

Measuring the level of patient's satisfaction for those attending primary health centers versus family medicine centers in Basrah governorate

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ABSTRACT

Background: Patient satisfaction is defined as the total judgments made by the recipient of a healthcare as to whether -or not- their expectations have been met. It is an important measure of healthcare quality as it offers information on the provider's success to meet the clients' expectations.

The Study Objectives: The study aimed at measuring patient's satisfaction in primary health centers of Basrah governorate with a comparison between primary health centers that follow family medicine strategy versus general primary health centers.

Methodology: It's a cross sectional study involved patients attended primary health care centers in Basrah governorate during June 2016.

Standard check lists and questionnaires from Iraqi Ministry of Health were used to measure five main indicators of patient satisfaction including: appearance, credibility, responsiveness, security and empathy with a four likert scale to measure the satisfaction of patient. A total sample included 456 patients.

Results: The lowest Cronbach's coefficient alpha value was found by the study to be in the "general appearance" dimension which included the general infrastructural appearance of the health facility with appropriate waiting areas for the attendees, cleanliness and lighting of the facility in addition to the general look and appearance of the health workers and service providers. While "assurance" dimensions shows the highest percentage of satisfaction. In addition, no significant difference was revealed for the chosen satisfactory dimensions between the health care centers providing family-medicine services compared to those with no family-medicine ones.

Conclusions: The study remarks important weaknesses in some of the patient satisfactory dimensions including general appearance, responsiveness, apathy and assurance. However, it provides an evidence of having no significant difference for the chosen satisfactory dimensions between the health care centers providing family-medicine services compared to those with no family-medicine ones.

Key words: Patient's satisfaction, primary health care, Family medicine, Basrah

قياس مستوى رضا المرضى حول الخدمات المقدمة في مراكز الرعاية الصحية الأولية مقابل مراكز طب الأسرة في محافظة البصرة.

يُعرّف رضا المرضى بأنه إجمالي الأحكام الصادرة من متلقي الرعاية الصحية وإن كانت توقعاتهم قد تحققت أم لا. وهو مقياس مهم لجودة الرعاية الصحية لأنه يقدم معلومات حول نجاح مقدم الخدمة لتلبية توقعات المستفيدين من الخدمة.

أهداف الدراسة: تهدف الدراسة إلى قياس مدى رضا المرضى عن مراكز الرعاية الصحية الأولية في محافظة البصرة مقارنة بمراكز الرعاية الصحية التي تتبع استراتيجية برنامج طب الأسرة.

المنهجية: هي دراسة مقطعية مستعرضة تشمل المرضى المراجعين لمراكز الرعاية الصحية بنوعها (مراكز الرعاية الصحية الأولية العامة و المراكز الصحية التي تتبع استراتيجية طب الأسرة) في محافظة البصرة خلال حزيران ٢٠١٦. تم استخدام قوائم الاستبيان القياسية من وزارة الصحة العراقية لقياس خمسة مؤشرات رئيسية لرضا المريض: المظهر العام، المصدقية، الاستجابة، الأمان والتعاطف. شملت العينة الإجمالية ٤٥٦ مريضاً.

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النتائج: وجدت الدراسة أن أدنى قيمة ألفا كرونباخ في "المظهر العام" البعد والتي تشمل المظهر العام للبنية التحتية للمؤسسة الصحية مع مناطق الانتظار المناسبة، النظافة وإضاءة المكان بالإضافة إلى نظرة عامة ومظهر العاملين في مجال الصحة ومقدمي الخدمات. بينما تظهر أبعاد ضمان المعرفة والمجاملة لمقدمي خدمات الرعاية الصحية أعلى نسبة رضا. بالإضافة إلى ذلك، لم يتم الكشف عن أي اختلاف جوهري في الأبعاد المرضية المختارة بين مراكز الرعاية الصحية التي تقدم خدمات طب الأسرة مقارنةً بتلك التي لا تقدمها.

الاستنتاجات: أشرت الدراسة نقاط ضعف مهمة في بعض أبعاد رضى المريض بما في ذلك المظهر العام والاستجابة واللامبالاة والتأكيد. ومع ذلك ، فإنه يقدم دليلاً على عدم وجود فرق كبير للأبعاد المرضية المختارة بين مراكز الرعاية الصحية التي تقدم خدمات طب الأسرة مقارنة مع تلك التي لا تقدمها.

