the quality staff only because they were paid to do so.(Pak J Med Sci.٢٠٠٢)

On the other hand ٥٧٬١٪ thinks that quality management will be an over load to the medical staff work, in spite that only ٣١٬١٪ have participated in quality management activity before and this gives the impression lack of participation in quality activity affect the attitude towards it. Also this is the same case as in Al Qassim study ٨٢٪ said quality is an overload to the physicians.

As response to the preferred way of delivering quality management training ٣٤٬٤٪ preferred workshop as a way of training followed ٢٩٬٦٪ during work training (on job) that reflects the majority tends to be trained interactively. The remaining methods ١١٬٢٪ & ١١٬٧٪ are for lectures and seminars respectively.

٥,٢.Conclusion:

This study concludes that as propose in the main hypothesis awareness determine attitude toward quality management in a positive way as Sharg Alneel medical staff have a good knowledge and awareness about quality management with willingness to participate in quality activity in spite of lack of quality practice , although the lack of practice affected the attitude in slightly negative way. Interactive methods of training are the preferred way to deliver quality training.

APPENDIX

٥,٣.**Recommendation:**

٥,٣,١. Concerning the results shown above Sharg Alneel hospital should start implementing or adopting quality management program in order to get use of the willingness of its staff to participate in quality program.

٥,٣,٢. As implementation of quality can affect the attitude it's recommended to start quality implementation as soon as possible to twin the knowledge with practice.

٥,٣,٣. For the filling of gab of training interactive method is recommended than passive methods concerning quality training.

٥,٣,٤. Hospital governance bodies should have a mandatory quality management programs for health care services in order to positively affect the attitude of the medical staff.

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Questionnaire

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Master of Total Quality Management and Excellence
Questioner for the Perception of Quality Management Among Medical Staff
in Sharg Alneel Hospital

١. Job title: _____
٢. Age: _____
٣. Gender: _____
٤. Qualifications: _____
٥. Nationality: _____

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١. Are you aware of the meaning of Quality management?

☐ Yes ☐ No ☐ I don't know

٢. Do you think that quality management is just for medical devices and equipment?

☐ Yes ☐ No ☐ I don't know

٣. Do you think quality management can make improvement in the medical services?

☐ Yes ☐ No ☐ I don't know

٤. Do you think the patients will benefit from the quality management if implemented in medical services?

☐ Yes ☐ No ☐ I don't know

٥. Is there any deference between quality control, quality assurance and total quality management?

☐ Yes ☐ No ☐ I don't know

٦. Do you agree that quality management help in proper utilization of resources?

☐ Yes ☐ No ☐ I don't know

٧. Do you think quality management can be implemented in your hospital?

☐ Yes ☐ No ☐ I don't know

٨. Are you aware of the definition of total quality management "it is an organization-wide management strategy / philosophy / program aiming at embedding awareness of quality

among all staff and at involving every process of the organization in a cycle of continuous improvement with the aim of satisfying the customers' needs and expectations"?

☐ Yes   ☐ No   ☐ I don't know

٩. Do you think as a medical staff you should be involved in quality management program?

☐ Yes   ☐ No   ☐ I don't know

١٠. Are you aware of "Clinical Audit" term?

☐ Yes   ☐ No   ☐ I don't know

١١. Do you think you can benefit from quality management orientation?

☐ Yes   ☐ No   ☐ I don't know

١٢. Do you think quality management work is an overload to the medical staff?

☐ Yes   ☐ No   ☐ I don't know

١٣. Did you participate in any quality management activity before?

☐ Yes   ☐ No   ☐ I don't know

١٤. If yes specify where?

☐ In Sudan   ☐ In the Gulf   ☐ In the West   ☐ In others

١٥. What do you think the best way of quality management training delivery?

☐ Workshops   ☐ During work Seminars   ☐ lectures   ☐ I don't know

١٦. If you are selected to participate in quality program team will you agree?

☐ Yes   ☐ No   ☐ I don't know