

**EFFECT OF FUNCTIONAL QUALITY ON PATIENT SATISFACTION THROUGH
THE MENTAL IMAGE OF HOSPITAL**

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<http://doi.org/10.35409/IJBMER.2021.3271>

ABSTRACT

This study was prepared in order to reveal the effect of the functional quality of the health services provided at the Surgical Specialties Hospital in the Medical City in Baghdad on improving the mental image of the hospital. A random sample of (100) patients was selected by adopting the questionnaire tool as a measure of the study variables. The questionnaire tool was distributed among the inpatients of the hospitals included in the study. SPSS, v.25, was used to analyze the study data, and the results showed that there is a strong positive correlation between the variables (functional quality, mental image, and patient satisfaction). In addition to that, there is an effect of the mediating variable (mental image) on Improving the relationship of the effect of functional quality on patient satisfaction, which is a partial effect as this is evidenced by the direct and indirect effect values on the variable of the study.

Keyword: Functional Quality, Patient Satisfaction, Hospital Image, Health Services.

1. INTRODUCTION

Health organizations, whether in the private or public sector in developed countries, do not differ from other organizations in terms of the functions they exercise and their marketing systems, but rather in the goal that is community service and improving the level of health that is related to human life directly. With the increase in the demand for health services of all kinds, attention and advancement must be made to provide a service with high functional quality in an attempt to take care of the patient and gain his satisfaction. The patient satisfaction comes through his awareness of the service provided, and the higher levels of the quality of the functional service may lead to the formation of a positive mental image of the organization and its workers. Perhaps, the patient's acquisition of a mental image of the health services provided to him will be through accomplishing the tasks of service providers in knowing how to measure the quality of job service, realizing the specific specifications of its quality and working to meet the needs and expectations of patients and solve their problems, seeking to gain their satisfaction and then form the desired image that the organization seeks to achieve. Perceived service quality is related to perception, which is a mental process that creates a directive response that plays an important role in decision-making related to the patient's dealings with this hospital according to what his needs and desires dictate to him. So we find that he builds his perceptions (perceived mental image) depending on the expected quality of functional service. Nasrula (2020) conducted a study of the effect of functional quality (how to provide the service) towards the mental image of Bahiramas Hospital and the effect of the functional quality of health services on

patient satisfaction. The results of the study indicated that functional quality had a positive and important effect on the mental image of the hospital and patient satisfaction.

2. LITERATURE REVIEW

2.1 Quality of service

Quality currently occupies great importance to all organizations as it is the basis for business success. Concern for quality has become a global phenomenon as it is the first function of service organizations. Quality is known as the distinction and brilliance of products that enables hospitals to please their patients, keep them and gain their satisfaction (Muhammad & Syed Ali, 2015). Juran defined it as the suitability of the product for use and the ability to provide the best performance, the most accurate specifications, and conformity to the standards (Pheng&Rui, 2016).

As for the service, trying to define it is difficult, because its concept depends on the description of the activity. It describes the original meaning of the service, i.e. the type of work and activity that the service provider will perform for the patient (Lima et al., 2016). Service, according to Kotler, is a beneficial activity or performance that one party can provide to another and does not result in any ownership of anything (Johann, 2015). It cannot be seen, tasted, felt, heard or smelled before buying it, meaning that it is a performance and not an object. This means that the services are like a process, it is a performance more than a physical thing (Felix, 2017).

Thus, the concept of service quality can be defined as a manifestation of perfection in service provision, i.e. the degree to which the actual service performance matches the patient's expectations for this service (Kowalik&Klimecka-Tatar, 2018). The quality of service is an important element in differentiation in service provision for hospitals and is essential to patient satisfaction (Johann, 2015). The quality of service depends on the expected service (i.e. what the customer expects) or the realized (perceived) that (he realizes in practice). In order to satisfy the patient, there must be an understanding of what the quality of service is and what it means for the patient, as the hospital needs to measure and evaluate the quality of its services (Madelelne, 2015).

2.2 The functional quality of health services

Functional quality has captured the interest of many researchers in various fields. Researchers have gathered attention to the quality of the service provider in organizations and giving him the necessary care that he needs in order to achieve their highest goals, since, definitely, all organizations strive to carry out their work efficiently and effectively in order to achieve the previously planned goals at the lowest possible cost. The difference between a good and a bad organization is the manner in which the service provider in the organization deals with the customer, the service provision is a combination of workers and technology to reach a better way to provide high-quality services (Lucas, 2015).

The first to define functional quality is Gronroos (1998), who expresses it by (how), that is, how is the process of providing service. Functional quality is one that focuses on the 'how' and looks at issues such as the behavior of workers who communicate with patients and the speed of their service, that is, the way service is provided to the patient (Gi-Kang, 2006). The quality of the interaction between the service provider and the recipient of the service in the place where the service is provided depends mainly on aspects such as (time, absence of errors and safety in the service (Kowalik&Klimecka-Tatar, 2018). Interaction is a positive incentive for the patient

because it allows integration and dialogue between the patient and the service provider (Aguayo&Ramírez, 2020). It answers the question of how to perform the work that the patient gets on the service, that is, it is related to the performance of the service and is viewed largely in a subjective manner (Kazemi, 2015).

The communication of service providers with the patient is based on mutual understanding, empathy, participation, adaptation, responsiveness, and the desire to help patients and meet their requirements (Hussain et al., 2015). It has been called personal quality as it relates to how services are provided to patients and the relationships that are established between service providers and the patient who receive service (AL-Mahwey&Sayah, 2021). The hospital administration should strive to enhance the quality of its services by defining the strategic goal of service quality and following up on patients' needs and expectations (Al-Bahi, 2016).