التوصيات: من خلال الكشف عن عدم وجود فروق ذات دلالة إحصائية في أبعاد رضى المريض بين مراكز الرعاية الصحية التي تقدم خدمات طب الأسرة وتلك التي ليس لديها خدمات متخصصة طب الأسرة ، تقدم الدراسة الحالية نفس التوصيات للأخذ بها لكلا النوعين من مراكز الرعاية الصحية في البصرة. وتشمل التوصيات الرئيسية التي خلصت إليها الدراسة: تحسين المظهر العام للبنية التحتية للمنشأة الصحية مع مناطق انتظار مناسبة للمراجعين مع ضرورة الاعتناء بالنظافة وإضاءة المركز بالإضافة إلى المظهر العام ومظهر العاملين الصحيين ومقدمي الخدمات.

الكلمات المفتاحية: رضا المريض، الرعاية الصحية الأولية، طب الأسرة، البصرة

INTRODUCTION

Patient satisfaction is defined as the total judgments made by the recipient of a healthcare as to whether -or not- their expectations have been met.^[1] It is an important measure of healthcare quality as it offers information on the provider's success to meet the clients' expectations and is a key determinant of patients' perspective behavioral intention.^[2] It is also a tool that is widely used in the health care field around the world.^[3] Satisfaction is a particular occurrence that could be elicited by asking simply how satisfied - or not-patients about the services provided. However, studies found that, asking the patients to rate their satisfaction is often tend to be highly positive and may not reflect their actual level of satisfaction.^[4] Therefore, using information from different resources including service providers, local health authorities and decision makers in addition to the patients themselves can better identify the overall patient's satisfaction compared to their expectations, and at the same time can identify the gaps in the available services.^[5] Globally, a number of patient satisfaction tools have been used to measure the different pieces of patient satisfaction.^[6] Likert scale is one of the most reliable ways to measure the client's satisfaction.^[7] It's a simple agree-disagree scale

that can be easily used by the patient to rate their level of satisfaction and it has been used widely all around the world in different aspects other than health services including industrial marketing, academic researches among many others.^[8] In addition, Cronbach's alpha has been widely used as an index of measuring the different dimensions of satisfaction especially for the reliability related ones. It has become a common measuring tool in the different fields of medical education and researches especially when more than one satisfactory dimension is being understudy at the same time.^[9] Different satisfactory dimensions had been used by researchers. Reliability, general appearance, responsiveness, trust, assurance and apathy were among these dimensions.^[10] Some researchers found that clients remark reliability as the most important one, followed by responsiveness. Others confirm that selecting and prioritizing the different satisfactory dimensions mainly depend on the type of industry / service being studied.^[11,12] On the other hand, correlating the socio-demographic characteristics of patients with their levels of satisfaction may help healthcare providers to meet the different needs of patients based on their gender, age, socio-economic status and other contextual factors, including the relationships between physician

and patient, which have a positive influence on patient satisfaction.^[13]

The Study aims and objectives:

- To measure the level of patient's satisfaction in primary health centers of Basrah governorate.
- To evaluate the relationship between different dimensions of patient's satisfaction and socio-demographic factors (gender, age and education).
- To compare patient's satisfaction between primary health centers that follow family medicine strategy versus general primary health centers.

METHODOLOGY

It's a cross sectional study involving patients attending primary health care centers in Basrah governorate during June 2016.

The study tools:

Standard check lists and questionnaires from Iraqi Ministry of Health/quality management department were used. Five main indicators of patient satisfaction were used. These include: appearance, credibility, responsiveness, assurance and apathy. Each main indicator consists of 5-8 questions. A total of 32 questions were included in the study. Some questions were added to measure the cause of attending and choosing each specified primary health care center; and if they have the choice in the future, what places they'll choose during their illness.

Sampling size:

All primary health care centers following family medicine strategy in Basrah governorate were included in the study (12 primary health care centers). Other general (non-family medicine) 12 centers were chosen from the same geographical area. Each primary health care center was visited for one day. All patients above 18 years old attended the primary health care center at the day of visit were included in the study. An exit interviews were done for the included patients by a well-trained team from Basrah Health Directorate. Total sample included 456 patients.

Data collection and analysis:

Four likert scale was used to measure the satisfaction of patient:

1. *Completely disagree*
2. *Disagree*
3. *Agree*
4. *Completely agree*

Data were analyzed by using SPSS version 22, reliability analysis (Cronbach's alpha) was conducted to establish the validity, internal consistency and reliability of the five dimensions of patient's satisfaction that include the following definition of each dimension:^[1]

1. *General appearance: Tangibles Physical structure of the health facility, equipment, and appearance of health care providers.*
2. *Trust: Ability of employees to gain trust and confidence.*
3. *Responsiveness: Willingness to help the patient and provide the needed service.*
4. *Assurance: Knowledge and courtesy of the health care service providers.*
5. *Apathy: Caring, individualized attention the firm provides its customers)*

