

# Quality Assessment for Health Promotion Services in Primary Health Care Centers at Southern of Babylon Province

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## Abstract

**Background:** Health promotion was defined as enhancing a person's living, working, and physical surroundings as well as her/his education and leisure, which is clear as insuring her/his health. It is a planned, system-wide effort that touches on a person's life. The value of quality, the cornerstone of the healthcare system, is rising quality underlies the capacity of the industry to progress and promote health, which positively influences and enhances patient happiness. **Objectives:** To assess the quality of health promotion services in primary health care center. Identify the appropriate structure for health promotion services in primary health care centers, and to identify clients' satisfaction toward health promotion services in primary health care centers. **Materials and Methods:** Descriptive cross-sectional study design has been made in the primary health care centers in Southern Babylon Province, Iraq, from 9 November 2022 to 10 June 2023. The data collection was conducted by self-report questionnaire and observation, which includes (10) primary health care centers, (60) health workers, and (240) clients who visit the primary health care center to receive health care services. **Results:** The results of the study found that most of primary health care centers (70%) have fair infrastructure and services score. The total result of the health workers' job performance, as the total mean was (2.07), where the Fair was the highest percentage (45%). **Conclusion:** The assessment of quality of primary health care center organization (structure) find lack of the financial resources and shortage health care provider in health promotion units that must be available to support the implementation of the program and achieve its requirements.

**Keywords:** Assessment, health promotion, primary health care center, quality

## INTRODUCTION

Primary healthcare center (PHC), as defined by Alma-Ata, was "essential health care based on practical, systematically sound and socially suitable methods and technology made universally available through people's full participation and at a budget that the community and country can give. It is the central function of the health system and it is the first level of contact, bringing health care as close as possible to where people live and work."<sup>[1]</sup> A comprehensive policy like the Health Promotion Services could improve an outcome because one of primary health care's goals is to increase health quality.<sup>[2]</sup>

In 1945, the term (health promotion) was first used by Swedishman Henry E. Sigerist. Improving a person's living, working, and physical environments as well as their education and leisure, is described as ensuring their health. It is a planned, system-wide effort that touches on

a person's life.<sup>[3]</sup> The value of quality, the foundation of the healthcare system, is increasing. Quality underpins the ability of the industry to advance and promote health, which favorably impacts and raises patient satisfaction. In order to produce health, quality necessitates maximizing practitioner competence and material inputs.<sup>[4]</sup> Health quality is "the extent to which health services for individuals and populations increase the likelihood of desired health outcomes and are congruent with current professional knowledge," according to the Institute of Medicine in Washington.<sup>[5]</sup>

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Donabedian used literature on health-related subjects to create the framework for quality evaluation and the proposed approach, which is made up of three essential components: structure this entails evaluating the sufficiency of resources, such as structures and equipment, organizational procedures, and the quantity and caliber of medical professionals.<sup>[6]</sup> Process: this refers to adhering to the guidelines for providing high-quality medical care, which includes taking a patient's clinical record, performing a physical assessment, ordering diagnostic procedures, etc., and making sure the patient is satisfied with the care received. These behaviors, which include altering one's lifestyle, learning about one's health, speaking out for oneself, and advocating, show how well local health professionals perform in various areas.<sup>[7]</sup> Outcome: investigates if an individual's current or future health condition can be linked to how they obtained medical care. A further method for evaluating the influence of the healthcare system on population health is to measure communicable and chronic conditions, as well as health quality.<sup>[6]</sup>

Iraq is one of the countries that has experienced an exceptionally high level of chronic and communicable diseases, as well as an infant mortality rate as a result of medical conditions and unfavorable environmental conditions, as a result of policies, wars, and the economic embargo that started in 1990 and lasted until 2003 after the US invasion. Wars and political turmoil caused morbidity and death rates to deteriorate and rise.<sup>[8]</sup> Iraq views non-communicable diseases as one of the most significant public health issues. The statistics of the Ministry of Health showed that cardiovascular diseases, cancerous diseases, diabetes, and chronic respiratory diseases constitute 50% of the causes of death. And the premature death rate for ages (30-<70 years) (reaches about 300/100,000) of the population due to this disease. Studies have also shown that it constitutes about half of the health years lost in society. The early detection system in primary health care centers showed that 20,000 new cases of hypertension for ages 20 years and over were recorded annually, and 8,000 new cases of high blood sugar for ages 40 years and over annually.<sup>[9,10]</sup>

## MATERIALS AND METHODS

### Design and sampling

Descriptive cross-sectional study design has been performed in the primary health care centers in Southern Babylon Province. From 9 November 2022 to 10 June 2023, a convenience (non-probability) sample is made up of 10 primary health care centers, 60 health workers who are working at health promotion units, and 240 clients who are beneficiaries from health promotion services.

