

## RESEARCH ARTICLE

# Client Characteristics and Satisfaction with the Quality of Primary Health Care Centers Services in Babylon Governorate, Iraq

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Received: 7th February, 2021; Revised: 11th April, 2021; Accepted: 27th May, 2021; Available Online: 25th June, 2021

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## ABSTRACT

**Background:** Health care service quality plays a crucial role in patient satisfaction and is also one of the most significant quality improvement steps.

**Objectives:**

1. To assess client's satisfaction towards the efficiency of primary health care centers services in Babylon Governorate.
2. To the assessment of client's satisfaction with the infrastructure of primary health care centers.
3. To find out the association between total satisfaction score and language expression emoji for clients.

**Subjects and Method:** This is a descriptive, cross-sectional study conducted at 23 randomly selected (multistage sampling technique) primary health care centers in Babylon governorate. Data were collected during the period extended (December 2020 to March 2021) using a questionnaire to assess the client's satisfaction with the service and use of the direct method of interview (face to face), which lasts for 20–25 minutes. The descriptive statistical data analysis approach (SPSS-27) includes frequencies, percentages, mean of scores, range (minimum-maximum values) approach that includes Chi-square test.

**Result:** The current study was conducted on 460 clients with age groups ranging from 18–63 years, and the highest percentage (47%) were from the 20–29 years age group with an age group  $32.8 \pm 11.2$ . While highest percentage 30.2% from a level of education clients primary school graduation, but (40.9%) housewife's occupation. With regard to the social situation, the majority of the sample are married and represent 355 (77.2%) of the entire sample. The overall satisfaction to health care services delivered was unsatisfied at percent were 49.6%.

**Conclusions:** According to the present findings, the study concluded that the client's satisfaction score reveals 175 (38.0%) who reviews primary health care centers in Babylon Governorate were satisfied to some extent regarding the efficiency of primary health care centers services and unsatisfied regarding infrastructure.

**Recommendation:** Further studies that can be conducted to involve a national level to assess the health care services and to compare the health care services provided at rural and urban primary health care centers and there was a remarkable concern for the improvement of structural features (such as the state of toilet facilities, drug availability, availability of working fans, and availability of seats in the waiting room).

**Keywords:** Babylon Governorate, Client Satisfaction, Efficiency of Health Services.

International Journal of Pharmaceutical Quality Assurance (2021); DOI: 10.25258/ijpqa.12.2.01

**How to cite this article:** Khairullah ZA, Rashid BA, Shwiehk RS. Client Characteristics and Satisfaction with the Quality of Primary Health Care Centers Services in Babylon Governorate, Iraq. International Journal of Pharmaceutical Quality Assurance. 2021;12(2):1-5.

**Source of support:** Nil.

**Conflict of interest:** None

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## INTRODUCTION

Quality services gives sustainable competitive advantage –as a critical factor in patient satisfaction.<sup>1</sup> And the health care service quality plays a crucial role in patient satisfaction also as one of the most significant quality improvement steps.<sup>2</sup>

Clients satisfaction was found to be associated with efficiency and duration of care as well as the empathy and communication with the health care providers.<sup>3</sup> Therefore, it is an important aspect of assessing the quality of patient care received at health care facilities globally.<sup>4</sup> Satisfied clients

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are more likely than unsatisfied ones to continue using health care services, maintain their relationships with specific health care providers, and comply with care regimens and advice.<sup>5</sup> A satisfied patient perceives high quality, and the antecedents of loyalty are service quality.<sup>6</sup>

Generally, considered as the extent to which the patients feel that their needs and expectations are being met by the services provided, and the conclusion focused on the importance of waiting time between registration and consultation for the patient as having an impact on the overall patient satisfaction.<sup>7</sup>

## OBJECTIVES OF STUDY

1. To assess client's satisfaction towards the efficiency of primary healthcare centers services in Babylon Governorate.
2. Find out the association between client satisfaction score and language expression of emoji.
3. Assessment of client's satisfaction with the infrastructure of primary health care centers.