Descriptive statistics (mean \pm 95% Confidence Intervals) was computed to summarize each dimension. The mean interval was 0.75 and readings were analyzed according to the following scale: Mean reading Degree of satisfaction

- 1-1.75: *Completely Not satisfied*
- 1.76 - 2.5: *Not satisfied*
- 2.6 - 3.25: *Satisfied*
- 3.26 - 4: *Completely satisfied*

The factors and interactions that were not statistically significant (indicated by P > 0.05)

RESULTS

In order to measure reliability, values of Cronbach's coefficient alpha for the total scale and for each dimension of patient satisfaction were calculated by the study and found to be exceeding the minimum standard (0.70) that was recommended by Rule of Thumb for

Cronbach's coefficient alpha value. ^[14] The lowest value of all can be observed in the "general appearance" dimension (Table-1). This dimension include the general infrastructural appearance for the health facility with

appropriate waiting areas for the attendees, cleanliness and lighting of the facility in addition to the general look and appearance of the health workers and service providers.

Table 1. Cronbach's coefficient alpha and total mean of each satisfactory dimension

| Dimensions | Cronbach's coefficient alpha | Mean |
|--------------------|------------------------------|------|
| General appearance | 0.90 | 3.1 |
| Trust | 0.92 | 3.1 |
| Response | 0.91 | 3.1 |
| assurance | 0.96 | 3.2 |
| Apathy | 0.95 | 3.2 |
| Total scale | 0.97 | 3.1 |

(Table-2), shows the percentage and mean of the five satisfactory dimensions in addition to the overall satisfaction. Most of the patients (86.18%) are found by the study "agree and completely agree" with the services provided (56.16%, 30.02% respectively) with a total

mean of 3.1. The general appearance was found to be of the lowest percentage of agreement (79.4%) with 3.1 mean while assurance dimensions show the highest percentage of satisfaction (93.8%) with a mean of 3.2.

Table 2. Percentage and mean of patient's satisfactory dimensions.

| | Percentage of respondent's answer | | | | Mean & SD | Median |
|--------------------|-----------------------------------|-----------------|--------------|-------------------------|-------------|--------|
| | <i>Completely disagree</i> | <i>Disagree</i> | <i>Agree</i> | <i>Completely agree</i> | | |
| General appearance | 1.6 | 19.0 | 54.8 | 24.6 | 3.1 0.64 | 3 |
| Trust | 0.6 | 16.4 | 52.9 | 30.1 | 3.1 0.61 | 3 |
| Response | 0.2 | 17.3 | 54.7 | 27.9 | 3.1 0.66 | 3 |
| Assurance | 0 | 6.8 | 60.7 | 33.1 | 3.2 0.58 | 3 |
| Apathy | 0.1 | 8 | 57.5 | 34.4 | 3.2 0.59 | 3 |
| Total Satisfaction | 0.46 | 13.5 | 56.16 | 30.02 | 3.1 0.61 | 3 |

According to the results represented in (Table-3), most of the patients (86.4%) are found by the study "agree and completely agree" with general appearance within the family medicine centers (58.6%, 27.8% respectively) with a total mean of 3.2. This is compared to 88% in the non-family medicine centers and a mean of 3.1. P value was found to be 0.3. P value for all the 5

dimensions of patient's satisfaction was found to be more than 0.05 with a closer result regarding the responsiveness dimension. Which means that there's no significant difference exists for the chosen satisfactory dimensions between the health care centers providing family-medicine services compared to those with non-family-medicine ones.

Table 3. Patient's satisfaction according to the type of PHCs.

| Dimension of satisfaction | Type of PHC | Percentage of respondent's answer | | | | Mean | P-value |
|---------------------------|-------------|-----------------------------------|------------|---------|--------------------|------|---------|
| | | Completely disagree % | Disagree % | Agree % | Completely agree % | | |
| General appearance | Family | 0.8 | 12.7 | 58.6 | 27.8 | 3.2 | 0.3 |
| | Non-Family | 0.61 | 11.35 | 55.51 | 32.53 | 3.1 | |
| Trust | Family | 0.7 | 19.1 | 56.7 | 23.5 | 3.2 | 0.3 |
| | Non-Family | 0.55 | 13.60 | 49.12 | 36.73 | 3 | |
| Responsiveness | Family | 0.27 | 6.31 | 18.69 | 7.76 | 3.1 | 0.09 |
| | Non-Family | 0.06 | 1.36 | 4.91 | 3.67 | 3 | |
| Assurance | Family | 0.3 | 21.7 | 57.1 | 20.9 | 3 | 0.3 |
| | Non-Family | 0 | 9 | 50.9 | 40.1 | 3.1 | |
| Apathy | Family | 0.42 | 11.1 | 50.19 | 33.07 | 3 | 0.3 |
| | Non-Family | 0.47 | 13.1 | 52.2 | 34.19 | 3.2 | |