### Data collection

The data were collected by using a questionnaire that was given to health workers and clients as a self-report, and for structure, it was done by observation and interview with the

director of the health center, which was adopted as a tool for data collection. The questionnaire includes three parts; the first part was the assessment of the infrastructure and services of primary health care center. The second part is socio-demographical data and assessment of the job performance of health workers. The third part includes socio-demographical data of clients and an assessment of their satisfaction with the quality of health promotion services provided by primary health care centers. And the triple Likert scale (satisfied = 3, neutral = 2, unsatisfied = 1) was used to determine the answers of health workers and customers, while (yes = 2, no = 1) was used in the part related to the infrastructure and services of the health center.

### Data analysis

The analysis was made on the data obtained from the study sample using the program Statistical Package for Social Sciences (SPSS) version 26.0, developed by IBM (Armonk, NY, USA) for data management, advanced analytics, multivariate analysis, business intelligence, and forensic investigation. The method used in this program aimed to find out the descriptive and inferential statistics such as frequencies, percentages, Pearson correlation, and linear regression by entering data in order to achieve the objectives of the study.

### Ethical approval

The study was conducted in accordance with the ethical principles that have their origin in the Declaration of Helsinki. It was carried out with patients verbal and analytical approval before sample was taken. The study protocol and the subject information and consent form were reviewed and approved by a local ethics committee according to the document in dated March 20, 2023 to get this approval.

## RESULTS

### Part one: primary health care center information

The results reveals that most Primary health care center (10 centers) contain fewer health workers than the number demanded to be available according to the standards, while only (two centers) have the number of health workers according to the standards [Figure 1].

The results of the study on 10 primary health care center found that most of them (70%) have fair infrastructure and services, whereas there was only one primary health care center out of 10 that had most of the standard characteristics (23 scores). Even there were two primary health care centers with weak services and infrastructure, they achieved scores of 4 and 7 only [Figure 2].

### Part two: health worker information

Table 1 depicts the characteristics of 60 health workers' participants. The trained was more dominant among

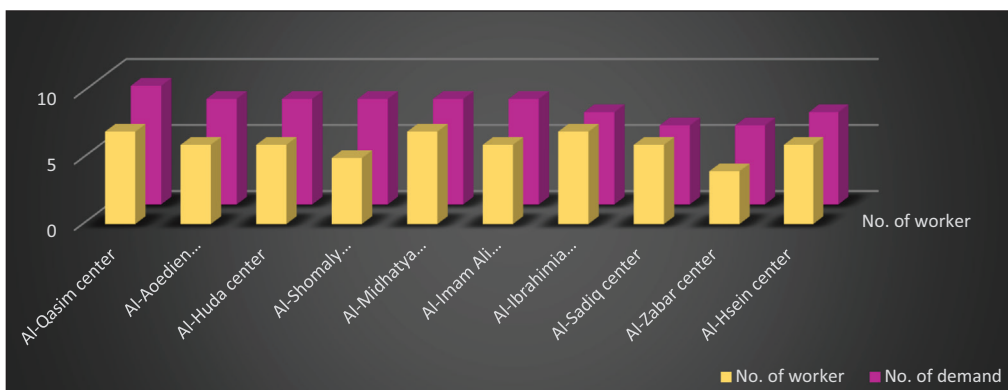


Figure 1: Number of health workers and the demanded number according to standards

