



## MEASURING THE QUALITY OF HEALTH SERVICES IN LATTAKIA PROVINCE PATIENTS' PERSPECTIVE (FIELD STUDY OF HEALTH CENTERS IN JABLEH CITY)

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### ABSTRACT

#### Article History

Received: 15 December 2016

Revised: 18 January 2017

Accepted: 15 February 2017

Published: 7 March 2017

#### Keywords

Service

Health services

Health

Health system

Health center

Quality services

Satisfaction.

This study aims to measure the quality of health services provided in Lattakia province (Jableh city) from beneficiaries' perspective, the study sample group is chosen from the families who visited health centers in Jableh during the current crisis across the country. The researcher used the descriptive and analytical approach, a questionnaire was designed and distributed between families who benefited from provided health services in order to measure the quality of provided health services in the mentioned centers. The sample consists of 1100 questionnaire which is about 10% of the sample study group, using random sampling principle, and in order to measure the quality of health services the researcher used the satisfaction of health services beneficiaries model. The data was studied and analyzed using SPSS program. Data analysis showed that health services centers in Jableh city lack quality, depending on the Dimensions of Quality Health Services (tangibility, reliability, responsiveness, empathy, credibility and safety) from the perspective of the beneficiaries of the provided services.

#### Contribution/ Originality:

This study is one of very few studies which have investigated the measurement of beneficiaries' satisfaction with health services provided at Jableh health centers.

### 1. INTRODUCTION

Health care Quality concept can be seen from different points of view as David (1999) explained. Patients think of health care quality as a caring respective services provided by hospitals and health centers, doctors think of it as putting the most advanced knowledge, science and medical expertise at patients' disposal, while hospitals and health centers' administration think of it as efficiency in the provision of medical services. The Joint Commission on Accreditation of Hospitals (JCAH) identified Health Care Quality as the degree of commitment to contemporary standards recognized in general good practice and expected results for a specific service or doing a medical diagnosis of the problem (Syed *et al.*, 2009).

The interest in the quality of services is not a new topic, but what's new in this topic lies in the process of using modern scientific methods and statistical methods for the application of quality management programs, and the

development of appropriate standards and performance levels and maintain high levels of administrative, technical and medical performance. Therefore, the study seeks to adopt perceptions / expectations scale for measuring and evaluating services quality level.

The importance of this study comes from being the first study that focuses on the quality of provided services by health centers in Lattakia area, and the fact that it complements many other researches for the status of provided health services in Syria during the current crisis in the country which affected all services and economic sectors as a result for a 5 years' war.

### 1.1. Previous Studies

Salah Mahmoud Zyab: Measuring Quality Dimensions of Government Jordanian Hospitals: A Staff and Patients perspective. Amman, Jordan 2012

The study aimed to measure quality dimensions of medical services provided in government hospitals in Jordan from a staff and patients perspective. The population included all government hospitals in Jordan. The study sampled patients and staff randomly selected from three hospitals in northern, central and southern Jordan. A selective questionnaires were used to collect data.

The study had many important findings including that hospital staffs respond that government hospitals apply medical service dimensions of reliability, tangibility, empathy, and safety taking into account that application varies among the five dimensions. Patients' assessment of the same dimensions is equally matched with regard to all dimensions except responsiveness and empathy. The study revealed no differences in the dimensions of quality attributed to any of the demographic variables.

In the light of conclusions, the study made recommendations associated with the important indicators of quality dimensions: hospital administration need to show commitment to provide medical services to patients in a timely manner, give attention to patients' problems, maintain medical records and trust, and develop advanced appointment systems and advice patients of the same, provide patients waiting rooms with appropriate restrooms, provide employees with incentives and training courses, simplify provision of medical services procedures, and establish a unit for quality dimensions administration.

AtyehMusleh: Measuring Quality Dimensions of Qalqilya Hospitals: A Staff and Patients perspective. Alkudes open university, Qalqilya education area.

This study aimed to identify the quality level of the actual services perceived by staff and patients in hospitals operating in the city of Qalqilya, and to identify differences in their responses depending on the following variables: hospital, respondent, gender, marital status, age, educational qualification, and occupation.

The researcher used the descriptive method and SERVPERF scale to measure the quality of perceived and actual service, questionnaire consisted of 28 items divided into 6 domains: the tangible physical evidence, reliability, strength of response, safety & trust, empathy, characteristics of the hospital. The tool of the study was constructed with the help of the literature review and previous studies regarding this issue, the tool was also tested for validity, reliability and suitability.

The results showed that the responses of the studying sample towards actual and perceived quality of services, by staff and patients were high on all fields of study and on the total score.

Also there were significant differences on the following areas: power response, safety and confidentiality, and empathy due to the variable of gender was in favor of males, and the study provided a set of recommendations such as providing the requirements of hospitals with modern equipment and providing suitable training courses for workers in their respective fields in order to improve the quality of medical services provided.