2.3 Dimensions of the functional quality of health services

Most of the researchers agreed that (credibility, responsiveness, empathy and promptness) represent the dimensions of functional quality (Ioanna&Loukas, 2018; Nasrul, 2020; Akan 1995; Akhtar, 2011; Khanfousi, 2018). Accordingly, the current study will deal with the dimensions of functional quality as follows:

a. Credibility: how credible is the service provider? Is he reliable? (Al-Taie& Al-Alaq, 2009). Credibility is considered the honesty and reputation of the hospital and the reliability of the information obtained (Khanfousi, 2018).

b. Responsiveness: the ability and immediacy of response of the service provider when providing the service (An & Noh, 2009). It reflects the willingness to help the patient and provide quick service, as it is the real help in providing service to the patient (Mahmoud Wasaad, 2014) and it means humane treatment such as the service provider's package (Al-Zubaidi& Al-Shujairi: 2018).

c. Empathy: how the hospital and its personnel care about patients in order to make its patients feel valued and privileged (Norazah, 2013). This affects the perceptions, attitudes and assessments of patients towards building perceptions about the quality of services provided to them (Suki, 2014).

d. Promptness: the easy access to the service on site and at the right time (Sultan, 2012). Whether the service is available as the patient wants (Al-Ta'i and Al-Allaq, 2009), and whether the patient's waiting is not more than what is required (Khanfousi, 2018).

2.4. Patient Satisfaction

Devoting attention to the patient is an important and essential aspect of service organizations in the current century because of its great influence in determining the success of the organizations' strategy and thus enhancing their competitive advantage in the environment in which they operate.

Before dealing with the concept of patient satisfaction, it is necessary to refer to both the concept of patient and satisfaction. Satisfaction is termed in the English as (satisfaction) and in Latin it came from dividing it into two parts: (satis), meaning correctly, and (facere), meaning doing (Hussein, 2019). Satisfaction is a positive thing for a set of situations and feelings for a subjective experience in which an emotional response elicits perceived value (Polackova, 2018).

The results of satisfaction come from comparing past experiences and promises or information obtained with the case that was perceived or reached (Hussein, 2019).

Satisfaction is defined as an emotional response of the customer towards the experience of a specific product / service (Pokorna, 2015). As for the patient, it is the main goal in any organization to whom it directs all its activities and seeks to fulfill their needs (Namupala, 2019). The loss of these persons is an early warning of potential competitive threats to the hospital (Bordoloi et al., 2019) as it is the main force behind the ultimate success of any organization (Heyduk, 2010). It mainly assesses the level of quality of the hospital's services (Pohankova, 2007).

Therefore, patient satisfaction was defined as an evaluation process between what was expected and what was received from the services provided by the hospital (Chong et al., 2015). It is also known as the result that the patient gets when the service provided exceeds his expectations (Dawi et al., 2018).

2.5. Mental image of hospital

The mental image of a hospital is an important concept and a common term that many hospitals are interested in, yet it is still difficult to define as it represents the perceptions of the patient or groups that have an interest in the hospital (Obioma, 2019).

Mental image is linguistically defined as the form of the distinct thing in the mind of the individual, the plural of image is by fracturing the SAD (Baqer, 2014). As for the medieval dictionary, it was defined as 'the figure and the anthropomorphic statue. The image is like the imagination in the mind or the mind. It is a reflection of the individual's expectations towards the surrounding environment and all its components (Al-Khatib, 2011). Where the mental image is the actual presence that leads the hospital to differentiate from competing hospitals and build a sustainable competitive advantage (Yee, 2015). It is a difficult treasure to obtain, but it can be lost quickly and easily (Chin & Chin, 2014).

2. 6. Dimentions of the mental image of the hospital

Most of the researchers agreed that (physical appearance, impression, advertising and communication) represent the components of the mental image (Obioma, 2019; Nasrul, 2020; Tran et al., 2015; Abdel Fattah, 2015, Al-Bardaqani and Hamawi, 2017. Accordingly, the current study will address the mental image of the hospital as follows:

- a. The physical appearance: includes the physical facilities associated with the service, such as the physical planning of the buildings and the decorations (Al-Bardaqani&Hamawi, 2017)
- b. Impression: It is the creation of new desirable perceptions in others about his direction or the expression of those ideas taken from him for a specific goal for a personal motive (Al-Ahmar, 2020). It is an event in which a person first meets another person, and then forms a mental image of that person (Mackie, 2007).
- c. Advertisement: is a means of public communication used by an organization to convey its message through this means with the aim of informing and convincing customers of services (Swaidan: 2010).
- d. Communications: It is the administrative process based on interactive dialogue with the target audience through the organization, development and evaluation of a series of messages directed

towards the different groups of them with the aim of creating a place for the hospital in their minds. (Albakry, 2011).

2.7.Relationship between the study variables

The essence of this relationship is to satisfy patients with the outstanding required work. All service providers must take into account their functions, and patients 'reactions to the service provided to them must be verified (AL Saffar&Obeidat, 2020: 79). Functional quality affects the overall assessment of the patient's mental hospital image. The service providers have a significant positive influence on the hospital's image by patients (Nguyen & Leblanc, 2002). This means that patients see better functional quality and that the hospital's image will be improved in the patients 'eyes. Previous studies have proven that the functional quality has an effect on improving the hospital's image in patients' eyes (Nasrul, 2020).

