

# The Impact of Implementing Quality in (The Health Informatics and Laboratory Departments) at King Fahd Armed Forces Hospital in Jeddah

Waleed.O.Al-Gregri<sup>1</sup>, Turki.A.Alasiri<sup>2</sup>, Modhi.M.Albalawi<sup>3</sup>,  
Sultan.S.Alhawiti<sup>4</sup>, Hamza.J.Qasem<sup>5</sup>, Ahmed.A.Alhazmi<sup>6</sup>, Alaa.H.Algrigri<sup>6</sup>,  
Abdulmajeed.O.Alansari<sup>6</sup>, Nouf.A.Sherbini<sup>7</sup>, Sondos.K.Eskande<sup>r8</sup>

Laboratory supply officer at King Fahad armed Forces hospital in Jeddah<sup>1</sup>  
Assistant of medical laboratory director at King Salman armed forces hospital at  
northwest region<sup>2</sup>

Infection control practitioner King Salman armed forces hospital at northwest region<sup>3</sup>  
Director of Medical laboratory King Salman armed forces hospital at northwest region<sup>4</sup>  
Manger of the Health Informatics department at King Fahd Armed Forces Hospital in  
Jeddah<sup>5</sup>

Health Informatics Technician at King Fahd Armed Forces Hospital in Jeddah<sup>6</sup>  
Director of the Quality Development Division at King Fahd Armed Forces Hospital in  
Jeddah<sup>7</sup>

Laboratory specialist at King Fahd Armed Forces Hospital in Jeddah<sup>8</sup>

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## Abstract

A questionnaire was prepared via Google Drive and distributed to residents aged 25 years -55 years old men and women in the western region and Tabuk. As for the questionnaire, it was distributed via the social networking program (WhatsApp) 600 questionnaires were distributed, and 550 responses were obtained via email to the principal investigator.

**Keywords:** the impact of implementing quality, in the departments (medical records and laboratory), of the Armed Forces Hospital in Jeddah.

## 1. Introduction

Quality is a complex concept. Thus, its evaluation should be done at different levels of care and from different perspectives of the key stakeholders. Evaluating performance of health care organizations from the stakeholders' perspective is therefore imperative and in specific, nurses' perceptions on quality of care have often been considered an indicative evaluation of the quality of health care provided by these organizations <sup>(1)</sup>. The measurement of healthcare quality is one of the main challenges that face healthcare organizations these days, both politically and in the public eye. Healthcare providers struggle to achieve the quality of care expected by their

consumers. since quality is deemed a key factor in the delivery of patient care initiatives to assess the quality of care delivered to patients have become a worldwide Endeavour. Healthcare quality can be done in different ways, including self-assessment by the healthcare institution, benchmarking between institutions, and external evaluation by an independent organization <sup>(2)</sup>. King Fahd Armed Forces Hospital (KFAFH) is a Saudi military hospital, with a capacity of 530 beds, in addition to five dispensaries. It is located on the western coast of the Red Sea in the city of Jeddah. The hospital provides a wide range of primary, secondary and tertiary medical services to members of the Saudi Armed Forces and their families. The Heart Center, located within the main hospital, is the only cardiac surgery facility in the Western Region. It is part of a network of healthcare facilities that is directly managed by the General Administration of Medical Services of the Armed Forces <sup>(3)</sup>. King Fahd Armed Forces Hospital in Jeddah obtained Joint Commission International (JCI) accreditation in December 2021 until December 2024, after a field visit from the International Committee. JCI accreditation and the certificates it awards are considered an international accreditation to certify controls and best practices in the field of quality and patient safety around the world. <sup>(4)</sup>

## **2. Material and Methods:**

The study began in (the cities of Jeddah and Tabuk in the Kingdom of Saudi Arabia), and the study ended with writing the data collection in May 2024. The researcher used descriptive analysis, an approach that uses quantitative or qualitative description of the social phenomenon (the impact of implementing quality in (the health informatics and laboratory departments) at King Fahd Armed Forces Hospital in Jeddah) and the variable. The independent variable (the percentage of quality implementation in King Fahd Armed Forces Hospital in general) and the dependent variable (the percentage of quality implementation in the health informatics and laboratory departments of King Fahd Armed Forces Hospital in general). This type of study is characterized by analysis, reason, objectivity, and reality. It is also concerned with individuals and societies, as it studies the variables and their impact on the health of the individual, society, For demographic variables such as age, gender, nationality, and marital status. Status and occupation <sup>(5)</sup>, and use the excel 2010 Office suite pie chart to sort the results <sup>(6)</sup>, and the questionnaire was only answered electronically, because the questionnaire consists of fourteen questions, all of which are closed-ended.

## **3. Results and discussion:**

The percentage of approval to participate in the questionnaire was 98.1%, and the percentage of rejection was 1.4%. The percentage of male and female participants according to their age was as follows: 25-34 years of age, its percentage was 17.8%, of those aged 35-44 years, it was 46.6%, and of those aged 45-55 years, it was 35.6%. As for their professions, they were as follows: students 3.4%, workers 1%, government male and female employees 64.4%, private sector male and female employees 8%, self-employed 1%, male and female retirees and housewives 11%. As for educational status, it was: primary 0.5%, Intermediate 2%, secondary