Osama Alfaraj: evaluating Quality level of health care services in higher education ministry hospitals in Syria, patients prospective: measuring patients satisfaction model- high institute for administrative development, health institutions administration and economy, Damascus University 2009

This study focused on the quality level of the actual health services in higher education ministry hospitals in Syria, the study aimed to demonstrate the impact of the survey given to the patients using the provided services on the behavior of institutions that provide medical care services, the survey included 39 questions and it was distributed on sample group of 474 patients from 4 hospitals (university Assad hospital, Almwasat, children and obstetrics, gynecology) one of the most important results the researcher achieved : 75% if the study sample group are satisfied with the provided health services in the mentioned hospitals, the psychological analysis also gave good trusted results which can be used as basis for future studies.

## **2. RESEARCH PROBLEM**

After conducting the survey by the researcher, the research problem focused on Quality variables of provided Health services in Lattakia health centers, therefor, the main problem can be broken down to a group of questions:

1. What's the quality level of public health services provided in Lattakia health centers (Jableh city during the current Syrian crisis)?
2. What's patients' satisfaction rate for the quality of health services provided during the current crisis?
3. What is the relative weight of each dimension of the health services quality dimensions?

### **2.1. Research Objectives**

The research aim to achieve the following objectives:

1. Studying quality level of health services provided in Jableh health centers and patients satisfaction rate with the mentioned services during the current crisis
2. Measuring Quality level of provided health services in the study area, and identifying the relative weight for each element of health services quality elements.
3. Provide some proper recommendations in the light of study results.

### **2.2. Research Hypotheses**

In order to answer Research problem questions, the study started with basic hypothesis: a reduction in the quality of health services provided at the health centers in the study area as a result of the current crisis across the country which generate the following partial combination of assumptions:

1. Sub- Hypotheses No.1: (null hypothesis H<sub>0</sub>) which states: there are no significant differences between the quality dimensions of health services provided in health care centers in Jableh city and the dimensions of the quality of health services to be provided at the level of significance ( $\alpha = 0.05$ )  
(Alternative Hypotheses H<sub>1</sub>) which states: there are significant differences between the quality dimensions of health services provided in health care centers in Jableh city and the dimensions of the quality of health services to be provided at the level of significance ( $\alpha = 0.05$ )
2. Sub-Hypotheses No.2: patients are not satisfied with the quality of health services in the health centers.
3. Sub-Hypotheses No.3: there are fundamental relative differences between changes in quality dimensions of health services (tangibility, reliability, responsiveness, safety and reliability, empathy) in the research area from patients' perspective.

### **2.3. Research Importance**

Research importance comes from the importance of studying the quality of provided health services in health care centers, which can be inferred through the following indicators:

1. The importance of government health centers role and the importance of health services provided to citizens in the study area in the light of the current crisis and the rising cost of medical care as a result of the economic and living difficult conditions

2. Knowledge and measuring application level of health service quality standards in study area centers.
3. The importance of this study comes also from choosing Jableh city Area which serving about 159,000 people.
4. Studying quality dimensions through patients satisfaction with the provided service and their acceptance and satisfaction rate of this services.

This study is a contribution of scientific theory by studying and analyzing the quality of services provided at the health centers in Latakia. It is also a practical addition as it provide experimental evidence of the quality of provided health services and patients satisfaction.

## 2.4. Research Method

The descriptive statistical approach was used in addition to the inductive analytical approach to describe the study sample group and community, also choosing research hypotheses; place: families in the province of Latakia (Jableh city), time: 2016, research sample: 10% of the families in the study area (simple random sampling).

## 3. THEORETICAL STUDY

### 3.1. The Concept of Public Health

World Health Organization defines good health as “full physical and mental wellbeing and not merely the absence of disease or lack of balance.” (Tal’at, 2016).

The World Bank also confirms that both health and the ability to improve health are linked to income and education and the variables caused by wealth and education in the individual’s behavior, as well as the amount of expenses and efficiency in the health system, and the spread level of existing diseases determined by climate and geographical and environmental factors to a great extent (Ibrahim, 2009).

Health Center: is the health unit working under the supervision of Primary Health Care Department in the region, and it aims to improve local community health through providing primary health care services for a group of residents according to specific criteria based on the concept of primary health care and its adopted strategy (Ministry of Health, 2015).

### 3.2. Concept of Service and Health Service

American Society for marketing defined Service as “activities or benefits offered for sale or that they are offered because they relate to a particular commodity “

Stanton 1997 defined service as “intangible activities which achieve a benefit for the client or beneficiary, which is not necessarily related to the sale of a commodity or another service. "Meaning, producing or providing specific service doesn’t require using physical commodity (Hamid *et al.*, 2002).

GRONOOS defined Service as “activity or series of activities which are intangible in general but not necessary through interaction between the consumer and the service personnel or material resources or goods or regulations, which are presented to the client” (Hani, 2005).

Health service or medical care is defined as “therapeutic or curative or diagnostic services provided by one of the medical team members to community member/s” (Thabet, 2006).

Health service is also defined as “an activity provided to beneficiaries which aim to satisfy the end consumer needs and wishes, and it’s not related to selling another good or service” (Abdul, 2000).

Lewis and Bones reached the conclusion that service quality is a concept which reflect the suitability of the provided service to beneficiary expectations. From here we can see that quality of service is determined by the end beneficiary which is done by comparing his expectations with the actual service performance which will result in a gap that will evaluate how satisfied he is with the service (Fawzi, 1998).