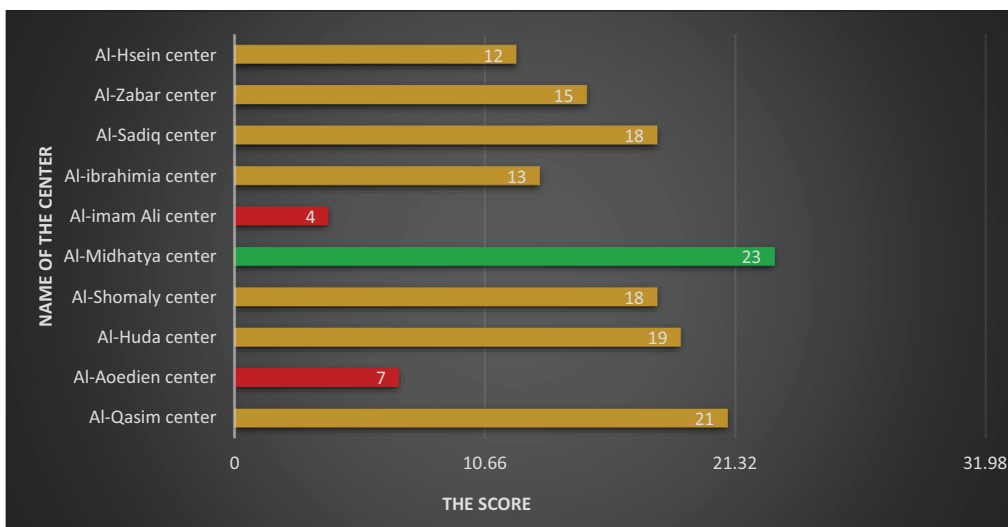


Figure 2: The assessment of infrastructure and the services of primary health care centers

the study sample with a percentage of 100%. And 80% of them were married compared to 20% of them who were single. At the same time, men constitute the most significant number of the study group (53.3%), whereas the age group 24-33 is the largest age group (40%). Moreover, 51.7% of them had their educational level just a diploma. The results revealed that 51.7% are diplomas in community health. The years of experience (41.7%) were from 1 to 5 years.

Figure 3 shows the total result of the health workers' job performance, as the total mean was 2.07, where the fair was the highest percentage (45%).

### Part three: the information of customers

#### Part three: customers information

Table 2 reveals that most of the study sample of customers age the majority of customers fall in age is 28-37 years, which accounted for 35.8%. While depicting that most of the customers' education level is diploma, bachelor's, or postgraduate studies graduates which accounted for (28.3%) whereas customers' gender reveals that the majority of customers are women which accounted for

61.3%. The study presents that the majority of customers are married accounting for 73.8%. And also most of the samples were jobless 43.8%. And the majority of customers who visit the primary health care center came for the purpose of prevention with a percentage 67.5%.

Figure 4 shows the total score of customer satisfaction where was the overall mean of the responses of customers is (1.9002) according to Likert scale.

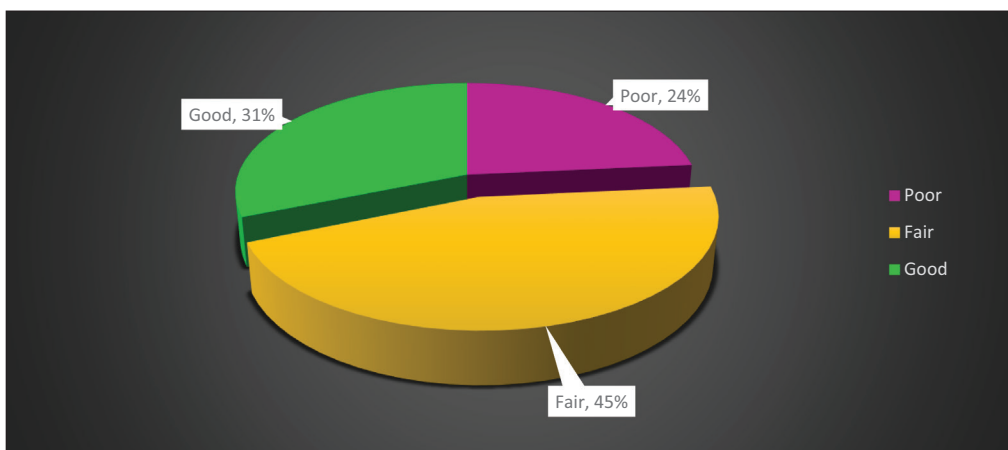
Statistical analysis of the results and by using regression showed that there is a significant relationship between the level of customer satisfaction and the quality of services together with the infrastructures of primary health care centers, at  $P \leq 0.05$  [Table 3].

From the results obtained it was found that there is a significant association between the satisfaction of customers with health workers' performance, according to the statistical analysis (regression) at  $P \leq 0.05$  [Table 4].