## MATERIALS AND METHODS

*Study design:* This is a Cross-Sectional Study with analytical methods. We carried out in primary health care centers in Babylon governorate.

*Duration of the Study:* The data collection extended from 13<sup>th</sup> December 2020 and ending to 30<sup>th</sup> March 2021.

*Place of Study:* The study was conducted in primary health care centers, which provided primary health care services in Babylon governorate.

*Study Sample:* It included 460 participants (male and female) who attended to PHC Centers in Babylon governorate.

### Data Collection

By direct face-to-face interview personally with the respondents utilized the health care services provided by the health care service provider with their questions about items of the questionnaire, through use of Arabic detailed questionnaire form, depending on the questionnaire Iraq Ministry of Health, Department of Public Health and developed by the researcher which depends on an extensive review of the relevant literature of previous similar studies and modified after reviewing by supervisors and the expert's panel. Included details on demographic characteristics of respondents, socio-economic characteristics, Type health care utilization, and satisfaction-related questions towards the primary health care services.

### Statistical Analysis

Data was tabulated on Microsoft Office Excel 2016 and analyzed by using the available statistical package of SPSS-27 (Statistical Packages for Social Sciences-version 27). Data were presented in simple measures of frequency, percentage, mean, standard deviation, and range (minimum-maximum values). The significance of different percentages (qualitative data) was tested using Pearson Chi-square test with Yate's correction or Fisher Exact test whenever applicable Statistical significance was considered whenever the p-value was equal or less than (0.05).

## RESULTS

### 1- Socio-Demographic Characteristic of Participants

Table 1 reveals that 27.4% of the study sample are within the second age group (20–29) years old. Regarding gender, the majority of the study sample (64.8%) were female, and the remaining is male. Concerning their residence (55.7%) urban

**Table 1:** Distribution of clients sample according to socio-demographic characteristics (N=460).

Variables	Category	N = 460	%
Age (Years)	<20 years	13	2.8
	20–29	218	47.4
	30–39	119	25.9
	40–49	57	12.4
	50–59	39	8.5
	≥ 60 years	14	3.0
	Total	460	100
	Mean ± SD (Range)	32.8 ± 11.1 (18–68)	
Gender	Male	162	35.2
	Female	298	64.8
	Total	460	100
Residence	Rural	204	44.3
	Urban	256	55.7
	Total	460	100
Marital Status	Single	82	17.8
	Married	355	77.2
	Divorced/ Separated	16	3.5
	Widowed	7	1.5
	Total	460	100
Educational level	Illiterate	22	4.8
	Read & write	31	6.7
	Primary	139	30.2
	Intermediate	70	15.2
	Secondary	62	13.5
	College/Institute	120	26.1
	Higher education	16	3.5
	Total	460	100
Occupational Status	Unemployed	37	8.0
	Governmental employee	123	26.7
	Self-employed (free job)	53	11.5
	Housewife	188	40.9
	Retired	9	2.0
	Not working	28	6.1
	Student	22	4.8
	Total	460	100
	Economic Status (Monthly Income)	Insufficient	220
Sufficient to Some Extent		120	26.1
Sufficient		120	26.1
Total		460	100

and education level, the study results indicate that (30.2%) of the study sample are primary school. In addition to the study sample occupation, the results indicate that (40.9%) are a housewife. Concerning socio-economic status, the study indicates that (47.8%) are insufficient monthly income.

**2- Satisfaction with the Efficiency of Primary Health Care Services domain**

**3- Association between overall client’s satisfaction score and emoji expressions:**

Is it time to start using emojis in biomedical literature? Integrating emoji into the scientific literature would be advantageous in several obvious areas, such as modulating the emotional tone of communications. In editorials and letters to editors, they may serve a great purpose by introducing inflection and subtext in a manner not previously possible.<sup>8</sup>

Table 3 regards the association between total satisfaction score and emoji; in this study, findings show a significant association between the client’s satisfaction with health care services and their language of expressions (emoji) at a p-value

of more than 0.05 (p = 0.0001). Where highly percentage (75.6%) were satisfied in total satisfaction score were satisfied in language expression of emoji. Also 62.3% were unsatisfied in total satisfaction score were unsatisfied emoji.

