

The Assessment of Patients Satisfaction with Healthcare Services Provided in the Hawtat Bani Tamim During the COVID-19 Pandemic*

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Abstract

This study aims to evaluate patients' satisfaction with healthcare services in Hawtat Bani Tamim Governorate during the spread of coronavirus. The importance of this study stems from the fact that Covid-19 is challenging countries all over the world. The study adopted a questionnaire for collecting the data. The sample size reached 231 members. The study applied descriptive statistics and inferential statistical methods to obtain the result of the study. The analysis of the data revealed that most of the participants are satisfied with the healthcare services in hospitals and health centers during the Corona pandemic, Health precautions and distancing measures were applied appropriately, Vaccination against corona was available in health centers and easy to access, and rapid response of health care service providers to patients' requests. The participant's opinions showed that the application of Mawid is a suitable method to access healthcare services during Corona, the application is more efficient in providing the required healthcare services and facilitating their access to healthcare services. In addition, patient satisfaction with the "My health" application provided fast and convenient services during the Corona pandemic and provided medical consultations easily.

Keywords: Assessment, Patient Satisfaction, Healthcare Service, Hospital, COVID-19

JEL Classification Code: M40, M41, M42

1. Introduction

Recently there was an attempt to find a clear definition of the term patient satisfaction in the field of health. In A. Donabedian's model, patient satisfaction is concerning the measurement of opinions provided by patients (Al-Abri & Al-Balushi, 2014; Jenkinson et al., 2002). Jenkinson et al.

(2002) pointed out that patient satisfaction seems to mainly reflect the patients' attitudes toward care and the different ways of caring. According to (Tanniru & Khuntia, 2017), patient satisfaction comprises perception and emotions of the healthcare services introduced to them. Some researchers specify patient satisfaction as compliance with the patient's expectations concerning their images of perfect healthcare with what is provided (Maconko et al., 2016; Kumar et al., 2020). The greater the compliance with the patient's prior expectations, the higher the satisfaction, and thus the fewer problems in the healthcare system to meeting special needs, and the fewer restrictions on rights. Patient satisfaction is the expected outcome and is considered one of the most important quality measures and essential for forecasting the behavior of patients (Otani et al., 2021; Korneta et al., 2021).

There were different countries that faced challenges in providing healthcare, including BRICS nations (Brazil, Russia, India, China, and South Africa), G7 nations (Canada, France, Germany, Italy, Japan, the UK, and the USA), and low- and middle-income countries. So, they have significantly increased medical spending with a focus on increasing healthcare efficiency and promoting remote technological healthcare (Jakovljevic et al., 2019, 2002;

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Jakovljevic & Getzen, 2016). Russia implements preventive and sanitary measures, with a lot of professional staff employed in healthcare. Sanitary quarantine centers have been constructed in public spaces to stop the dissemination of the virus (Reshetnikov et al., 2020). In Saudi Arabia, since the start of the pandemic, there have been 190 823 confirmed cases, including 1649 deaths (WHO, 2022). The country has taken different preventive measures that were applauded by many, such as restricting travel, implementing curfews, and canceling the Hajj pilgrimage (Ebrahim & Memish, 2020).

This is reflected in reducing the number of new cases. In addition, providing free treatment for COVID-19 patients (Times, 2020) increasing the contribution of the private sector in controlling the COVID-19 regulatory process and international pacts on healthcare management are a few of the major initiatives taken to develop the preparedness of the healthcare system (Arab News, 2020). Since the beginning of the outbreak of the epidemic, many countries of the world have used telemedicine to deal with disruptions in services and reduce personal consultations, and one of the most important strategies that have been implemented to manage health care services is to provide health care through information and communication systems and electronic applications (Keshvaridoost et al., 2020). Accordingly, the Kingdom of Saudi Arabia plans to improve digital health care after the Corona pandemic, which includes various aspects such as providing connected medical devices and wearable devices for monitoring and protection, providing health care instructions, telemedicine, and home health robots, using artificial intelligence. In addition to developing patient networks to raise awareness of healthcare to improve digital healthcare (GHE, 2020). This study aims to evaluate the satisfaction of patients with health services during the spread of the Covid-19 pandemic.