2. 8.Hypotheses and research model

In order to achieve the goal of the study in knowing the effect of the functional quality of the health service on the patient's satisfaction through the mental image of the Surgical Specialties Hospital in the Medical City Department, and what kind of relationships they have. The following hypotheses were formulated:

(H1): There is a significant effect of the functional quality variable on patient satisfaction in hospitals included in the study, from the patients' point of view.

(H2): There is a significant effect of the organization image variable on patient satisfaction in hospitals included in the study, from the patients' point of view.

(H3): There is a significant effect of the functional quality variable on the patient's satisfaction through the image of included in the study, from the patients' point of view.

Figure (1) shows the study model that represent these relationships between the variables

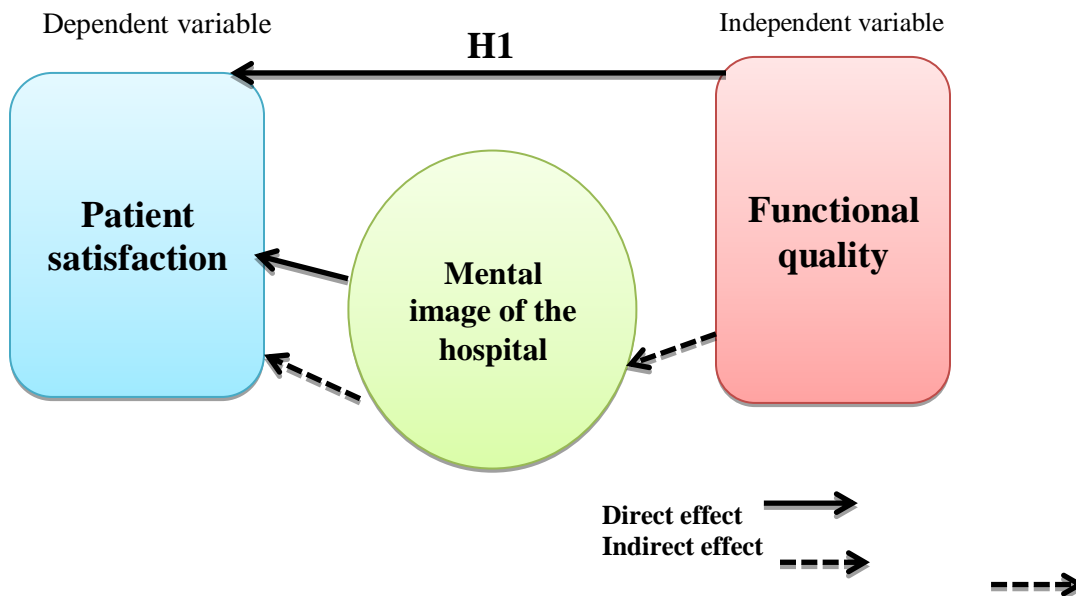


Figure 1. Proposed study model

2.9. Population and sample

The current study is an explanatory research to examine the hypotheses between the variables and focus on the interpretation of the effects between one variable and other variables. The study was conducted in the Surgical Specialties Hospital affiliated to the Medical City Hospitals in Baghdad, Iraq, which becomes a reference for clinics and doctors' practices and is visited by various communities, especially those who are from other provinces. . In this study, random samples were taken to represent the community in a realistic manner. All the hospitalized patients at Medical City Hospital were selected of private wings. The questionnaire was distributed to (100) patients. Table (1) and Table (2) illustrate the study population and the sample and how it is calculated in the hospitals studied.

Table (1) Total hospitalized patients in the Surgical Specialties Hospital in the first and second months of 2021

month	Surgical Specialties
first month	328
second month	355
Total	683
average	341.5

Table 2: Distribution of sample to the studied hospitable

Hospitals	Ratio of total number	Sample size (patients)
Surgical Specialties	341.5	100

3. ANALYSIS AND DISCUSSION OF FINDINGS

3.1 Scale reliability testing

To measure the functional quality variable for health services, a questionnaire consisting of four dimensions was used: (credibility, responsiveness, empathy and promptness), and consisted of (20) indicators (Ahmed et al., 2017, Saadallah, 2017). As for the patient satisfaction scale, (15) indicators were adopted to measure it as a single variable (Christine et al., 2019; Padma et al., 2015). The hospital mental image scale consists of four dimensions: physical appearance, impression, advertisement and communication). It consists of (20) indicators. (Rhaimi& Ahmad, 2015; Onyeaghala, 2019; Al-Bardaqaani&Hamwi, 2017). The questionnaire was designed according to Likert's five-point scale (1 very poor to 5 very good). The values of the Cronbach alpha coefficient ranged between (0.908-0.922) for the variables and dimensions. It showed greater than (70%), and this indicates that the variables and dimensions have an appropriate internal consistency. The coefficient of the internal consistency of the scale was

(0.918) as a whole, which is a high rating. These results indicate that the study scale has a high level of stability.

The data distribution test was also performed to determine the type of data distribution, whether normal or abnormal. (Kolmogorov-Smirnov) for the functional quality variable was (0.091), and for the patient satisfaction variable, it was (0.109), and the hospital mental picture variable was (0.098). It is obvious from the value of the significance level of the Kolmogorov-Smirnov test for all the research variables that it was smaller than the significance level at (0.05) and this indicates that the variables do not follow the normal distribution. Based on this result, the variables that do not follow the normal distribution will be treated by relying on the standard formula through what is known as the standardization method, after dividing the difference between the values of the variables from their arithmetic mean by their standard deviations (Chatterjee&Hadi, 2006: 139-140).

Table (3) shows the results of the normal distribution test for the study data.