**4- Clients Satisfaction regarded the Infrastructure of PHC centers domain:**

**DISCUSSION**

**1- Socio-demographic Characteristic of Participants**

The study results indicate that the majority of the study sample, 47.4% were within the first age group (20–29) years old, at mean ± SD of their ages was 32.8 ± 11.1(18–68) and More than two-third (64.8%) out a total number of the study sample is female and the remaining is male. The present study is concurrent with a study done by Almutairi in Saudi Arabia, show the majority of the participants, 56% were in the age range (18–30) years old and 57% of study sample were female.<sup>9</sup> In another study of Almoajel and others (2014) who have studied patient’s satisfaction with primary health care in Jubail City,

**Table (2):** Distribution of study sample according to satisfaction with the efficiency of primary healthcare services domain:

Client Satisfaction with the Efficiency of Primary Health Care Services items		Client Response					
		Unsatisfied		Satisfied to Some extent		Satisfied	
		Freq.	%	Freq.	%	Freq.	%
1	Satisfied with the quality of health care services provided in the health center.	178	38.7	132	28.7	150	32.6
2	Feel confident during the treatment in health center	169	36.7	150	32.6	141	30.7
3	During your visit, how were dealing by the doctor?	91	19.8	94	20.4	275	59.8
4	During your visit, how were dealing by the other staff (health and service staff)?	82	17.8	113	24.6	265	57.6
5	Satisfied with the communication, coordination skills between the health staff in the health center	114	24.8	96	20.9	250	54.3
6	Satisfied with the attentive of the medical and health staff in health problem	202	43.9	125	27.2	133	28.9
7	Overall, Satisfied with the time that have spent in the health center for receiving the health care you needed	226	49.1	116	25.2	118	25.7
8	Satisfied with the costs for the examination and treatment	73	15.9	43	9.3	344	74.8
9	Satisfied about your confidence with efficiency the medical and health staff in the health center	131	28.5	123	26.7	206	44.8
10	Healthy Staff explains your health problem in an understandable manner	169	36.7	117	25.4	174	37.8
Clients Satisfaction Score Mean ± S.D (Range)		21.4 ± 5.1 (10-30)					

**Table 3:** Association between total client’s satisfaction score and emoji regarding the assessment of health care services

The language of expressions (Emoji)	Total Satisfaction Score						P value
	Unsatisfied		To some extent satisfied		Satisfied		
	Freq.	%	Freq.	%	Freq.	%	
Unsatisfied	142	62.3	57	30.5	2	4.4	0.0001* S
Satisfied to some extent	60	26.3	73	39.0	9	20.0	
Satisfied	26	11.4	57	30.5	34	75.6	

\*Significant difference between percentages using Pearson Chi-square test (χ<sup>2</sup>-test) at 0.05 level.

**Table 4:** Distribution of study sample according to clients satisfaction regarded the infrastructure of PHCC domain

	<i>Infrastructure of PHCC items</i>	<i>Client Response</i>					
		<i>Unsatisfied</i>		<i>Satisfied to some extent</i>		<i>Satisfied</i>	
		<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>	<i>Freq.</i>	<i>%</i>
1	How Would him\her assess the external building of primary health care center	226	49.1	106	23.0	128	27.8
2	How Would him\her assess the internal building of primary health care center	205	44.6	145	31.5	110	23.9
3	How Would him\her assess the cleanliness of the primary health care center	186	40.4	172	37.4	102	22.2
4	Clear signs and directions to indicate where to go in the services area and easy to follow.	160	34.8	121	26.3	179	38.9
5	How Would you assess your convenience for accessibility with primary health care center location	193	42.0	114	24.8	153	33.3
6	How Would you assess the lighting in the health center	187	40.7	145	31.5	128	27.8
7	How Would you assess the waiting area, Sitting Chairs for patients and relatives	201	43.7	149	32.4	110	23.9
8	Furniture of PHC center	242	52.6	135	29.3	83	18.0
9	Diagnostic tools and devices are available (sufficient for meet clients' needs)	216	47.0	156	33.9	88	19.1
10	Ventilation is good inside PHC center	190	41.3	141	30.7	129	28.0
11	Satisfied regarding the presence of awareness materials (posters, folders, health education videos)	183	39.8	150	32.6	127	27.6
12	Availability of clean and healthy toilets in health center	232	50.4	161	35.0	67	14.6
13	Presence of organized garden in health center	250	54.3	151	32.8	59	12.8
Infrastructure of PHCC Score Mean $\pm$ S.D (Range)		23.4 $\pm$ 6.4 (13-39)					