Table 5 reveals that there is a statistically significant "correlation" between the satisfaction of customers with infrastructure and health worker performance at  $P \leq 0.05$ , where according to Pearson correlation test, the

**Table 1: Frequency and relative frequency distribution of the study sample according to demographic characteristics of health workers (n = 60)**

Health worker information	Subgroup	f	%
Age	24-33	24	40.0
	34-43	22	36.7
	44-53	10	16.7
	54 and above	4	6.7
Gender	Male	32	53.3
	Female	28	46.7
Residence	Urban	36	60.0
	Rural	24	40.0
Educational level	Diploma	31	51.7
	Bachelor's degree	29	48.3
	Postgraduate degree	0	0
Marital status	Single	12	20.0
	Married	48	80.0
	Widowed	0	0
	Divorced	0	0
Years of experience	1-5	25	41.7
	6-10	17	28.3
	11-15	15	25.0
	16-20	3	5.0
Specialization	Bachelor's in community health technology	22	36.7
	Environmental sciences	1	1.7
	Diploma in community health	31	51.7
	Nurse	6	10.0
Training	Trained	60	100.0
	Untrained	0	0
	Total	60	100.0



**Figure 3:** The level of job performance of health workers

P-value was 0.000 for all extremities. This means that with an increase in the level of services and the quality of infrastructure in primary health care centers, the level of customer satisfaction will increase, and this also applies to the level of job performance of health workers.

## DISCUSSION

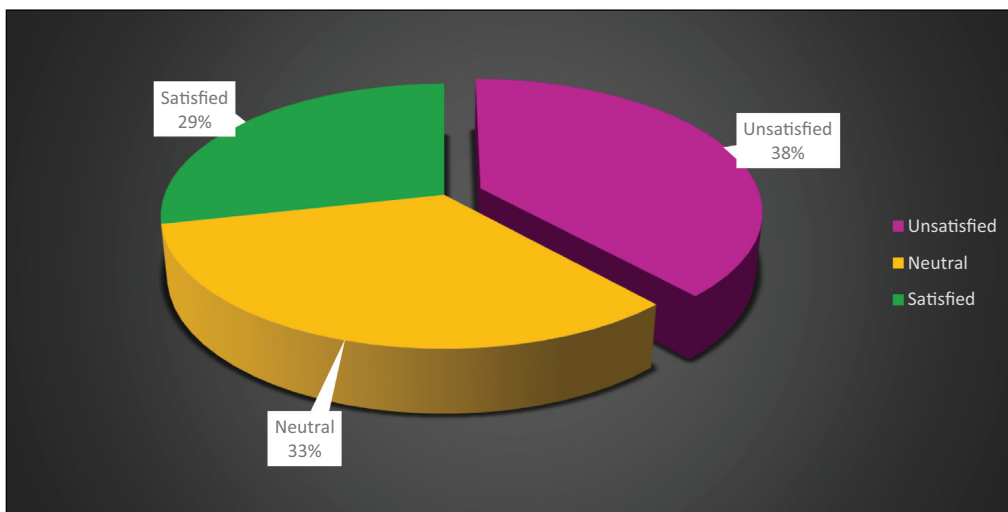
Health promotion is a guide to promoting the health of the community and enabling people to control their

lifestyle and habits. In the meantime, medical personnel who provide services should receive adequate training in communication skills, change of society behavior, teaching methods, and healthy lifestyle.<sup>[11]</sup>

The results of the study found that most of the centers had a shortage in the number of health workers. The reason for the shortage in the number of health workers is that the management in the primary health care centers concentrates on the number of health workers in the most

**Table 2: Frequency and relative frequency distribution of the study sample according to demographic characteristics of customers (n = 240)**

Characteristics		f	%
Gender	Male	93	38.8
	Female	147	61.3
Age	18-27	59	24.6
	28-37	86	35.8
	38-47	51	21.3
	48 and above	44	18.3
Level of education	Illiterate	53	22.1
	Educated	49	20.4
	Elementary	25	10.4
	Intermediate & high school	45	18.8
Marital status	Diploma, bachelor's, or postgraduate studies	68	28.3
	Single	43	17.9
	Married	177	73.8
	Widowed	18	7.5
Residence	Divorced	2	.8
	Urban	116	48.3
	Rural	124	51.7
Occupation	Government employee	64	26.7
	Freelance job	71	29.6
	Jobless	105	43.8
Reason for visit	For the purpose of treatment	78	32.5
	For the purpose of prevention	162	67.5
	Total	240	100.0



**Figure 4:** The overall of customer satisfaction.

effective units that are reviewed by customers in greater numbers. The current results agree with a previous study conducted at the University of Baghdad “conduct to evaluate the Maternal and Child Health services.” This study included 22 health centers in Baghdad and found that the shortage in the number of health workers is about 50% of the actual number.<sup>[12]</sup>

The results of the current study found that most of the centers were evaluated as fair, two were evaluated as poor,

and only one was good out of 10 primary health care centers, and these results were consistent with the results of a study conducted in Baghdad on 42 health institutions in Iraq “Evaluation of Health Promotion Standards in the Iraqi Teaching Hospitals,” where the results of the study showed that the infrastructure The services of most health institutions were of medium quality with a mean ( $M = 2.9 \pm 1.4$ ).<sup>[13]</sup> The findings of the present study did not agree with a study carried out in Basra for 10 primary healthcare centers titled “Evaluation of Quality Assurance