#### 4. THE MAIN REASONS THAT LED TO INCREASE ATTENTION TO THE QUALITY OF HEALTH SYSTEM IN RECENT YEARS

- Good health is the ideal circumstance for people's enjoyment of their lives.
- Health is the only topic which all people are interested in.
- Health services are one of the biggest and most complicated industries now considering: (their high cost, high profit, large number of employees, diversity of public positions, the large number of people in need of health services, consume a large proportion of the available resources and energies of the state, medical services needs the most complex types of technology and the most expensive) (Philip and Shirley, 1995)

##### 4.1. Characteristics of Health Services

1. Intangibility: Health service is not tangible, meaning it doesn't have physical presence, therefore; the production and consumption processes are happening simultaneously.
2. Correlation: meaning that both service provider and beneficiary are present at the same time, in another meaning, the services are provided and consumed at the same time.
3. Wane service: which means that the service can't be stored
4. Asymmetry: difficult to ensure the same quality of provided health services, such as other commodities.
5. Contact the client: Most health services require the client presence and his intervention in requesting the service, intervention is not limited to outputs as in goods, but also with the inputs, processes, till reaching the outputs.
6. Ownership: lack of transfer of ownership is particularly important for health services compared to material goods, and what's paid is for the direct benefit obtained from the service (Mahmoud, 2010).

##### 4.2. The Foundation of Health Services

There are many factors that determine the principles and attributes of health services, such as residents' public needs and doctors' impression for what's best for his patients, planning these services is done by estimating urgent needs and has a significant correlation with ongoing research and studies in medical care and health information systems, and organizing medical institutions such as hospitals, health centers, multiple services clinics, in order to provide medical services with high level of quality, it must offer quantity and quality sufficiency.

Quantity sufficiency: provision of medical services with a sufficient number commensurate with the population.

Quality sufficiency: the provision of medical services with appropriate level and type of quality (Ayman, 2000).

##### 4.3. The Concept of Quality Health Service

Identifying concept of quality of service includes the following points:

- The quality of health service from professional and medical perspective: is to provide the best services according to the latest scientific and professional developments, and controls the ethics of the practice of the profession.
- Health service quality from the administrative perspective: how to use available resources and the ability to attract more resources to meet the requirements for providing outstanding service.
- Quality of health service from patient perspective: it means the quality of health service and how to get it, and its final outcome (Mazuz and Abdul, 2011).

The definition of "Joint Commission for the adoption of organizations" for the quality of health services. It's a degree of commitment to contemporary standards recognized in general good practice, knowledge of the results of expected service or procedure or diagnosis of any medical problem (Khalid, 1994).

#### 4.4. Measures of Quality of Medical Services

1. Satisfaction scale: is the most used scale to measure beneficiary' satisfaction with the quality of provided service especially after they receive the service by asking questions that reveal to services institutions how clients feel toward the provided service and its weakness and strength, as it also enable the institutions from adopting quality strategy consistent with the needs of clients, and reach their satisfaction towards its provided services (Qasim, 2005).

Beneficiary' satisfaction is when patients feeling comfortable and they accept the overall received service during their stay in the health care facility, including medical and nursing services. The integrated dimensions of the beneficiary' satisfaction concept include: (Osama, 2008)

- A. Professional medical care.
- B. Professional nursing care.
- C. Behavioral health care.
- D. Organizational characteristics.
- E. Hospitality

Satisfaction rates can be divided to the following:

- A. Performance > expectancy, happiness  
Close association and loyalty to the organization.
- B. Performance = expected, satisfaction  
Justify: good, acceptable, poor.
- C. Performance < expected, resentment  
Find another alternative.

2. **Service performance scale:** Actual service performance, which is made of two words: Service and performance, this model is known by Servperf, it appeared during 1992 as a result of studies carried out by both Taylor et Cronin, The Quality under this model is known as directional concept linked to client realization to the actual service performance, the direction is known as" the performance based on a set of dimensions associated with the evaluation of provided service" (Naji, 1998)
3. **Measuring professional quality:** many researcher believe that evaluating service quality from client perspective is part of quality program, Consequently, professional quality standards addresses the capacity of service providers to meet its diversified services through the optimal use of available resources (Qasim, 2006).
4. **Measuring quality in terms of clients:** people who use this measure think that the availability of proper environmental institution with equipment, tools, qualified personnel regulations, support systems and specific objectives and work methods will diffidently lead to achieving special service.
5. **Measuring quality in terms of operations:** this scale is concerned with processes quality or service phases, it also contain indicators and standards for acceptable percentages of provided services' elements to be classified as good services. Despite having some logical aspects of this scale but it's considered accurate in designing and measuring and evaluating service quality compared with other methods, considering it rely on service operations instead of quantity.
6. **Measurement of service in terms of output:** output quality is measured through the following methods:
  - Benchmarking: amount comparisons are made between the target performance and actual performance in order to detect weaknesses and try to avoid them in the future.
  - client satisfaction survey about provided service

