# Quality of Services in Health Centers in Western Suburbs of Ahvaz by Examining the Gap Between Expectations and Perceptions

Nastaran Rostami Borujeni[1], Saham Sarahi[1], Mohammad Hosein Haghighizadeh[2], Nayeb Fadaei Dehcheshmeh[3]*

[1] Department of Health Services Management, School of Health, Student Research Committee,
Ahvaz Jundishapour University of Medical Sciences, Ahvaz, Iran
[2] Department of Biomedical and Epidemiology, School of Public Health, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran
[3] Department of Health Services Management, School of Health, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran

*Corresponding Author*: Department of Health Services Management, School of Health, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. Tel: +98-9166009661, Email: fadaei-n@ajums.ac.ir

## Abstract

**Background:** Due to the health sector's serious mission in maintaining the health and care of the community, the quality of provided health services is of particular prominence.

**Objectives:** This study aims to assess the quality of services in health centers in western suburbs of Ahvaz by examining the gap between expectations and perceptions.

**Methods:** This was a cross-sectional study and conducted in 2018. The sample size included 291 people visiting health centers in western suburbs of Ahvaz. The data were collected through the SERVQUAL standard questionnaire for assessing the quality. This questionnaire assesses five dimensions of the quality of the provided services. These five dimensions include tangible factors, reliability, responsiveness, assurance, and empathy. Pearson correlation coefficient test was used to investigate the relationship between the variables. Independent t-test was used to compare the means. Data analysis was performed through SPSS version 22.

**Results:** Overall, 89.55% of the subjects were female. In all the five dimensions of quality, there was a significant difference between the ideal status and the observed status (P < 0.001). The lowest gap was related to empathy (r = 0.25), and the highest gap was reported for tangible factors (r = -0.99). There was a significant positive correlation between each of the dimensions of expectations and the same dimension in the perceptions section (P < 0.001).

**Conclusions:** Expectations in all the dimensions, except for empathy, were higher than perceptions, and health centers were far from ideal. Among these dimensions, expectations and perceptions in the area of reliability were higher than in other cases, and the mean scores were at a higher level. In the area of increasing the quality of care in health centers in suburbs of Ahvaz, some measures should be taken to promote the quality.

*Keywords:* Quality; Health Care; Health Center; Ahvaz

## 1. Background

Service quality management is a major challenge for service provider organizations due to its distinctive service characteristics, and high investments and high volume of activities of the organization under the influence of low quality of services can lose their effectiveness (1). In other words, the quality of services is the main factor in explaining the success of an organization in today's competitive environment, and any reduction in clients' satisfaction due to poor quality of services is a major concern (2, 3).

Numerous definitions have been proposed for the concept of quality since its development, but quality is today defined as the desire of clients and the perceptions and expectations of clients as the main determinant of quality (4, 5). Countless leading organizations have realized the importance of clients in the efficiency and effectiveness of their business (4, 5). Accordingly, referral is a key element that should always be considered in organizations. For this purpose, service recipients assess the quality of service by comparing their perceptions and expectations of the received services (6). Parasuraman et al. believe that perceptions reflect clients' assessments of the quality of services provided, and expectations reflect their feeling about what service providers should provide (7). To assess quality using a traditional approach, the characteristics of a product or service are defined as the quality criterion, but based on new methods and attitudes, quality is defined as clients' desire (3). In today's competitive world, the key to achieve sustainable competitive advantage lies in providing high-

quality services that will lead to client satisfaction (8).

Quality of service is the gap between expectations and perceptions of clients visiting health care centers. Expectations are the same as demands of clients, and it refers to what they feel should be provided by a provider. The gap between expectations and perceptions determines the level of quality in a health care center (9). If the expectations are higher than the perceptions, that is, the service provided is not at the level of the client's expectations, the observed quality will be less than satisfaction, leading to dissatisfaction. Quality is meeting the needs of clients, and it is the clients who determine the quality of the services provided (10). Providing high-quality services increases patients' satisfaction. Scientific studies have shown that high satisfaction of patients leads to desirable health outcomes. Satisfied patients easily receive treatment and advice (11). Non-communicable and chronic diseases require a two-way approach: implementing policies aimed at reducing risk factors at the community level and effective provision of interventions and primary health care for patients (12). Based on the mentioned studies, it can be noted that the quality of primary health services that have been studied in different parts of Iran is far from ideal, and these services could not fully meet the expectations of service recipients. Also, given the importance of high-quality services at the health bases level and their decisive role in the early identification of diseases and provision of care for pregnant women and the elderly, the quality of services provided in these centers is crucial.

The results of this study can help health care centers to improve the quality of services and upturn client satisfaction by practical reviewing of the services provided in the bases.

## 2. Objectives

The present study was conducted to assess the quality of health care in the health centers in suburbs of Ahvaz from the perspective of clients.