The research objectives are as follows:

1. To assess the patient's satisfaction with the healthcare services in Hawtat Bani Tamim governorate during COVID-19.
2. To identify the types of healthcare services that were introduced and verify patient satisfaction with those services in Hawtat Bani Tamim governorate in Saudi Arabia.
3. To illustrate the shortages and obstacles that faced receiving healthcare services during COVID-19

Health care is an essential part of any country in the world, and the Kingdom of Saudi Arabia like other countries of the world, began to deal with the Corona pandemic with great seriousness and unprecedented interest, and this represented in providing comprehensive healthcare to all members of society in an easy and accessible way, including health legislation, patient rights, and responsibilities, and the

health facilities system, as well as those efforts, appeared in The Kingdom is in the daily follow-up from the Ministry of Health, including the precautionary measures that must be taken, the types of vaccines available, as well as health care services during the Hajj. All vaccinations were also linked, and their appointments were booked through the Tawakkalna application, which allowed the recipients of the service to easily obtain the services provided to patients and health instructions. For all the above, the importance of the research is that the Corona pandemic revealed the nature of health systems in the world, as most countries were unable to cope with the large numbers of people infected with the Coronavirus. However, the Kingdom of Saudi Arabia succeeded in dealing with the pandemic, so it was able to provide counseling services, health care, and careful follow-up of patients.

2. Literature Review

Kingdom of Saudi Arabia, the Ministry of Health, and different health authorities started to develop well-studied policies that reduce the spread of the virus and provide healthcare services to patients. The World Health Organization stated the COVID-19 outbreak as a public health threat of international concern in January 2020 (Holshue et al., 2020). The study conducted by Bhattacharjee and Acharya (2020) revealed that there was a relationship between growing public concern and COVID-19 infections. There is increasing concern about the mental health challenges of the general population (Kar et al., 2020). The results of a study explained that it may benefit to identify patients at higher risk for more medical concentration from the start of treatment (Rahman & Sathi, 2020). There are 216 countries are impacted by COVID-19 around the world. Higher-income, Gross Domestic Product (GDP), and investments of countries in health are related to the higher Daily Cumulative Index while higher GDP is connected with fewer deaths (Phannajit et al., 2021). Furthermore, health workers were at higher risk for poor sleep quality (Huang & Zhao, 2020). In the same direction (Alanzi et al., 2022) found that 82.1% of those who used the MAWID application because it is easy and flexible, and more than seventy-five percent reported satisfaction with a high level of the application.

At the beginning of the year 2019, new regulations regarding telemedicine were published in Saudi Arabia, providing an integrated and complete framework for all the staff of clinics, which is overseen by the Saudi Telemedicine Excellence Unit (STUE). The emergence of these regulations gives a good base for setting up teleconsultations via video and is implemented quickly and covers all regions of the Kingdom of Saudi Arabia, thus, which has led to an increase in the use of telemedicine (Alhumud et al., 2020).

Healthcare providers in various hospitals and health centers are required to provide better service in the field, and patient satisfaction is an urgent issue to measure the outcomes of health. A satisfied patient is more likely to develop a deeper, longer-term relationship with their healthcare provider, which leads to improved compliance, continuity of care, and better health outcomes.

The main reasons for the underutilization of health services included inconvenience during the use of telehealth technologies by suppliers and patients (Mann et al., 2020). In terms of telehealth services, the level of patient satisfaction was found to be very high (Triantafillou et al., 2021; Ramaswamy et al., 2020). However, higher patient satisfaction with telehealth services could stem from the fact that there was no need to drive to the appointment, because of the time saved, or that such an appointment could take place, or because the appointment was available at a convenient time.