#### 4.5. Dimensions of Quality of Health Services

1. **Tangibility:** tangibility refers to the appearance of facilities, physical equipment and manpower, communication tools and materials. In addition, tangibility aspects are the used facilities, information technology and communication and the internal facilitations and required equipment to providing the service, and the external appearance of personnel, the internal arrangement for health organization, waiting locations for service beneficiaries (Salah, 2012).
2. **Reliability:** service provider ability to successfully perform the required task under normal usage circumstances for a specific period. In this definition there are 4 important elements: service availability, performance, usage circumstances, and specific period. It is also characterized with providing the promised health services at the promised time, and keeping error free records, therefore, the tendency to over promised services will lead to unrealistic expectations, and it will only cause losing clients trust, because patients see service through time of provision and fulfillment of obligations (Parasuraman *et al.*, 1985).
3. **Responsiveness:** responsiveness means the service provider ability and speed in responding to beneficiaries' inquiries and questions. It reflect service provider willingness and desire to help the client and provide fast service, responsiveness in health services sector means the service provider permanent ability and desire and preparation to provide service to the beneficiaries when they need it. Responsiveness is also known as the real help in providing service for patients (Salah, 2012).
4. **Safety and Trust:** it means what personnel have in terms of qualifications, knowledge and confidence in providing the service, service quality standards under this dimension are: the reputation and prestige of the health center is high, outstanding knowledge and skills of doctors and nursing staff, personal qualities of employees. It could be argued that the safety and confidence as one of quality of health service dimensions is intended to confirm that health organization is administrating health quality and support that with qualified personnel (doctors, nurses, etc) as well as providing modern medical supplies which will lead to providing equivalent quality health services (World Health Organization, 2006).
5. **Empathy:** empathy refer to the care level of patients and giving them special treatment, taking care of their problem and find solutions for them in a humane way. This dimension includes other properties such as: the availability of the service in terms of time and space, telecommunications, and service supplier understanding degree of the beneficiary. Other evaluation criteria for this dimension are: personal attention to the patient, listening to the patient's complaint, meeting patient' needs in a friendly kind spirit (Salah, 2012).

#### 6. MEASURING SERVICE QUALITY FROM CLIENT PERSPECTIVE EXPECTATIONS/PERCEPTIONS

This measurement is based on the client expectation of the service quality, and their perception of the performance of the service actually provided. The gap or conformity between the expectation and the perception is defined using the service's five dimensions.

The core meaning of quality is to meet patients' health care needs and requirements, which should be in conformity with the pre-usage patients want. Conformity is largely related to the patient-recognized value of health care service, and the resulting contentment with it. The mathematic formula "content = perception – expectation" articulates this relationship. Contentment resembles the disparity between the level of service actually accessed and the level expected before accessing to the service. Service measuring is the extent of conformity between the actually service provided to clients and clients' expectation about it. And thus, service quality means to

study, analyze and foresee clients' expectations, and the continuous efforts to improve. Within this context, two key concepts align to define the gap in the quality of services, including: (Qasim, 2006).

**1. Client expectations:** performance comparable reference standards or points derived from the expertise of dealing with the service. These standards and points are somehow stated in terms that clients expect the service to comply with.

**2. Client perceptions:** when the client perceives the service as actually offered. They might be content with it and accordingly admire its results. This model is based to two-side equation: service quality = expectations – perceptions.

This theory is derived from the conformity theory. Three cases could result; compliance, negative gap or positive gap (Salim, 2009).

### 6.1. Gap models for Service Quality Measuring

Gap 1, between patient expectation and management perception of these expectations: the management's inability to detect expected needs and desires of patients. For example, the management may think that patients seek better food, while patients in fact may seek better nursing services.

Gap 2, between Management perception of patient's expectations and service quality specifications: even if the management is familiar with patient expectations and desires, however, they do not translate them into specific specifications of the service provided due to restrictions relevant to financial resources or the inability to adopt quality philosophy.

Gap 3 between service quality specification and service delivery: persons in charge of delivering the service may not be trained in the right way, or able or willing to comply their performance with the specific standard measures such as listening to the patient sufficiently and then accomplishing the task quickly.

Gap 4 between service delivery and patients' service delivery related external communications: the difference and variation between the service delivered to patients and service agreed on in advance and via communications between the hospital administration and patients.

Gap 5 the difference and variation between patient expectations (expected service) and the perceived service (actual): Service quality is one of the factors that either matches patient expectations or exceeds them. Individual evaluation of the service as high or low quality depends on the patient's perception of the service's actual performance within the context of the expected. This gap exists when the patient does not get the expected quality of the service (Parasuraman *et al.*, 1985).

### 6.2. Health Services in Lattakia Health Centers (Health Centers in Jableh City)

#### 6.2.1. Analytical Study of the Dimensions of the Quality of Health Services Provided in Jableh City

The researcher has designed a survey which contain 5 sections and 40 questions in order to study the quality of health services provided in Jableh city, where he presented the survey to number of experts in the mentioned centers and experts from the scientific committee in Tishreen University. Survey sincerity was shown after making some modifications. Initial sample of 80 surveys were distributed on number of families in order to identify the clarity and simplicity of survey questions. After clarifying both clarity and simplicity 1100 surveys were distributed on families in the study area which is 10% of the study sample, as there was 11340 families (simple random sample) and 17 health centers providing services for those families at rate of 75 survey for families in each health center vicinity. 1040 survey were collected and 72 surveys were rejects due to lack of answers which leaves 968 survey for analysis. This data was entered to SPSS program for analysis and using ALFA scale to find Reliability rate and internal consistency level, the results were as the following:

RELIABILITY ANALYSIS - SCALE (ALPHA)

Reliability Coefficients

N of Cases = 968.0 N of Items = 40

Alpha = .8762

This means that if the survey with various indicators was distributed on different sample of families in a different time there is a probability of 87% to reach the same results we reached.