## 3. Methods

This was a descriptive-analytical and cross-sectional study conducted in 2018. The statistical population included those visiting health bases at the western suburbs of Ahvaz. Out of the 38 health centers covered by the West Ahvaz Health Center and located in the suburbs of Ahvaz, 13 bases were randomly selected. In this study, the samples included 291 people visiting health centers of the West Ahvaz Health Center.

The data collection tool was the SERVQUAL standard questionnaire (5). The questionnaire consisted of two sections, one including 22 questions to assess the expectations of service recipients and the other one containing 22 questions to assess perceptions of service recipients. This questionnaire assesses five dimensions of the quality of the provided services. These five dimensions comprise tangible factors, reliability, responsiveness, assurance, and empathy. These dimensions are related to both expectation and perceptual dimensions. Finally, the sum of the scores of each dimension in the expectations section was compared with the sum of the scores of the same dimensions in the perceptions section. A negative score that is the result of a gap between the perceptions indicates low service quality. It implies low perceptions of service recipients about their expectations. To examine the statistical indicators and describe the variables, the descriptive statistics of mean and standard deviation were used. Pearson correlation coefficient test was used to examine the relationship between variables since the data were normal, and an independent t-test was used to compare the means. Data analysis was performed using SPSS version 22. The significance level of the inferential tests was set at 0.05.

## 4. Results

The mean age of the respondents was 40.30 years, and their age range was 17 to 48 years. Overall, 89.55% (n = 197) of the samples were female and 10.45% (n = 23) were male. Among the patients, 55.9% (n = 123) had high school diploma, 11.8% (n = 26) had an associate's degree, 27.7% (n = 61) had a bachelor's degree, and 4.5 (n = 10) had master-level education. None of the patients had a PhD. The mean perceptions and expectations in the five dimensions of service quality among health care centers were as follows (Table 1).

**Table 1.** The Mean Perception and Expectations in the Five Dimensions of Service Quality

| Dimensions of Expectations and Perceptions | Standard Deviation | Mean |
|---|---|---|
| **Next tangible factors (expectations)** | 0.77 | 6.27 |
| **Next tangible factors (perceptions)** | 1.11 | 5.28 |
| **Next reliability (expectations)** | 0.62 | 6.47 |
| **Next reliability (perceptions)** | 1.00 | 5.65 |
| **After Response (Expectations)** | 1.42 | 5.27 |
| **After Response (Perceptions)** | 1.27 | 4.78 |
| **Then assurance (expectations)** | 0.70 | 6.43 |
| **Then assurance (perceptions)** | 1.00 | 5.51 |
| **Then empathy (expectations)** | 1.57 | 4.65 |
| **After empathy (perceptions)** | 1.25 | 4.91 |

Table 1 shows a difference between the means of each dimension in the expectations section and the means of the same dimension in the perceptions section. It was found that among all the observed dimensions, the mean expectations were higher than the mean perceptions. The correlation between the dimensions of perceptions and expectations in the five dimensions of service quality in patients visiting medical centers was as follows (Table 2).

**Table 2.** Correlation Between Different Dimensions of Variable Expectations and Perceptions

| Dimensions of Expectations and Perceptions | P-Value | The Correlation Coefficient |
|---|---|---|
| Then there are tangible factors in the realm of expectations and tangible factors in the realm of perceptions | 0.09 | 0.175 |
| Then reliability in expectations and reliability in perceptions | 0.000 | 0.325 |
| Then responsiveness in the realm of expectations and then responsiveness in the realm of perceptions | 0.000 | 0.264 |
| Then assurance in the realm of expectations and then assurance in the realm of perceptions | 0.000 | 0.366 |
| Then empathy in the realm of expectations and then empathy in the realm of perceptions | 0.01 | 0.221 |

Table 2 shows a significant relationship between each of the dimensions in the two areas of expectations and perceptions (P < 0.001). Among the mentioned dimensions, the level of correlation in the assurance dimension was higher than that of the other dimensions (r = 0.366). The results of comparing the means of expectations, perceptions, and the gap between them in those visiting health centers were as follows (Table 3).

**Table 3.** The Gap in the Perception and Expectation Scores in Different Dimensions

| Variables | Differences in Averages in Different Dimensions in Terms of Perceptions and Expectations | Standard Deviation | The Gap Between the Averages |
|---|---|---|---|
| Tangible factors | Perceptions = Expectations | 1.24 | -0.99 |
| Reliability | Perceptions = Expectations | 1.00 | -0.82 |
| Responsiveness | Perceptions = Expectations | 1.63 | -0.49 |
| Assurance | Perceptions = Expectations | 0.99 | -.91 |
| Empathy | Perceptions = Expectations | 1.78 | 0.25 |

According to Table 3, the gap between perceptions and expectations is negative. This indicates the low satisfaction of service recipients with the received services compared to their expectations. The gap was the highest in the dimension of tangible factors, and the lowest in the empathy dimension. In the present study, there was a gap between the current status in different dimensions and the ideal status desired by the clients. In the dimension of tangible factors, the mean of perceptions was lower than the mean of expectations.