Test parameter Variables	Kolmogorov-Smirnov			
	Test statistic	Degree of freedom	Significance level	Statistical significance
Functional quality	0.091	249	0.000	Significant
Mental image of the hospital	0.098	249	0.000	Significant
Patient satisfaction	0.109	249	0.000	Significant

3.2.Measuring the degree of occurrence of the variables

c.Degree of occurrence of the functional quality variable

The data collected was processed using (SPSS V.23) in Table (4). The results indicate that the functional quality variable has an arithmetic mean of (3.24) and a deviation of (0.597, 0.597) for the two dimensions of reliability and responsiveness, while it happened after the promptness with a standard deviation of (0.616).

Table 4: Ranking of importance for the dimensions of functional quality variable

	Dimensions of the functional quality variable	Mean	Standard Deviation	Variable availability Ratio	Gap size	Gap size to total	Ranking of dimensions
1	Credibility	3.55	0.597	71	29	20.6	1st
2	Responsiveness	3.55	0.597	71	29	20.6	
3	Empathy	2.95	0.711	59	41	29.1	2nd
4	Promptness	2.90	0.616	58	42	29.7	3rd

Table 5: Ranking of importance of the dimensions of the organization's mental image variable

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	Dimensions of mental image variable of the hospital	Mean	Standard deviation	Variable Availability Ratio	Gap size	Gap size to total	Ranking of dimensions
1	Physical appearance	3.21	0.547	64.2	35.8	21.8	1st
2	Impression	2.95	0.637	59	41	24.9	3rd
3	Advertisement	2.97	0.953	59.4	40.6	24.7	1st
4	Communications	2.65	0.733	53	47	28.6	4th

The data collected was processed using (SPSS V.25) in Table (5). Where the results indicate that the mental image variable has an arithmetic mean of (11.78) and a standard deviation of the physical appearance dimension (0.547), while it got the lowest percentage after communication, which amounted to 0.733.

e. Degree of occurrence of a patient satisfaction variable

The results in Table (6) indicate that the patient satisfaction variable has an arithmetic mean of (3.26) and a standard deviation of (4.06) for the indicator (specialized medical staff are available in the hospital that matches the patients' condition, which creates an appropriate atmosphere for interaction), which is the greater relative importance. The index (the hospital has all the amenities that the patient needs from the corridors and their equipment) got the lowest percentage, with a standard deviation of 2.85.

Table (6) Shows the arithmetic mean and standard deviation of the study sample responses to the patient satisfaction variable

	Item	Mean	Standard deviation	Mean relative weight	Relative importance	Response trend
1	Feel comfortable and reassured when dealing with the medical and nursing staff.	3.5	0.804	70	3	good
2	Provide timely treatment.	3.49	0.719	69.8	4	good
3	Meals are provided to incoming patients on time	2.95	0.91	59	14	middle

4	Patients feel a high level of medical and nursing care provided to him during his stay in the hospital.	3.07	0.724	61.4	10	middle
5	The patient can get the information he needs about his condition from the hospital.	3.42	0.753	68.4	5	good
6	The hospital has all the amenities that the patient needs from the corridors and their equipment.	2.85	0.706	57	15	middle
7	The patient feels the great care given by the nurse and their immediate response.	3.01	0.696	60.2	12	middle
8	The hospital medical staff seeks to reduce the patient's health concerns.	3.17	0.812	63.4	7	middle
9	The hospital has specialized medical staff to suit the patients' condition, which creates an appropriate atmosphere for interaction.	4.06	0.85	81.2	1	good
10	The medical staff encourage the patient in the hospital to improve his health.	3.2	0.869	64	6	middle
11	The behavior of the hospital staff is characterized by kindness and respect for the patient, starting from entering the hospital until leaving it.	3.06	0.887	61.2	11	middle
12	The hospital administration provides the required medical supplies.	3.15	0.807	63	8	middle
13	The cost of health services provided to patients is proportional to their financial situation.	3.12	0.814	62.4	9	middle
14	Other services are available for the patient lying in the hospital, including cooling, heating, electricity and water in all corridors.	2.95	0.874	59	13	middle
15	The existence of interactive relationships between doctors with appropriate specialties in terms of providing the necessary health services to the patient	3.88	0.745	77.6	2	good
Total average		3.26	0.526			

e. Relative importance of the study variables

To shed light on the study variable more, we relied on the arithmetic mean, standard deviation, dimension availability, gap size, gap size to total, and the Ranking of variables as shown in Table (7) where it becomes obvious that the smallest gap size was at the variable (patient satisfaction). It came in the first rank in terms of the study variables. As for the largest gap size, it was at the mental image variable, as this variable came in the third rank in terms of the research ranking of variables.

Table 6: Variable importance ranking

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	Search variables	Mean	Standard deviation	Variable availability ratio	Size gap	Size gap to total	Variables ranking
1	Functional quality	3.24	0.483	64.8	35.2	24.7	2nd
2	Mental image of the hospital	2.94	0.495	58.8	41.2	28.9	3rd
3	Patient satisfaction	3.26	0.526	65.2	34.8	24.4	1st

3.2. Hypotheses testing

a. Test of the first hypothesis (H1) which states that there is a significant effect of the functional quality variable on patient satisfaction in hospitals included in the study, from the patients' point of view.

The analysis will be done according to the simple linear regression model, as follows:

$$Y = 0.965 + 0.709 X_1$$

The symbol (Y) represents the patient satisfaction (the dependent variable).

- The symbol (X1) represents functional quality (the independent variable).