Several studies of patient satisfaction have shown some troubles in defining the factors of satisfaction that patients desire and how to relate that satisfaction to a particular service (Leonardsen et al., 2020). Satisfaction is important because it can influence the outcome of treatment and a patient’s decision about whether to continue receiving these services (Pinar et al., 2021). Nguyen et al. (2021) revealed that the doctors’ job satisfaction and effective customer orientation improve customer satisfaction and loyalty towards international hospitals in Vietnam. On the other side, Shaddy (2022) found that there is a statistically significant relationship between the three dimensions and customer satisfaction in Saudi e-bank. Lieophairot and Rojniruttikul (2022) showed that the 118 employees’ overall perceptions of their RRSM employers’ motivating factors, human resource management, satisfaction, and loyalty were high.

3. Research Methodology

3.1. Data Source

The study depended on the questionnaire to collect the data. Besides that, secondary data was obtained from sources such as books, previous studies, and official reports about the pandemic from the Ministry of Health in Saudi Arabia.

3.2. Research Tools

An e-questionnaire was constructed to collect the data from the targeted participants, the questionnaire construction is based on scientific steps. The questionnaire covers all the questions of the study variables, verifying the study’s objectives and answering the research questions. Google form was used to lay out the research questions of the electronic questionnaire.

3.3. Sample and Study Population

The study population covered all the people who are living in Hawtat Bani Tamim province in Saudi Arabia. The sample of the study was selected from the study population. The selection of a sample for the study is based on simple random sampling criteria.

3.4. Statistical Procedures

The study applied descriptive statistics, which are represented in percentages, averages, and standard deviations of the data collected from the pooled study sample, as well as inferential statistics. Statistical tests such as *t*-test and *p*-test were also performed for analysis of variance.

4. Results

In this part of the research, we review the results reached after applying descriptive statistics methods that fit the data collected from the study sample. Among those descriptive statistics are percentages, frequency distributions, arithmetic means, and standard deviations. Table 1 showed that the most of respondents were males 179 (77.5%), and 52 (22.5%) were females. According to age, 201 (87%) were at the age of 40 years and less, and 30 (13%) were at age more than 40 years. The frequency distribution of respondents by

Table 1: Sample Members Characteristics

Variables	Frequencies	Percentages
Sex		
Male	179	77.5
Female	52	22.5
Age		
40 and less	201	87
More than 40	30	13
Occupation		
Student	155	67.1
Employees in the government sector	54	23.4
Employees in the private sector	9	3.9
Free job	13	5.6
Education level		
Primary	3	1.3
Secondary	28	12.1
University	178	77.1
Postgraduate	22	9.5

occupation showed that the majority of participants were students 155 (67.1%), 54 (23.4%) were employees in the government sector, 13 (5.6%) had a free job, and 9 (3.9%) working in the private sector. The frequency distribution of sample members' education level revealed that the most of participants 178 (77.1%) had a university education, 28 (12.1%) had secondary education, 22 (9.5%) were postgraduates, and only 3 (1.5%) have primary education.

The participant's viewpoints in relation to satisfaction with healthcare services in hospitals and health centers during the Corona pandemic reflected high levels of satisfaction because the average of phrases ranged between (4.26 and 4.01), as shown in Table 2. This result was followed by an overall average of satisfaction was 4.14 which indicates the majority of the participants they are satisfied with the healthcare services in hospitals and health centers during the Corona pandemic.

Table 3 illustrates the participant's viewpoints related to satisfaction with the use of the (Moayed) application during the Corona pandemic. The results revealed that the average of phrases ranged between (4.27 and 4.08) and the overall average satisfaction was 4.18, which indicates that most of the participants were satisfied with the use of the (Moayed) application during the Corona pandemic. Table 3 showed the participant's opinions in relation to satisfaction with the medical consultation services through the "My Health" application during the Corona pandemic. The results obtained showed that the average of phrases ranged between (4.29 and 4.09) and the overall average satisfaction was 4.17, which indicates that most of the participants were satisfied with the use of the medical consultation services through the "My Health" application during the Corona pandemic. The results in Table 3 illustrate the participant's opinions in relation to satisfaction with daily medical consultations on the toll-free number during the Corona pandemic. The results obtained showed that the average of phrases ranged

between (4.16 and 4.03) and the overall average satisfaction was 4.12, which indicates that most of the participants were satisfied with daily medical consultations on the toll-free number during the Corona pandemic.