Fifth Likert scale was used in survey answers as the following:

<b>Strongly Agree</b>	<b>Agree</b>	<b>neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
5	4	3	2	1

Likert scale arithmetic mean =  $1+2+3+4+5 / 5 = 15/5 = 3$  It's the value where the arithmetic mean of each question of dimension is compared.

**The results of statistical analysis of tangibility dimension:** series of tangibility questions were asked in the health centers and the results were:

Table-1. Results of families answers in study area to tangibility questions

arithmetic mean	Code		Question	
3.30	AAA	tangibility	Easy access to close health center from your residence	
1.95	AAB		the available health center has all medical departments and clinics	
1.79	AAC		it has doctors for all medical departments	
1.68	AAD		The center has modern equipped ambulances	
2.05	AAE		Number of ambulances covers the area residents needs	
2.01	AAF		The health center has modern effective medical equipment and laboratory	
1.97	AAG		The health center offers services for people with special needs	
3.83	AAH		There is appropriate sitting and waiting halls in the center	
3.74	AAI		The health center is clean and tidy and decent in terms of appearance	
3.74	AAJ		personnel are clean has good appearance	
1.89	AAK		lectures on health and safety are being held in the center on regular basis	
1.92	AAL		The health center personnel visit homes on a permanent basis to provide health education on disease	
<b>2.49</b>				Total

Source: Data analysis,SPSS, 2016

In table (1) we can see the following: the arithmetic mean of tangibility dimension (2.49) which explain lack of tangibility dimension since its arithmetic mean is smaller than 3. The fact that despite respondents confirmed easy access to health center and availability of good waiting and resting place, in addition to center' cleanliness and appearance of center and personnel, however: these centers lacked variety of clinics and medical specialties and specialized doctors and modern ambulance and medical laboratory equipment to cover clients' needs, also, this centers lack services for people with special needs ,and they don't pay enough attention to spreading health education awareness through forums and lectures.

**The results of statistical analysis of reliability dimension:** series of reliability questions were asked in the health centers and the results were:

Table-2. Results of families answers in study area to reliability questions

arithmetic mean	Code		Question
3.82	ABA	reliability	The personnel stick to their work place within the center
1.90	ABB		Easy to make complaints and suggestions for center management
1.91	ABC		Health services are provided real quickly in the center
1.82	ABD		All needed medications are available in the center for free
4.24	ABE		All children vaccine are available in the center for free
1.69	ABF		You can get all the information you need by calling the center
1.63	ABG		Computer system is used in tracking patients cases
1.73	ABH		The center keep accurate trusted medical records
3.79	ABI		The center is following working hours regulations to provide services to patients
4.39	A BBD		Doctors' appointments are free in the center
4.01	ABBS		Admission in the health center is free always
1.86	ABBF		All tests are available in the center
4.20	ABBE		If tests were available in the center, are they free?
1.54	ABBW		x-ray services are available in the center
1.59	ABBQ		If x-ray services were available in the center, are they free?
<b>2.68</b>			

Source: Data analysis, SPSS, 2016

In table (2) we can see the following: the arithmetic mean of tangibility dimension (2.68) which explain lack of reliability dimension since its arithmetic mean is smaller than 3. for the following reasons: Insufficient types of available medications to cover all needs, lack of accurate medical records, lack of enough medical test types, difficult access to information from the center, lack of X-ray services in the center, the center is not using computer systems to enter medical data of patients, complaints and suggestions are not easily submitted to the center administration, and services are provided to patients at slow pace.

**The results of statistical analysis of responsiveness dimension:** series of responsiveness questions were asked in the health centers and the results were:

Table-3. Results of families answers in study area to responsiveness questions

arithmetic mean	Code		Question
1.92	ACA	responsiveness	The center ensures to offer its services in accurate and fast manners
3.82	ACB		The personnel treat clients politely and with hospitality
3.6	ACC		Center nurses tell their patients carefully how to use their treatment
1.82	ACD		The personnel show personal attention
1.39	ACE		Medical staff are available 24/7
1.73	ACF		Patients wait for short time to get the service
<b>2.39</b>			Total

Source: Data analysis, SPSS, 2016

In table (3) we can see the following: the arithmetic mean of responsiveness dimension (2.39) which explain lack of responsiveness dimension since its arithmetic mean is smaller than 3. The personnel treat clients politely and with hospitality, and they tell clients how to use their treatment but what's taken on this dimension is Medical staff are not available 24/7 which require patients to wait for long time to get service, lack of speed in provision of available services by staff and not paying enough attention for each patient and his health status.