The results of Table (8) for the analysis of the relationship of the effect of functional quality on patient satisfaction showed the following:

The (F) value calculated for functional quality scored at patient satisfaction (181.802). It is greater than the tabular value (F) of (3.89) at the level of significance (0.05). Therefore, the first hypothesis (H1) (there is a significant effect of the functional quality variable on the patient's satisfaction in the hospital included in the study from the patients' point of view) is accepted.

It appears through the value of the coefficient of determination (R2) of (0.424) that the functional quality explains (42%) of the variables that occur to the patient's satisfaction, while the remaining percentage (58%) is due to other variables that are not included in the study model. The value (t) calculated for the marginal slope coefficient of the functional quality variable is (13.483). It is greater than the tabular value (t) of (1.660) at the level of significance (0.05). This indicates that the significance of the marginal slope coefficient for the functional quality variable is proven. It is obvious through the value of the marginal slope coefficient (β) of (0.709) that increasing the functional quality by one unit will lead to an increase in patient satisfaction by (70%), and the value of the constant (α) in equation was (0.965), meaning when the functional quality is equal to zero, the patient satisfaction will not be less than this value.

This result is consistent with the findings of the study (Felix et al., 2017).

b. Test of the second hypothesis (H2) which states that there is a significant effect of the organization image variable on patient satisfaction in hospitals included in the study, from the patients' point of view.

The analysis will be done according to the simple linear regression model, as follows:

$$Y = 1.270 + 0.676 M$$

-The symbol (Y) represents the patient satisfaction (dependent variable).

-The symbol (m) represents the mental image of the hospital (independent variable).

Table 8: Analysis of the effect of functional quality on patient satisfaction

Significance	Sig	Computed (t) value	Computed (F) value	The coefficient of determination	The value of marginal slope coefficient (β)	Fixed Limit Value (α)	Dependent variable	Independent variable
Significant	0.000	13.483	181.802	(R2)	0.709	0.965	Patient satisfaction	Functional quality
tabular (F) value = 3.89 Tabular (t) value = 1.660 Sample size = 100								

The results of Table (9) for analyzing the relationship of the effect of the mental image of the hospital on patient satisfaction showed the following:

The value (F) calculated for the mental image of the hospital was (168.167) at patient satisfaction. It is greater than the tabular value (F) of (3.89) at the level of significance (0.05), therefore, we accept the second hypothesis (H2), which states (There is a significant effect of the organization image variable on patient satisfaction in hospitals included in the study, from the patients' point of view).

The value of the (0.405) (0.405) is also shown that the mental image is explained (40%) of the variables that have been satisfied with the satisfaction of the patient, either the remaining and expensive percentage. The value of (T) was calculated for the tendency factor for the mental image variable (12,968). It is greater than the value (1.660) at a significant level (0.05) and this refers to a moral structure of mental tendency factor, as evidenced by the value of military (0.676) to increase the mental image one unit will increase patient satisfaction by 67%. The fixed value (α) was recorded in the equation (1.270), meaning when the mental image is equal to zero, the patient satisfaction will not be less than this value. This result is consistent with its findings of study (Nasrul, 2020).

Table 9: Analysis of the effect of the mental image of the hospital on customer satisfaction

Significance	Sig	Computed (t) value	Computed (F) value	Coefficient of determination (R ²)	Value of marginal slope coefficient (β)	constant term value(α)	Dependent variable	Intermediate variable
Significant	0.000	12.968	168.167	0.405	0.676	1.270	Patient satisfaction	Mental image
Tabular (F) value = 3.89 Tabular (t) value = 1.660 Sample size = 100								

c. The test of the third hypothesis (H3) which states that there is a significant effect of the functional quality variable on the patient's satisfaction through the image of included in the study, from the patients' point of view.

To test this hypothesis, the analysis will be adopted according to the multiple linear regression model, as follows:

$$Y = a + 1 (X1) + \beta2 (M)$$

$$Y = 0.399 ++ 0.255 (X1) + 0.343 (M)$$

Where the symbol (Y) represents the patient's satisfaction (the dependent variable).

- The symbol (X1) represents the functional quality (the independent variable).
- The symbol (M) represents the mental image of the hospital (the intermediate variable).

The results of the hypothesis test were shown in Table (10) as follows:

- The value of (F) calculated for the model is (90.602). It is greater than the tabular value (F) of (2.65) at the level of significance (0.05), therefore, the third hypothesis (H3) is accepted: (There is a significant effect of the functional quality variable on patient satisfaction through the mental image of the hospital from the patients' point of view). This result is consistent with the findings of the study (Nasrul, 2020).

- Through the value of the coefficient of determination (R²) of (0.526) It becomes obvious that the functional quality and the mental image together are able to explain (52%) of the changes that occur to (patient satisfaction), while the remaining percentage (48%) is dependent on other variables other than Included in the study model.

- It is obvious through the value of the marginal slope coefficient of the functional quality variable of (0.255) that increasing the functional quality by one unit will lead to an increase in (patient satisfaction) by (25%).

- It is obvious from the value of the marginal slope coefficient of the mental image variable of (0.343) that increasing the mental image by one unit will lead to an increase in (patient satisfaction) by (34%), as is obvious in Table (10) and Fig. (2).