## 5. Discussion

Based on the standard deviation obtained, there was a significant relationship between the two levels of perceptions and expectations. This result is in line with those of the studies conducted by Abbas Moghbel et al. in Shiraz (13) and Hekmatpour in a study entitled "Evaluation of the quality of medical services in hospitals covered by Arak University of Medical Sciences and Health Services using the SERVQUAL model in 2011" (14). Accordingly, the perceptions of the clients regarding the appearance of health centers and the physical facilities were evaluated as not good, so they should be improved to attract the attention of clients. In the dimension of reliability, there was a significant difference between the two levels of perceptions and expectations. The mean of expectations was higher than mean of the perceptions. The mean scores in both expectations and perceptions levels were higher in this dimension than those in other dimensions. This result was in line with the findings of Aghamalaei et al. in Bandar Abbas, who note that this dimension was the most important dimension from the point of view of clients (15).

Nekouei Moghadam and Mir Esmaeli (2011) conducted a study with the aim of evaluating the quality of services in hospitals in Kerman. Their results showed a significant difference between perceptions of quality and expectations (16), and people's level of expectations in the area of trust in the organization, as quick responsiveness and desire to solve clients' problems, was high. As a result, the mean of perceptions was high and far from their expectations, meaning that primary health care organizations must take measures to increase their clients' trust. With regard to the results obtained for the dimension of responsiveness, the mean of expectations and perceptions were different, and the gap between them was negative. The relationship between perceptions and expectations was significant as the standard deviation was significant.

Among the questions asked in this dimension, a significant correlation was observed between perceptions and expectations. Negative scores in service quality indicate the need to improve all the dimensions of service quality in health care centers.

The research conducted by Jasem Zarei to assess the quality of services in hospitals also found poor quality of responsiveness; thus, he recommended managers pay more attention to patients' needs and provide better services and resources to reduce the existing quality gap and allocate funds to improve performance in areas that have a greater impact on patient perception of service quality (17). In a study aimed at assessing patients' satisfaction with nursing services using the SERVQUAL model, Scardina (1994) showed a negative gap in all the dimensions of quality (18). The study conducted by Lim and Tang (2000) to assess patients' perceptions and expectations in Singapore hospitals showed a negative gap in all the dimensions of quality and argued that it is necessary to improve patient satisfaction in the six dimensions of quality in the SERVQUAL model (19). In the dimension of reliability, service quality was low compared to expectations. This study was similar to the study conducted by Safi et al. in Tehran, as they found the lowest gap in this dimension (20). In the study conducted by Hernan et al. (2002), the lack of coordination and non-compliance with obligations led to reduced client satisfaction and negative impact on the quality of services provided (21). The level of correlation between the set of questions of the expectations section and the set of questions of the perceptions section in this dimension was more than other dimensions, and it had a lower standard deviation.

The empathy dimension showed different results. This dimension was better than other dimensions, and the difference in means was positive. It means that service recipients were satisfied with the quality of services provided in the area of empathy. This result is inconsistent with the results of a study conducted by Kazeminejad et al. in 2016, which examined the quality of maternal and child health services using the SERVQUAL model and considered providing services in this dimension at an undesirable level and far from client expectations. They attributed its reason to high load of executive works in executive programs, the high number of service recipients compared to staff in some centers, and low experience and insufficient skills of some staff, making them not have the opportunity to empathize and hear the perceptions of service recipients (22). A positive gap in this dimension indicates the good performance of health care staff in establishing a good relationship with clients.

One of the limitations of this study was lack of cooperation of most mothers visiting health centers for the sake of their infants, very limited number of clients visiting health bases on weekends, and the lack of willingness of many people in responding to the questions.

### 5.1. Conclusion

The quality of health care services is far from ideal, but the level of the gap varies for each dimension. The only dimension in which satisfaction was observed was in the dimension of empathy, as perception of service recipients was at an ideal level in this dimension. In general, it can be stated that the level of service quality should be improved in planning in the health centers of suburbs of Ahvaz in various dimensions, especially the dimension of tangible factors, which includes physical equipment and facilities and the appearance of the staff. It should also be noted that merely having appropriate physical equipment and ideal appearance of the organization do not lead to client satisfaction, but establishing a close relationship between staff and clients is also crucial in improving the level of quality. Finally, it is recommended to conduct studies to compare the quality of services provided in health centers located in suburbs, centers, and bases, evaluate the quality of services provided to mothers with multiple pregnancies, and assess the mean time of receiving services in health centers and its role in the satisfaction of relatively rich patients.

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