**Table 3: Effect of infrastructure and services of primary health care center on customer satisfaction**

Model	Sum of squares	df	Mean square	F	Sig.
Regression	0.652	1	0.652	21.869	0.000*

Sign\* at  $P < 0.05$

**Table 4: Effect of the health workers' performance on customers' satisfaction**

Model	Sum of squares	df	Mean square	F	Sig.
Regression	1.6880	1	1.6880	38.050	0.000*

Sign\* at  $P < 0.05$

**Table 5: The correlation between the center, health workers, and customers' satisfaction according to Pearson correlation**

Correlations		Satisfaction	Centers	Workers
Satisfaction	Pearson correlation	1	0.290**	0.371**
	Sig. (2 tailed)		0.0000	0.0000
	N	240	240	240
Centers	Pearson correlation	0.290**	1	0.676**
	Sig. (2 tailed)	0.0000		0.0000
	N	240	240	240
Workers	Pearson correlation	0.371**	0.676**	1
	Sig. (2 tailed)	0.0000	0.0000	
	N	240	240	240

Sign\* at  $P < 0.05$

at Main Primary Health Care Center in Basra City,” where the mean of the quality of the total infrastructure was 42.2 and the quality of the structures was at the highest level for most centers.<sup>[14]</sup>

The overall results of the health workers' performance indicated that the performance of health workers in the primary health care center in the south of Babylon Governorate was of fair quality, with a mean of 2.07 according to the Likert scale, and these results were in agreement with the results of a study conducted at Al-Anbar, to assess the quality of primary healthcare with respect to structure, consumer and care provider satisfaction, involving 600 clients and 150 care providers in Al Ramadi.<sup>[15]</sup> However, the results disagree with the results of a study conducted in the province of Baghdad, in which a multi-stage probability sample consisting of (36) health care centers was selected. The sample includes (12) typical centers, (12) urban centers, and (12) rural centers. The results were in this study showed that most of the health workers' performance was of high-quality, and this difference in the results is due to the fact that the researcher used special criteria in selecting the centers, and the research methodology was different in several aspects in evaluating the services.<sup>[16]</sup>

Statistics showed the level of customer satisfaction was at a fair level. The results of the current study are consistent with a study conducted to assess the quality of primary healthcare with respect to structure, consumer and care provider satisfaction, involving 600 clients and 150 care

providers in Al Ramadi, West of Iraq. And its results were consistent with the current study in terms of ease of access and visiting the center next time and in terms of maintaining privacy, while it was not consistent in certain aspects such as the cleanliness of the place and the efficiency of the waiting room or seating, and also in terms of advice and health education.<sup>[15]</sup> The reason for the difference in the results is due to the criteria by which the health centers were selected and that the study area is different, as the researcher used in the previous study a different methodology in terms of selecting samples.

The current study showed, using regression and the Pearson coefficient in the statistical analysis, that there is a significant relationship between the level of customer satisfaction and the quality of the infrastructure and services provided in the primary health care centers, where the  $P$  value was equal to 0.00, as the health centers were of a high degree in the evaluation. The evaluation was conducted through the questionnaire, which showed that clients had the highest level of satisfaction and indicated a higher desire to visit the same health center. And this result was in agreement with most of the studies conducted for the purpose of measuring the level of satisfaction among customers, such as the study<sup>[17]</sup> that was conducted in the city of Umm El-Bouaghi in Algeria found there is a significant correlation between the quality of services and the level of customer satisfaction, as the higher the quality of services and the infrastructure of the health institution, the level of customer satisfaction increased with it.

And another study was conducted in Saudi Arabia to measure the effect of job performance on the level of quality of services provided at King Salman Specialist Hospital in the city of Hail, and by using regression and Pearson coefficient in statistical analysis, there was a significant correlation between the extent of health workers' satisfaction and the quality of services provided, and therefore affects customer satisfaction with the services provided.<sup>[18]</sup>

## CONCLUSION

The assessment of quality of primary health care center organization (structure) found lack of the financial resources and shortage health care providers in health promotion units that must be available to support the implementation of the program and achieve its requirements. The level of job performance of health workers and customer satisfaction depends mainly on the quality of the primary health care centers infrastructure and the process of services provided. The level of consumer satisfaction was an indication of moderate. The level of customer satisfaction is closely related to the job satisfaction of health workers.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

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