Table 10: Effect between functional quality and mental image on patient satisfaction

Dependent variable	Approach	Independent and intermediate variables	(β) The marginal slope	t test	Sig	F test	sig	Correlation coefficient (R)	Coefficient of determination (R ²)
Patient satisfaction	<---	Functional quality	0.255	3.544	0.000				
	<---	Mental image	.343	5.819	0.000				

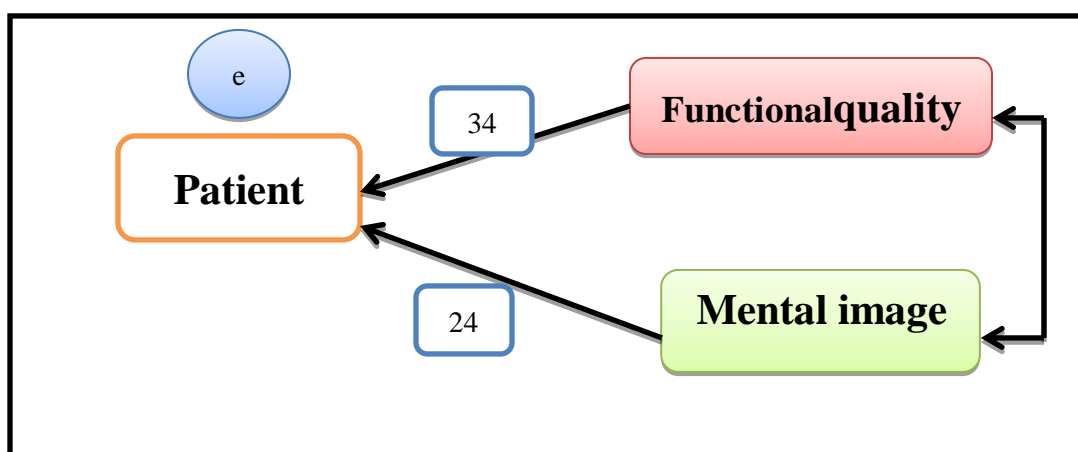


Figure 2. Effect of functional quality and mental image on patient satisfaction

Now that the effect relationship and correlation between the study variables we move to the second phase, which is testing the direct and indirect effect relationship between variables. Table (11) shows the following:

- The results showed that the critical value (CR) of the two variables, mental image and patient satisfaction, reached (8.485), which is greater than the standard critical value of (1.96), and thus there is a significant effect between functional quality and mental image.
- The results showed that the critical value (CR) of the two variables, mental image and patient satisfaction, reached (5.855), which is greater than the standard critical value of (1.96). This indicates that there is a significant effect between mental image and patient satisfaction.
- Through the results, it is obvious that there is an effect of the variable (mental image) in improving the relationship between functional quality and patient satisfaction, this is evident through the values of the direct and indirect effect. the results showed that the value of

the indirect effect between functional quality and patient satisfaction) which is (0.199) is less than the value of the direct effect between them which is (0.255). This means that the effect of the variable (mental image) between the two variables, functional quality and patient satisfaction is a partial effect, due to the fact that the critical value (CR) between functional quality and patient satisfaction reached (3.566), which is greater than the critical standard value of (1.96), that is, the effect of the independent variable (functional quality) still exists. Therefore, the variable (mental image) affected this relationship partially and not completely, as shown in Table (11) and Figure (3).

It should be noted here that sometimes there is a very slight difference in the numbers shown in the table from the numbers shown in the figures, as the AMOS program rounds numbers when drawing to two decimal places only.

Table 11: Direct and indirect effect of functional quality in achieving patient satisfaction through the mental image of the hospital

Research Variables			Indirect effect	Direct effect	S.E.	C.R.	sig of direct effect	sig of indirect effect	Sig of direct effect	Type of effect
Mental image	<---	Functional quality	---	0.579	0.070	8.485	0.000	---	significant	---
Patient satisfaction	<---	Functional quality	0.199	0.255	0.078	3.566	0.000	0.005	significant	Partial effect
Patient satisfaction	<---	Mental image	---	0.343	0.062	5.855	0.000	---	significant	---

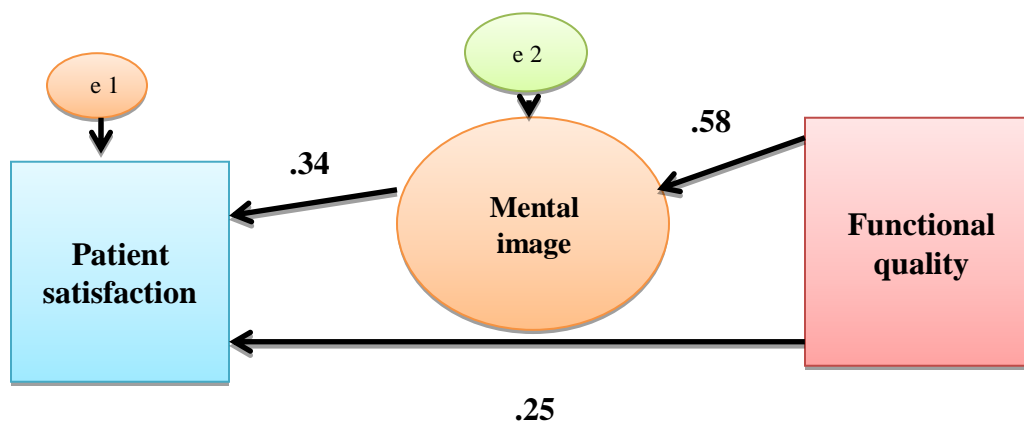


Figure 3. Effect between functional quality and patient satisfaction by mediating the image

4. CONCLUSIONS AND FUTURE RESEARCH

Conclusions

The results showed that there is a strong positive direct relationship between the variables (functional quality, mental image, and patient satisfaction). In addition, there is an effect of the variable (mental image) in improving the relationship between the two variables functional quality and patient satisfaction, which is a partial effect as this is obvious through the values of the direct and indirect effect. This indicates that the patients trust the expertise, skills, and qualifications of the medical staff in the hospitals included in this study, the sample of the study. Also, the hospital staff has credibility when dealing with patients, but not at the level that the patient aspires to. Sometimes the hospital conceals some details for the patient in order to preserve his spirits and not to exaggerate matters, knowing that they inform the patient's families with all credibility of the state of health. The result indicates that emergency services for patients through ambulances are not of the required level, as they suffer from weakness in providing service to them before reaching the hospital and receiving the required services.