**The results of statistical analysis of trust and safety dimension:** series of trust and safety questions were asked in the health centers and the results were:

Table-4. Results of families answers in study area to trust and safety questions

arithmetic mean	Code		Question
1.77	ADA	Trust and safety	There is complete trust in the medical staff in the center
1.59	ADB		Staff at the center are ready to meet patient requests immediately
1.99	ADC		You don't prefer to visit clinics and private centers if you had resources
1.66	ADD		center personnel has sufficient knowledge to answer patient queries and questions.
3.89	ADE		Do you prefer an comprehensive health center which includes all services and competencies and modern medical equipment and ambulances, even if it was more distant from your home?
4.00	ADF		Do you prefer having several specialized health centers in your area (diabetes - heart attack, etc.) instead of the current public centers?
1.60	adg		The current health centers capable of improvement if the same personnel and funds are available in the coming years
<b>2.36</b>			Total

Source: Data analysis, SPSS, 2016

In table (4) we can see the following: the arithmetic mean of trust and safety dimension (2.36) which explain lack of trust and safety dimension since its arithmetic mean is smaller than 3. what highlight the analysis of this dimension is that most respondents strongly support establishing health centers (3 or 4 centers) which include all services and departments and contain appropriate equipment and modern ambulances even if these centers were distant from respondents' residence. Or make each of the existing center specialize in one or more department (heart – Diabetes – etc ) and provide them with proper equipment which ensure descent health services for clients.

Table-5. Results of families answers in study area to empathy questions

arithmetic mean	Code		Question
1.30	aea	Empathy	Working hours at the center are suitable for all clients
1.63	aeb		Clients get personal attention from center personnel
1.64	aec		health centers employees respect patient's own conditions and interact with them
1.44	aed		Health center personnel establish good relation with clients and patients
<b>1.51</b>			Total

Source: Data analysis, SPSS, 2016

In table (5) we can see the following: the arithmetic mean of empathy dimension (1.51) which explain lack of empathy dimension since its arithmetic mean is smaller than 3.what highlight the analysis of this dimension is that most respondents feel lack of empathy by health center staff in the study area.

by measuring the Mean of previous dimensions (quality dimensions) we see the following:

Table-6. The Mean of quality dimensions

Descriptive Statistics			
Std. Deviation	Mean	N	
.221	2.49	968	Tangibility
.158	2.68	968	Reliability
.296	2.39	968	Responsiveness
.246	2.36	968	Safety and trust
.309	1.51	968	Empathy
.196	2.37	968	Quality
		968	Valid N (list wise)

Source: Data analysis,SPSS, 2016

In table (6) we note that the mean quality has reached (2.37), and thus we can say: there is lack of quality of health services provided at the health centers in the study area in terms of the quality dimensions of provided health services from beneficiaries perspective in Jableh city, and in order to confirm the previous results the researcher has calculated the answers mean for each variable separately and conducted one-sample test to see whether the mean value is fundamentally different from value 3 there results were as in the following table No (7) :

Table-7. One- sample test results

Test Value = 0							
95% Confidence Interval of the Difference		Mean Difference	Sig. (2-tailed)	df	t		
Upper	Lower						
2.51	2.48	2.49	.000	967	350.592	Tangibility	
2.69	2.67	2.68	.000	967	527.110	Reliability	
2.41	2.37	2.39	.000	967	250.770	Responsiveness	
2.38	2.35	2.36	.000	967	299.248	Safety and trust	
1.52	1.49	1.51	.000	967	151.616	Empathy	
<b>2.38</b>	<b>2.36</b>	<b>2.37</b>	<b>.000</b>	<b>967</b>	<b>375.714</b>	<b>Quality</b>	

Source: Data analysis,SPSS, 2016

In the previous table we can see that (P sig=0.000) quality variable value is smaller than significance level (0.05) which means the arithmetic mean of variable quality is (2.37) and thus no regard for the principle of quality when providing services in the health centers.

Thus, the first sub-hypothesis (null hypothesis H0) which states: there is no significant differences between the quality dimensions of health services available in the health centers in Jableh city and the dimensions of the quality of health services to be provided at the level of significance (a=0.05) is incorrect. We reject the null hypothesis and accept the (alternative hypothesis H1), which states: there is significant differences between the quality dimensions of health services available in the health centers in Jableh city and the dimensions of the quality of health services to be provided at the level of significance (a=0.05).

Thus, the second hypothesis, which states: that beneficiaries are not satisfied with the quality of health services provided by the centers, is correct.

Multiple linear regression study of quality variable: by studding the multiple linear regression of quality variable(dependent variable)on the independent variables (tangibility - reliability - responsiveness - safety and trust - empathy), where regression equation is as follows:

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + e$$

Where: (a) represent the constant term, (b1, b2, b3, b4) partial regression or partial tendencies transactions, (e) the random error

The following tables show the results of multiple regression analysis:

**Model summary**

Std. Error of the Estimate	Adjusted R Square	R Square	R	Model
.124	.801	.804	.777(a)	1

a Predictors: (Constant), tangibility - reliability - responsiveness - safety and trust – empathy

ANOVA(b)

Sig.	F	Mean Square	df	Sum of Squares		Model
.000(a)	292.884	4.502	5	22.508	Regression	1
		.015	962	14.786	Residual	
			967	37.293	Total	

a Predictors: (Constant), tangibility - reliability - responsiveness - safety and trust – empathy

b Dependent Variable: Quality

Coefficients(a)