(Table-4) represents patient's satisfaction according sex of respondents. Assurance and apathy were found to be with the highest means among the 5 dimensions of Patient's satisfaction for both male and female. While responsiveness

was found to be the lowest among both male & female too. A similar result was found for apathy and assurance according to all age groups included in the study (Table-5)

Table 4. Patient's satisfaction according sex of respondents.

| | Male | | Female | |
|--------------------|------|------|--------|------|
| | Mean | SD | Mean | SD |
| General appearance | 3.8 | 0.11 | 3.6 | 0.22 |
| Trust | 3.8 | 0.23 | 3.7 | 0.13 |
| Responsiveness | 3.6 | 0.5 | 3.4 | 0.5 |
| Assurance | 4 | 0 | 4 | 0 |
| Apathy | 4 | 0 | 4 | 0 |
| Total satisfaction | 3.84 | 0 | 3.74 | 0 |

Table 5. Patient's satisfaction according to age of respondents.

| | Less than 20 | | 20-29 | | 30-39 | | 40-49 | | 50 & above | |
|--------------------|--------------|-------|-------|-------|-------|-------|-------|-------|------------|-----|
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | S D |
| General appearance | 3.8 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 |
| Trust | 4 | 0 | 3.8 | 0.28 | 3.7 | 0.08 | 3.8 | 0.17 | 4 | 0 |
| Responsiveness | 3.6 | 1.13 | 3.7 | 0.46 | 2.8 | 0 | 4 | 0 | 3.6 | 0 |
| Assurance | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 |
| Apathy | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 | 4 | 0 |
| Total satisfaction | 3.8 | 0.226 | 3.9 | 0.148 | 3.7 | 0.016 | 3.96 | 0.034 | 3.92 | 0 |

DISCUSSION

Access to healthcare services in addition to improving the quality of services provided are important factors for patient satisfaction. This should include basic package of primary health care services including antenatal care and vaccination in addition to emergency ones.^[15] Along with what is stated by the Healthy People 2020,^[16,17] guaranteeing accessibility to health care services is crucial for ensuring patient satisfaction. This include:

- *Improving the general physical, social, and mental wellbeing*
- *Disease Prevention*
- *Better management (including early detection and treatment of diseases)*
- *Better quality of life*
- *Decrease mortality rates.*
- *Improving life expectancy*

By calculating the Cronbach's coefficient value in the present study, it was clear that patient's assurance had the highest level of satisfaction compared to the lowest reported for the general appearance. In a cross sectional study done to discover the factors affecting patient Satisfaction in Primary Healthcare Centers in 2013 in Saudi Arabia,^[1] a similar approach to the present study was conducted using six satisfactory dimensions in addition to measuring Cronbach's alpha factor for reliability of the selected satisfactory dimensions.^[1] The data were collected from a similar sample size of the present study (453 patients attending Primary Health Care Centers in Hail City) and revealed a mean score of 3.60 (on a scale from 1 to 5) for the overall satisfaction level. The highest satisfactory dimension was reported accessibility to medical care and the availability of doctors.^[1] In another study involved 700 patients in the city of Al-Riyadh, revealing an overall satisfaction level of 64.2% which is less than the results reported by the present study.^[18] Furthermore, advanced models of delivering primary health care are being implemented in

various countries of the world through the development of family medicine.^[19] Patient's opinion and satisfaction of the health care provided is considered an important evaluation tool for the health systems anywhere in the world.^[20] According to the results reported by a study done in Turkey in 2013 to explore whether introducing the family medicine model in Turkish health system could attain the principal roles of primary care and have an incorporated part in the Turkish health care system, it was shown that the family medicine model in Turkey is incapable to run a appropriate configuration to participate efficiently in improving the health care services.^[21] This come in coherence with our study findings as no significant difference was revealed for the chosen satisfactory dimensions between the health care centers providing family-medicine services compared to those with no family-medicine ones. In another research study conducted in Turkey during 2010 on 34.472 patients measuring the "patient satisfaction in primary health services" by ministry of health, It was reported that the rate of the patient satisfaction is 82% in the cities where family medicine model is applied.^[22]

Conclusions and recommendations:

The study remarks important weaknesses in some of the patient satisfactory dimensions including general appearance, responsiveness, apathy and assurance. However, it provide an evidence of having no significant difference for the chosen satisfactory dimensions between the health care centers providing family-medicine services compared to those with no family-medicine ones. The main recommendations made by the study include: improving the general infrastructural appearance for the health facility with appropriate waiting areas for the attendees, cleanliness and lighting of the facility in addition to the general look and appearance of the health workers and service providers.

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