Saudi Arabia. Their findings disagree, indicate that two-third of the study sample is male (73.5%), and the remaining is female.<sup>10</sup> Regarding the socio-economic status, the study results showed that most of the study sample (47%) have low socio-economic status. In a study by Al-Sadaway (2020), the results indicate that the majority (49%) of those reviewing to primary health care centers are insufficient socio-economic status.<sup>11</sup> The study results regarding occupation indicate that more of them are housewives, which showed that 41%. This result disagreed with finding previous studies done in Jahrom (Iran) Zare et al., 2015, which found that the percent of housewives attending for PHC center was 78%.<sup>12</sup> Concerning their education, this study demonstrates that (30%) of clients were primary school graduates; these results were higher than findings of the previous study which found that (16%) of clients were primary school visited PHC center.<sup>13</sup>

## 2- Satisfaction with the Efficiency of Primary Health Care Services Domain

In Table 2, based on the findings among the investigated domains, the current study demonstrated that the overall client satisfaction score about efficiency health care services were satisfied to some extent (38.0%), this result disagrees with another survey that was done by Radhi<sup>13</sup>, which showed

that the client satisfaction regarding health services provided was satisfied (80.5%). It is difficult to interpret these wide differences in range without adequate information about many aspects, such as study methodology and populations sample; health systems characteristics, socio-cultural values, and attitudes, aspects of this domain. A high percentage of clients (49.1%) were unsatisfied with the time spent in the health center receiving the health care services. Which was similar to the result of the study that was done in Al-Nasiriya.<sup>11</sup> Which showed (65%) were unsatisfied about waiting time. Long waiting time due to lack of health care provider in PHC center, this was documented by the study of Kareem & Alalawe, 2020<sup>14</sup> in Babylon province that shows (78.3% and 91.3%) of PHCCs were fair regarding the presence of medical staff and health personnel according to standards respectively. In term of costs of examination and treatment, primary health care is relatively inexpensive; about (74.8%) were satisfied, this result was agreeing with the study done in Al-Ramadi City.<sup>15</sup>

## 3- Clients Satisfaction Regarded the Infrastructure of PHC Centers Domain

As reported by our study, the infrastructure domain was a relatively unsatisfied score at a percentage (62.0%). The Poor Satisfaction with buildings in our study may be because most

of PHC center buildings were old and the rebuilding fairly of the primary health care in Babylon governorate. These results disagree with the results of Yaseen<sup>16</sup>, who find that most clients are satisfied with the general appearance of the PHC center. Regarding furniture, sitting chairs in the waiting area, and cleanness, a high percentage of clients are unsatisfied (52.6, 43.7, and 40.4%). These results disagree with the resulting study done in Sudan by Ahmed, the finding of this study was (64.7, 70.2, and 72.7%), for cleanness, furniture, and seats at PHCC, respectively.<sup>17</sup> There are two possible reasons for this result, the first is the lack of a sufficient number of cleaning and maintenance workers to repair some of the seats consumed and, the second is that most health centers are not equipped with basic furniture due to the lack of financial abundance. These results indicated that (41.3%) of the clients dissatisfied with ventilation inside PHC center. This agreed when compared with the finding of the previous study done in Al-Ramadi City,<sup>15</sup> which showed (38.3%) of clients express poor ventilation.

## CONCLUSION

The most of client's satisfaction score reveals that the majority were 38.0%, who review primary health care centers were satisfied to some extent regarding efficiency primary health care centers services and regarding infrastructure, 62.0% were unsatisfied.

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