school 9.6%, university male and female 67.1%, master’s holders 7%, male and female holders 9% hold doctoral degrees. Male and female health diploma holders: 1.5%, male and female secondary diploma holders: 3%. As for the nationality of the participants, male and female, the percentage of males was 53.4%, the percentage of females was 46.6%, their nationalities were 95.9% Saudi men and women, and 4.1% were non-Saudis and men. The male and female participants’ response to the questionnaire questions was as follows: First question: Do information technology and electronic medical records systems enhance coordination between the various medical teams in the departments of King Fahd Armed Forces Hospital? Yes 79.5%, no 1.3%, and I don’t know 19.2%. The second question: Does the quality management system help implement compliance with health standards and regulations for the hospital’s laboratory and medical tests? Yes, 84.9%, No, 0%, and I don’t know, 15.1%. Question three: Using sound technical methods contributes to improving trust and credibility between health staff and patients in the hospital? Yes, 93.1%, No, 1%, and I don’t know, 5.9%. Question four: Is the laboratory at King Fahd Armed Forces Hospital sterilized before and after work? Yes 49.3%. Question five: Does King Fahd Armed Forces Hospital have an effective and active quality management in the health field? Yes, 72.6%, No, 4.2%, and I don’t know, 23.3%. Question Six: Installing medical records systems aims primarily to improve the quality of health care provided to the patient? Yes 91.8%, no 2%, and I don’t know 23.3%. Question Seven: Are all employees at King Fahd Armed Forces Hospital committed to working hours? Yes, 49.3%, No, 9.6%, and I don’t know, 41.1 %. Question eight: Is it easy to transfer patients’ health information electronically between other hospital departments? Yes, 63%, No, 9.6%, and I don’t know, 27.4%. Question 9: Is there a system that helps in retrieving back-up data for patients in the medical records department in the event of technical malfunctions? Yes, 6.2%, No, 2.7%, and I don’t know, 41.1%. Question ten: Is there a quality guide for work that is implemented and implemented at King Fahd Armed Forces Hospital? Yes, 8.9%, No, 5.5%, and I don’t know, 35.6%.Question eleven: Is there a written, approved infection control system that is in effect in the laboratory department at King Fahd Armed Forces Hospital? Yes, 70.8%, No, 1.4%, and I don’t know, 27.8%. Question 12: Is there an early warning system in case of natural disasters in place at King Fahd Armed Forces Hospital? Yes 76.7%, No 0%, and I don’t know 23.3%.Question thirteen: Are there all the necessary medical supplies, such as (gloves, face mask, and head cover --- etc.) available in the laboratory department at King Fahd Armed Forces Hospital? Yes, 84.7%, No, 1.4%, and I don’t know, 13.9%. The last question: Does King Fahd Armed Forces Hospital have a quality mark? Yes 69.9%, No 0%, and I don’t know 30.1%.( figure.no.1)

Figure.no.1: Ratio of males to females at King Fahd Armed Forces Hospital

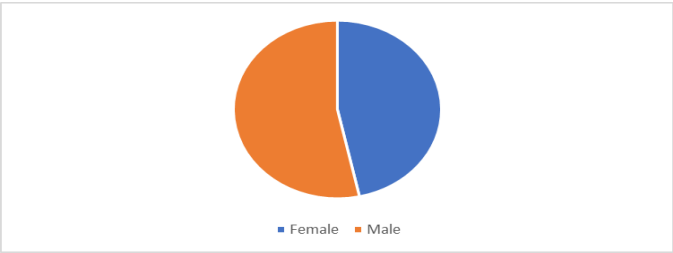


Table.1: the impact of implementing quality in (the medical records and laboratory departments) at King Fahd Armed Forces Hospital in Jeddah

the impact of implementing quality in (the medical records and laboratory departments) at King Fahd Armed Forces Hospital in Jeddah	Yes	No	I don't know
Does King Fahd Armed Forces Hospital have an effective and active quality management in the health field?	72.6%	4.2%	23.3%
Is it easy to transfer patients' health information electronically between other hospital departments?	63%	9.6%	27.4%
Are there all the necessary medical supplies, such as (gloves, face mask, and head cover --- etc.) available in the laboratory department at King Fahd Armed Forces Hospital	84.7%	1.4%	13.9%
Does King Fahd Armed Forces Hospital have a quality mark?	69.9%	0%	30.1%

#### 4. Conclusion:

According to the opinions of the participants and participants in the questionnaire, King Fahd Armed Forces Hospital has an effective and active quality management rate in the field with a rate of 72.6%, it is easy to transfer patients' health information electronically between other hospital departments (63%). All necessary medical supplies such as (gloves, face mask, head cover, etc.) are available in the Laboratory Department at King Fahd Armed Forces Hospital 84.7%, King Fahd Armed Forces Hospital has a quality mark of 69.9%. it concluded that King Fahd Armed Forces Hospital in Jeddah has obtained JCI standards in 2021. Therefore, all departments, especially the health informatics and laboratory departments, apply quality.

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#### WORKS CITED

- McGlynn, E., (2019). Six challenges in measuring the quality of health care. *Health Affairs*, 16(3), pp (7-21).  
 Halasa, Y., Zeng, W., Chappy, E., & Shepard, D. (2020): Value and impact of international hospital accreditation: A case study from Jordan. *Eastern Mediterranean Health Journal*, 21(2), pp (90-99).  
[https://ar.wikipedia.org/wiki/King\\_Fahd\\_Armed\\_Forces\\_Hospital](https://ar.wikipedia.org/wiki/King_Fahd_Armed_Forces_Hospital) 8-10-2024.1:59pm  
<https://kfahf.med.sa/JCIAR.html> .8-10-2014 .1:59 pm  
 Alserahy, Hassan Awad, et al (2008), The thinking and scientific research, Scientific Publishing Center, King Abdul-Aziz University in Jeddah, the first edition  
 Al Zoghbi, Muhammad and AlTalvah, Abas (2000), Statistical system understanding and analysis of statistical data, first edition, Jordon- Amman.