Sig.	t	Standardized Coefficients	Unstandardized Coefficients			Model
		Beta	Std. Error	B		
.000	-8.325		.105	-.873	(Constant)	1
.000	13.206	.273	.018	.242	tangibility	
.000	12.066	.252	.026	.312	reliability	
.000	20.961	.444	.014	.294	responsiveness	
.000	20.310	.421	.017	.336	Safety and trust	
.000	14.774	.319	.014	.203	empathy	

a Dependent Variable: Quality

Coefficients

	Collinearity Statistics			Correlations	Sig.	t	Standardized Coefficients		Unstandardized Coefficients	Model
VIF	Tolerance	Part	Partial	Zero-order			Beta	Std. Error	B	
					<b>0.738</b>	0.335		0.003	<b>0.001</b>	(Constant)   1
1.765	0.567	0.379	1.000	0.870	0.000	539.792	0.503	0.001	<b>.312</b>	tangibility
1.948	0.513	0.281	1.000	0.861	0.000	399.995	0.392	0.001	<b>.322</b>	reliability
1.273	0.785	0.192	0.999	0.607	0.000	274.451	0.217	0.001	<b>.120</b>	responsiveness
1.067	0.938	0.210	0.999	0.429	0.000	299.856	0.217	0.001	<b>.110</b>	Safety and trust
									<b>.133</b>	empathy

Data analysis, SPSS, 2016

we can say that quality= y, tangibility= x1, reliability= x2, responsiveness= x3, safety and trust=x4, empathy=x5, and looking at some quality results in the previous (Coefficients) table we can see the following:

a = 0.001

$P_{sig} = 0.738 > \alpha$

Therefore, the quality dimensions(tangibility - reliability - responsiveness - safety and trust – empathy) is enough to explain the differences in the Dependent Variable: Quality and regression equation is as follows:

$$y = 0.312x_1 + 0.322 x_2 + 0.120x_3 + 0.110 x_4 + 0.133$$

And we can see in the model summary table that correlation coefficient value = 0.777, which is a strong and extrusive correlation. Determination coefficient 0.8 which expresses the effective representation of the equation.

From the previous regression equation, we note that great amount of the changes in quality variable happened due to reliability variable, then tangibility variable, then empathy, then responsiveness and finally safety and trust. (The relative weight of each independent variable is in its impact on the dependent variable)

Thus, the third sub-hypothesis, which states: there are basic relative differences between the changes in the quality dimensions of health services (tangibility, reliability, responsiveness, safety and trust, empathy) in the study area from beneficiaries' perspective and provided services, is correct.

In the previous regression equation, we note that the bulk of changes in the quality variable happened due to reliability variable (33%) then tangibility variable (31%) and the total effect of the two variables is equal to (64%).

## 7. MEASURE THE GAPS TO SHOW THE QUALITY OF PROVIDED SERVICE AT THE HEALTH CENTERS FROM SAMPLE PERSPECTIVE

As we mentioned earlier, quality of service = expectations - perceptions (actual performance), and therefore, according to the study sample and place of study is not possible to measure but the fifth gap between patient expectations (expected service) and perceived service (actual) considering it's the only gap perceived by health center client, to the fact that other gaps occur within the hospital and related to management which is beyond study sample. The client expect to get good service, and by quality dimensions' divisions, and fifth Likert scale, the client' expectation in the study sample was AGREE or STRONGLY AGREE ranking (4,5) according to likert scale answers ranks, we will take the arithmetic mean between Agree and Strongly Agree as the following:

The arithmetic mean of clients expectations in survey answers = (Agree +Strongly Agree)/2 = 4+5/2 = 4.5

**Table-8.** Measuring gap and clients' satisfaction in Jableh city health centers

Dimension	Clients' expectations	Actual service	Quality Gap(negative)	Satisfactions= perception-expectation	Result
tangibility	4.5	2.06	2.44	-2.44	Performance <expected, discontent and dissatisfaction
Reliability	4.5	2.07	2.43	-2.43	Performance <expected, discontent and dissatisfaction
responsiveness	4.5	1.91	3.31	-3.31	Performance <expected, discontent and dissatisfaction
safety and trust	4.5	2.00	2.5	-2.5	Performance <expected, discontent and dissatisfaction
empathy	4.5	2.23	2.27	-2.27	Performance <expected, discontent and dissatisfaction
Quality	4.5	2.05	2.45	-2.45	Performance <expected, discontent and dissatisfaction

Source: Data analysis., 2016

In table 8 we can see the following:

- low degree of actual service perceived by the study sample for quality and for all its dimensions, where it was lower than the comparative arithmetic mean according to the fifth Likert scale (3).
- a large gap (negative) between expected services and perceived services, where the value of the gap was larger than the perceived services quality and all quality dimensions from health centers clients' perspective in Jableh city during the current crisis.

- lack of satisfaction by the studied sample where performance was <expected for services quality and all five dimensions.

From the above, the second hypothesis, which states: that Social Affairs directorate employees in Latakia are not satisfied with provided health services quality in the national hospital, is correct.