Regarding psychological counseling during covid-19, the results in Table 4 showed that the average of phrases ranged between (3.94 and 3.87) and the overall average satisfaction was 3.89, which indicates that most of the participants are satisfied with the application of psychological counseling (Qariboun) to promote mental health.

The value of the *t*-test in Table 5 shows that the variations between the participants' viewpoints were not significant according to gender variation. This indicates that participants' viewpoints towards healthcare services during Covid-19 are unaffected by their gender. Regarding the age variation of the respondents, *t*-test values of 0.37 with a *p*-value of 0.74 indicate the differences between the respondent's opinions according to the variation of age (40 and less-more than 40).

Table 6 reveals that the differences in the respondents' viewpoints there are insignificant according to the difference in their education level. Therefore, education level has little bearing on the sample members' opinions regarding satisfaction with healthcare services during Covid-19. The result of the analysis of variance showed that there are insignificant differences in the respondents' viewpoints according to their occupation; the *p*-value was 0.761, which is more than the 5% level of significance. This result suggests the participant's occupation has little bearing on the sample members' opinions regarding satisfaction with healthcare services that were introduced during Covid-19.

5. Discussion

During the Corona pandemic, the Kingdom of Saudi Arabia sought to provide health care for all its residents, citizens, and residents of all nationalities, to equip the

Table 2: Satisfaction with Healthcare Services in Hospitals and Health Centers

Phrase	Average	SD
Hospitals and centers provided the necessary health care during the Corona pandemic	4.14	1.09
Ease of entry procedures for hospitals and health centers	4.06	1.13
Corona detection procedures were quick and easy to access	4.05	1.19
Rapid response of health care service providers to patients' requests	4.18	1.07
Health precautions and distancing measures were applied appropriately	4.26	1.01
The quarantine and admission rooms were fully equipped	4.01	1.15
People with chronic diseases have found great interest in health service providers	4.17	1.11
Vaccination against corona was available in health centers and easy to access	4.24	1.06
Overall average	4.14	

Table 3: Satisfaction with the use of the Applications During the Corona Pandemic

Satisfaction with the Use of the (Moayed) Application During the Corona Pandemic		
Phrase	Average	SD
The application is a convenient way to access healthcare services during Corona	4.27	0.93
The application is more effective in providing the necessary healthcare	4.18	0.97
The application facilitated my access to healthcare services	4.19	1.01
I felt confident sharing information with healthcare providers through the app	4.20	0.95
The app met all my health needs	4.08	1.12
Overall average	4.18	
Satisfaction with the Medical Consultation Services Through the “My Health” Application		
My health application provided us with fast and convenient services during the Corona pandemic	4.29	0.94
My health application provided medical consultations easily	4.19	1.04
I felt confident in the medical consultations provided through the application	4.11	1.10
There are quick responses in medical consultations through the application	4.09	1.05
Satisfaction with Daily Medical Consultations on the Toll-free Number		
Daily medical consultations were available all day, 24 hours a day	4.03	0.78
The medical consultations via the free phone were effective	4.12	1.12
Medical consultations over the phone saved time and effort in going to hospitals	4.16	1.04
Medical consultations provided necessary medical prescriptions to patients during the Corona pandemic	4.15	1.03
Overall average	4.12	

Table 4: Satisfaction with the Application of Psychological Counseling (Qariboun)

Phrase	Average	SD
The Qariboun application provides psychological counseling services and is easy to access	3.94	0.96
The psychological consultations provided by specialized doctors were outstanding	3.87	1.11
I benefited from the application to receive the necessary psychological counseling services	3.89	1.31
Psychological counseling services were provided via video and text messages	3.88	0.74
The psychological guidance through the application removed a lot of fear and stress from me	3.91	1.05
Overall average	3.89	

Table 5: Satisfaction Differences According to Gender and Age

Variable	Gender	n	Mean	SD	t-value	p-value
Gender	Male	179	107.27	23.59	0.713	0.476
	Female	52	104.67	21.72		
Age	40 and less	201	106.89	23.44	0.37	0.74
	More than 40	30	105.40	21.56		