The results generally indicate that the level of empathy in the hospitals studied, is not at the required level. The medical staff sometimes does not understand the psychological nature of the patients and is not keen to listen to the patients and dialogue with him.

The results, also, indicate that, in general, the hospitals' interest in the external appearance was at an average level, despite knowing that the external appearance of the hospital buildings and green spaces affect the patients' disease status.

However, it is often governed by determinants for making adjustments or maintenance on the hospital, as it is limited to special areas or within a high population density area that limits the process of expansion or development where the importance becomes relative.

Results indicate that the image or first impression of patients changes during the period of stay or receiving health services as the patient builds a positive impression at the beginning until he receives health services, and the medical staff quickly responds to the complications he suffers at any time in (24) hours, then the impression either increases in the positive or decreases. The contribution of advertisements for rare medical specialties for the hospital in attracting patients is not at the required level because here is a weakness in the advertising process. Consequently, the patient does not know the nature of medical specialties, especially rare ones in hospitals. In addition, the network does not cover all hospital buildings, as some suffer from damage and others require periodic maintenance.

Future research

This study was conducted only in the Surgical Specialties Hospital in Medical City, in Baghdad, Iraq. The study relied on taking a random sample of patients. The future researcher can expand the scope of the study by conducting a comparative study between public and private sector hospitals, or conducting a study between state hospitals and hospitals in neighboring countries.

REFERENCE

1. Ali. M & Raza. S. A., (2015), Service quality perception and customer satisfaction in Islamic banks of Pakistan: the modified SERVQUAL model, Total Quality Management & Business Excellence, Total Quality Management.
2. AL-Mahwey. Q N. & Sayah. H R., (2021), The Impact of Information and Communication Technology on the Technical Quality of Health Services "A Study at Al-Shatrah General

Hospital – Dhi- Qar, Iraq", *Global Journal of Management and Business Research: G Interdisciplinary* Volume 20 Issue 5 Version 1.0 Year.

3. Al-Taie H & Basheer .Al, (2009), *Service Operations Department*, First Edition, Al-Yazouri Scientific Publishing and Distribution House, Amman - Jordan.

4. Al-Zoubi, Basil Mansour Abdul-Karim, 2017, *The Impact of Relationship Marketing in Building the Mental Image of Commercial Banks' Customers in Jordan*, this thesis completes the requirements for awarding a Master's Degree in Marketing, College of Business, Jordan, Amman Arab University

5. Al-Khatib, M. A., 2011, *The impact of Deception in Marketing to Build a Mental Picture of Services in the Jordanian Market*, Unpublished Master Thesis. University of the Middle East: Amman, Jordan

6. Al-Bardakani, Muhammad Munir, Fawaz Salum Hamwi, 2017, *The Role of Quality Hotel Services in Improving Revenues*, Al-Baath Magazine, Volume 39, Issue 74, Damascus, Syria.

7. Al-Ahmar, Ahmad Taleb Mahdi, 2020, *Body language and its impact on customer impression*, *Journal of Arts, Literature, Humanities and Sociology*, Volume 89, Issue 52 Pages 264-278

8. Al-Bakri, Thamer Yasser, 2011, *Marketing Department*, Ithraa Publishing and Distribution, Jordan

9. Akan. P, (1995), *Dimensions of service quality: a study in Istanbul*, *Managing Service Quality* Volume 5 • Number 6 • pp. 39–43.

10. Akhtar. J, (2011), *Determinants of Service Quality and Their Relationship with Behavioural Outcomes: Empirical Study of the Private Commercial Banks in Bangladesh*, *International Journal of Business and Management* Vol. 6, No. 11; November

11. Aguayo N & Cristina M. R, 2020, *Does technical assessment matter? Functionality and usability testing of websites for ESL/EFL autonomous learners*, *Research in Learning Technology* Vol. 28.

12. Baqer, Musa, 2014, *the mental image in public relations*, first edition, Osama Manshar House, Amman, Jordan.

13. Budianto A, (2019), *Customer Loyalty: Quality of Service*, *Journal of Management Review*, Vol. 3, No. 1, 299 -305

14. Boles, J. S., Babin, B. J., Brashear, T. G & Brooks, C. (2012), “ An examination of the relationships between retail work environments, salesperson selling orientation customer orientation and job performance”, *Journal of Marketing Theory & Practice*, 9, 1 – 13

15. Chin, W. J., and Chin, M. L., 2014, *Factors affecting the Hotel's Service Quality: Relationship marketing and corporate image*. *Journal of Hospitality Marketing & Management*, Vol. 23, No.1

16. Chong, S. Choy and Teoh, W. M. Yen and Qi, Ye, (2015), *Comparing Customer Satisfaction With China Mobile And China Telecom Services: An Empirical Study*, *Proceedings of the Australasian Conference on Business and Social Sciences*, ISBN 978-0-9925622-1-2, Sydney P 1083-1094.