## 8. CONCLUSIONS

1. Health centers in Jableh city doesn't have the necessary quality of health services according to tangibility dimension, the arithmetic mean reached 2.49, and also they don't have health services quality according to reliability dimension, the arithmetic mean reached 2.68. nor there is quality for health services according to responsiveness dimension, where arithmetic mean reached 2.39, as well as for safety and trust dimension, where arithmetic mean reached 2.36, and empathy 1.51.
2. Lack of quality for provided government health services in study area from beneficiary families' perspective.
3. There is a large gap (negative) between expected services and perceived services provided in Jableh health centers.
4. tangibility and reliability dimensions are the most influential quality health services dimensions, where their impact on quality variable reached 64%, followed by empathy and responsiveness dimensions, and finally safety and trust dimension according to beneficiaries in the study area.
5. We note that government investment in health centers were based on a quantitative increase, the number of centers reached 17 center in the study area, and the quality of services was not taken into consideration.
6. The current crisis across the country greatly affected all sectors including health services sector, which has led to poor quality of health services provided during the current crisis in the country.
7. There is full reconciliation in the selection of the current model because the mentioned quality dimensions (tangibility, reliability, responsiveness, safety and trust, empathy) is sufficient to explain the variations in the dependent variable (quality).

## 9. RECOMMENDATIONS

1. Working on raising quality level of health services provided in the study area, through increasing attention to reliability and tangibility dimensions being the most important dimensions for the study sample and adopting unified scales for health services quality in health ministry centers.
2. Training human resources in health centers in order to raise the quality of provided services and increase their attention of beneficiaries of health services.
3. The need to increase the number of doctors and medical departments in the health centers in the study area in order to provide all services to citizens with high quality, in addition to increasing the number of modern ambulances and provide health centers with necessary equipment.
4. Access to model health center seven if it led to a reduction in the number of current existing centers.
5. reconsider health investments directed by the ministry, taking into consideration quality of provided health service (quality) more than quantity (increasing the number of centers with no regards to quality of health services).

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**Contributors/Acknowledgement:** All authors contributed equally to the conception and design of the study.

## REFERENCES

- Abdul, M.A.S., 2000. Primary health care. 1st Edn., Hordan: Al yazouri Publishing House. pp: 11.
- Ayman, M., 2000. Global health and safety. 1st Edn., Amman Jordan: Shorouq Printing House. pp: 79.

- David, H., 1999. Achieve total quality. England London: Director Book. pp: 13-17.
- Fawzi, S.M., 1998. Marketing health care services. Egypt: Itrak for Publishing and Distribution. pp: 97.
- Hamid, A.T., A.S. Mahmoud, A.A. Bashir and A.A.Q. Ihab, 2002. Scientific principles for modern marketing. Amman, Jordan: Scientific Yazouri for Publishing and Distributing Printing House. pp: 196.
- Hani, H.A.D., 2005. Services marketing. 2nd Edn., Amman, Jordan: Wael Publishing House. pp: 11.
- Ibrahim, T., 2009. Economic analysis and investment in medical fields. Algeria: Modern Book Printing House. pp: 18.
- Khalid, B.S., 1994. The effectiveness of the quality programs, Saudi ministry of health hospitals. Arab Journal of Administrative Sciences, 2(1): 12.
- Mahmoud, J.A.S., 2010. Service marketing. Amman, Jordan: Maysara Printing Houses for Publishing and Distribution. pp: 40.
- Mazuz, A. and A.F. Abdul, 2011. Organizational change and its relationship to the overall quality management, health management organizations. University of Saaddahlab Blida Book Publishing. pp: 16.
- Ministry of Health, 2015. Syrian Arab Republic, Health centers Book, Planning Directorate: 23.
- Naji, M., 1998. Measuring quality of banking services. Journal of Administrative Sciences, 25(02): 362.
- Osama, F., 2008. Evaluating the quality of health care services in higher education hospitals in Syria from patients' perspective: A model for measuring satisfaction of patients, higher institute for administrative development. Damascus: Damascus University. pp: 64.
- Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1985. A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(4): 41-50. [View at Google Scholar](#) | [View at Publisher](#)
- Philip, G. and H. Shirley, 1995. The measurement of service quality. UK: A New P-C-P Attributes Model-Ireland.
- Qasim, N.A., 2005. The overall quality management in service. Amman, Jordan: Sunrise for Publishing and Distribution. pp: 101-125.
- Qasim, N.A.M., 2006. Quality management in services. Amman, Jordan: Sunrise for Publishing and Distribution. pp: 105.
- Salah, M.D., 2012. Measuring the quality dimensions of medical services provided in Jordanian government hospitals: Patients and staff perspective. Islamic University Journal of Economics and Management Studies, 20(1): 69 -104.
- Salim, I.H., 2009. Satisfaction rate of students of the faculty of economics at the University of Aleppo for administrative and academic performance level of college: A survey. Damascus University Journal of Economic and Legal Sciences, 25(2): 287.
- Syed, M.I., A. Amiir and S. Saman, 2009. An assessment of service quality of private hospitals in Pakistan: 45.
- Tal'at, A.D., 2016. Health care service economics. 2nd Edn., Al Quds Library, Al Zaqaayek: Egypt. pp: 17.
- Thabet, A.E., 2006. Efficiency and quality of logistic services: Basic concepts and measuring and evaluation concepts. Alexandria, Egypt: University Publishing House for Publishing and Distribution. pp: 291.
- World Health Organization, 2006. Quality of care-(Process for Making Strategic Choices in Healthsystem), regional office for the Eastern Mediterranean: 9.

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