Table 6: Satisfaction Differences According to Education Level

Variables	Source of Variation	Sum of Squares	df	Mean Sum of Squares	F-value	p-value
Education level	Between groups	3689.955	3	1229.985	2.332	0.74
	Within groups	119751.272	227	527.538		
	Total	123441.177	230			
Occupation	Between groups	587.131	3	195.710	0.362	0.761
	Within groups	122854.047	227	541.207		
	Total	123441.177	230			

infrastructure for the health sector to confirm the continuation of the development of healthcare services in Saudi Arabia. A strategy improved by the health sector to meet the challenges like health services by raising levels of prevention against health risks, raising their efficiency and quality.

Efforts to develop the sector of health, which was considered one of the strategic dimensions of the National Transformation Program, emerged during the response to the novel coronavirus pandemic. The programs to achieve the Kingdom's Vision 2030 have had an important and pivotal role in the Kingdom's response to the health, economic and social effects of the pandemic, and in overcoming the crisis with all its challenges.

During the previous phase, the health sector achieved many accomplishments such as improving the efficiency and quality of health services and making it possible for them by paying attention to the digitization of the health sector, launching a package of applications (My Health, Mawid, Qureeboon) and enlarge the concealment of the services to all the areas of Saudi Arabia.

This study attempts to evaluate patient satisfaction with healthcare services in Saudi Arabia, particularly in Hawtat Bani Tamim governorate, these services could be represented by the medical consultation services through "My Health", Mawid, Qureeboon applications, and the services of healthcare that were introduced in the health centers and hospitals during the Corona pandemic.

The results showed that most of the participants they are satisfied with the healthcare services in hospitals and health centers during the Corona pandemic. The phrases with high agree to them were Health precautions and distancing measures were applied appropriately, Vaccination against corona was available in health centers and easy to access, and Rapid response of health care service providers to patients' requests. This result indicates that the Hospitals and centers provided the necessary health care during the Corona pandemic, and there is the ease of entry procedures to hospitals and health centers, and Corona detection procedures were quick and easy to access.

Regarding patient satisfaction with (Mawid) application, the participant's opinions showed that the application is a suitable way to receive healthcare services during Corona; the application is more effective in providing the necessary healthcare services and facilitating their access to healthcare services. This result agrees with the results of Alanzi et al. (2022) who found that most of the attributes of the application were not difficult to use, and the aptness to learn, ingress information, and interrelate with the application was rated as high by most of the participants.

With regard to patient satisfaction with the medical consultation services through the "My Health" application, the sample members revealed that the "My health" application provided us with fast and convenient services during the Corona pandemic and provided medical consultations easily. This result agrees with the result obtained by (Triantafillou et al., 2021; Ramaswamy et al., 2020) those, who revealed that the level of patient satisfaction with telehealth services during covid-19 was very high.

In addition, the result of patient satisfaction with daily medical consultations on the toll-free number illustrated that medical consultations over the phone saved time and effort in going to hospitals and provided necessary medical prescriptions to patients during the Corona pandemic.

The healthcare administration focuses on the psychological effects of the covid-19 pandemic. The participant's perceptions signified that the Qariboun application provides psychological counseling services and is easy to access, the psychological guidance through the application removed a lot of fear and stress from me, and they benefited from the application to receive the necessary psychological counseling services.

The results of the *t*-test revealed that there was an insignificant difference between participants' opinions towards healthcare services during the Covid-19 pandemic due to differences in gender and age. Also, the result of the analysis of variance showed that there was an insignificant difference between the participant's perceptions due according to the education level and occupation.

6. Conclusion

The study aimed to assess patient satisfaction with healthcare services in Saudi Arabia, particularly in the Hawtat Bani Tamim governorate. The study found that the participants in the study explain their satisfaction with healthcare services during the coronavirus. The applications like Mawid, my health, and Qariboun received high levels of satisfaction due to their contribution to providing the needed services to patients during Covid-19.

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