17. Felix R, (2017), *Service Quality and Customer Satisfaction in Selected Banks in Rwanda*, *Felix, J Bus Fin Aff*, vol 6, no:1

18. Grönroos .Ch, (1998), "Marketing services: the case of a missing product", *JOURNAL OF BUSINESS & INDUSTRIAL MARKETING*, , p328,

-
19. Gi-Du Kang, 2006, The hierarchical structure of service quality: integration of technical and functional quality, *Managing Service Quality* Vol. 16 No. 1.
20. Hussain.R , Amjad . Al- N & Yomna K. H, (2015), Service quality and customer satisfaction of a UAE-based airline: An empirical investigation, *Journal of Air Transport Management* 42 ,167e175
21. Ioanna .K, & Loukas. T, (2018). The impact of the financial crisis and austerity policies on the service quality of public hospitals in Greece, *Health Policy*, Vol.122, Issue 4, 352-358.
22. Johann M, (2015), *Services Marketing*, First Edition, Copyright by Szkoła Główna Handlowa w Warszawie (SGH) al. Niepodległości 162, 02-554 Warszawa, Polska.
23. Kowalik. K & Klimecka-Tatar .D, (2018), The process approach to service quality management, *PRODUCTION ENGINEERING ARCHIVES* 18 , 31-34
24. Kazemi, M, (2015), The Assessment of the Customers' Expectations and Perceptions Towards the Quality of Educational Services: the Case of Industrial Engineering and Management programme at KTH (Royal Institute of Technology), Master of Science Thesis, KTH Industrial Engineering and Management ,Industrial Management, Stockholm, Sweden 37-50
25. Khanfousi .A. A, (2018), *Electronic Payment Law*, First Edition, Academic Book Center, Amman, Jordan.
26. KATERINA POKORNÁ, 2015, CUSTOMER SATISFACTION ANALYSIS AND PROPOSALS FOR INCREASING ITS LEVEL AT, MASTER'S THESIS, BRNO UNIVERSITY OF TECHNOLOGY, FACULTY OF BUSINESS AND MANAGEMENT,
27. Lima. Y. J, Abdullah. O, Shahrul. N. S, Abdul Rahim. R & Safizal A ,(2016), Factors Influencing Online Shopping Behavior: The Mediating Role of Purchase Intention, *Procedia Economics and Finance* 35 401 – 410
28. Myungsook An ,Yonghwi Noh,(2009), Airline customer satisfaction and loyalty: impact of in-flight service quality, *Serv Bus* 3:293–307, Received: 24 June
29. Nasrul,(2020), "The effect of functional quality variables and technical quality on patient satisfaction mediated by image", *Management Science Letters*, 10 (2020) 1587–1596
30. Norazah .M. S,(2014) , Passenger satisfaction with airline service quality in Malaysia: A structural equation modeling approach, RTBM-00130; No of Pages 7, Contents lists available at ScienceDirect Research in Transportation Business & Management
31. Norazah. M. S,(2013), Customer Satisfaction with Service Delivery in the Life Insurance Industry: An Empirical Study, *Jurnal Pengurusan* 38,101 – 109
32. NAMUPALA .I. N.,(2019), AN INVESTIGATION OF THE IMPACT OF QUALITY OF SERVICE ON CUSTOMER SATISFACTION OF NAMPOWER RESIDENTIAL CUSTOMERS, OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION OF THE UNIVERSITY OF NAMIBIA
33. Nhanguyeh & Gastonleblanc ,2002, contact personnel ,physical environment and the perceived services by new clients, *International journal of services industry management* vol 13.no 3,p p 242-262.
34. Norazryana Mat Dawi, Ahmad Jusoh, Justas Streimikis, Abbas Mardani 2018, THE INFLUENCE OF SERVICE QUALITY ON CUSTOMER SATISFACTION AND CUSTOMER BEHAVIORAL INTENTIONS BY MODERATING ROLE OF SWITCHING

BARRIERS IN SATELLITE PAY TV MARKET, Economics & Sociology, Vol. 11, No. 4, pp 198-218.

35.Nasser Abdul Ghani Al- Saffara and AbdallahMishael Obeidatb,2020, The effect of total quality management practices on employee performance: The moderating role of knowledge sharing, Management Science Letters, by the authors; licensee Growing Science, Canada. Management Science Letters 10 , 77–90

36.OnyeaghalaObioma, H. Ph.D,2019,A Three Dimensional Model of Corporate Image Configuration: Lesson for Managers,Saudi Journal of Economics and Finance Abbreviated Key Title: Saudi J Econ Fin, OnyeaghalaObioma, H., Saudi J Econ Fin, Nov 2019; 3(11): 472-479.

37.Pheng. L. S &Rui. Z,(2016) ,Service Quality for Facilities Management in Hospitals, Springer Science+Business Media Singapore

38.Poláčková. Bc. P,(2018),Spokojenostzákazníků, Zadánídiplomovépráce, Fakultapodnikatelská, Vysokéučenítechnické v Brně / Kolejní.

39.PETR HEYDUK ,2010, Návrhnazlepšeníposkytovanýchslužeb VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ BRNO UNIVERSITY OF TECHNOLOGY FAKULTA PODNIKATELSKÁ.

40.POHANKOVÁ. D,(2007), Analýzaspokojenostizákazníků a návrhyopatřenínazvýšeníjejíúrovně, VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ BRNO UNIVERSITY OF TECHNOLOGY FAKULTA PODNIKATELSKÁ

41.Sweidan, Nizam Musa, 2010, Contemporary Marketing, Dar Al-Hamed, Amman.

42.Tran, M. A., Nguyen, B., Melewar, T. &Bodoh, J ,2015, Exploring the corporate image formation process. Qualitative Market Research .

43.Yee, W. S., 2015, Relationship Between Customer Satisfaction, Service Quality, and Corporate Image of a Malaysian Company, Thesis Submitted to the School of Graduate Studies, University of Putra Malaysia, Master Degre.