Abstract

Objective: Today, services in the health sector have a special status, and measuring quality of services is a prerequisite for quality improvement. The aim of this study was to assess service quality based on the perceptions and expectations of addicts in addiction centers of Bushehr province. **Method:** This cross-sectional study was conducted during the first nine months of 2016 to review the views of 650 patients presenting to addiction treatment centers located in Bushehr province. In the process of data collection, the SERVQUAL tool was used in the form of two 29-item questionnaires (in two parts of expectations and perceptions) to measure the quality of services. The validity and reliability of this tool have been confirmed by Cronbach's alpha and factor analysis. **Results:** According to the research findings, the highest service quality gap pertained to access dimension (-0.764) and the lowest quality service gap was related to the responsiveness dimension (-0.44). The investigation of drug addiction centers in terms of the quality of service scores shows that the three centers Persian Gulf, Jam, and Payam Aramesh had the lowest score of quality of services; and the three centers of Novin, Salamat Gostar, and Assaluyeh held the highest scores of service quality. There was also a significant difference between expectations and perceptions of the services provided in all dimensions of services quality studied in the current research, and the service quality gap was negative. **Conclusion:** There is a need for improvement in all dimensions of service quality in addiction treatment centers. It is suggested that managers of such centers pay more attention to the needs of their clients and reduce the gap in their service quality.

Keywords: expectations, perceptions, addiction treatment centers, SERVQUAL, service quality

Assessment of Service Quality in Addiction Treatment Centers through SERVQUAL Model in Bushehr Province

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Introduction

In today's competitive environments in which organizations compete with each other to attract customer, customer satisfaction is a key element in achieving superiority and an important factor for the organization's success; as it leads to the profitability and the loyalty of customers to the organization (Manuel, 2008). In this situation, many organizations are looking for ways to achieve competitive advantage and differentiate their services and products from other organizations' services and products. One of the available strategies to achieve this objective is to provide high quality services (Gitman & McDaniel, 2009). Nowadays, considering the growth of technology and research, people, in addition to organizations, have a different look at services and demand a full range of services based on their financial power, and in fact, it can be stated that their needs and expectations have changed as compared to the past (McKee,& Healy, 2000). Correct understanding and accurate assessment of clients' expectations will determine the future policy and the starting point for the next activities. Regarding this issue, the protracted evaluation and observation of service quality is of crucial importance; providing sufficient information on the content of customer's perception of service quality can help organizations to identify opportunities and to prevent wasting resources in the organization (Stiglingh, 2009). Considering the growing importance of the quality status in service affairs, the measurement and management of the service quality has also become a crucial factor for health and treatment organizations, and all of these issues have made the service providers of health and treatment centers to evaluate these expectations; by doing so, they can improve their standards, identify the contexts and dimensions affecting the competitive advantage of the organization in the long term, and guarantee their long-term benefits (Urquhart et al., 2003).

According to the official statistics of the drug control headquarters, there are now 1325,000 people with drug dependency or addiction in the country. Considering that only 750,000 people are being treated by 6,700 treatment and addiction withdrawal centers, the continuation of treatment for addicts who are currently undergoing treatment and also the attraction and encouragement of new addicts to initiate treatment are among the challenges for these centers and governing institutions. Measurement and evaluation of service quality gap is one of the prerequisite for quality improvement. According to the performed research, the perceived quality against the expected quality is the most important factor in forming the patient's mentality about the value of the service and there is a gap between these two in many service centers. Accordingly, the customer's expectations are" presupposed beliefs about goods or services"; perceptions mean "the actual perceived value about service"; quality includes "a set of features of a product or service", and services are also "intangible products that require the customer's intervention and are used at the time of delivery" (Lee, & Yom, 2007). In order to determine the difference between what is presented and

what is received, a proper tool is needed. The SERVQUAL questionnaire, developed and presented by Parasuraman and his colleagues, was designed for this purpose; it has been used in hospitals and some other health centers for many years. In the case of rehabilitation centers, including drug withdrawal centers, the use of this tool has been accompanied by some contradictions. Thus, designing a questionnaire to assess the service quality in addiction treatment centers is essential and, of course, a useful tool for measuring in other centers can be achieved by standardizing it.

The main purpose of this study, in addition to designing a questionnaire based on the service quality of SERVQUAL specific to addiction withdrawal centers, is to assess the quality of services provided in addiction withdrawal centers located in Bushehr province. In this study, by measuring the service quality in the addiction withdrawal centers, the gap between the expectations of the recipients of services and their subjective evaluation is measured. Then, according to the importance of each indicator, the areas for improving the quality of received services are identified and are introduced under the title of the applicable proposal. Considering the multi-dimensionality of the concept of services, several definitions have been presented for it. In the following, two important definitions in this area are discussed: Kotler and Armesrang (2010) define the service as "an activity or benefit that one party offers to the other, so that the service is essentially intangible and does not contain the ownership of anything; service may be presented with a physical or non-physical product". Gronroos (2004) describes the service as "a process involving a set of more or less intangible activities that naturally, but not necessarily always, occur in the interactions between customers and employees, or physical resources, or goods or service-providing systems to solve the problems and needs of the customers". Today, in addition to the growing importance of services, quality has also been raised as an inevitable component and one of the key factors of success in the competition between businesses (Nourbakhsh, Mir-Ebrahim Isfahani, & Vahabi, 2012). With regard to the intensification of global competition, it is not possible to meet the customer's needs only through the presentation of the traditional products, but that should be done by producing the innovative products with superior quality to obtain the customer's satisfaction. Therefore, the continuous measurement and improvement of quality has always been considered as one of the emerging missions of current organizations.

Attention to and emphasis on providing high quality services can be pursued as a competitive advantage in today's organizations (Feizi, & Tatari, 2004); organizations can also respond to the expectations of the organization's customers or even beyond the customer's expectations by continually providing high quality services as a competitive strategy. Of course, organizations should be committed to provide service quality that they are capable of presenting, and in practice, they should work more than they are committed to. Institution should not be committed to provide services beyond its own power, because the

commitment to provide services that the institution is not able to provide will cause dissatisfaction of the clients referring to the institutions. These expectations are mainly made by the past experiences, word of mouth advertisements, and the advertising announcements of service organizations. Customers often compare the services offered by one institution to their expected services. They will return to the institute if the offered services are more than their expected services, or at least equal to it (Ganguli, & Roy, 2010). Definitions of service quality usually have a general framework and do not refer to its dimensions. For example, one of the common definitions of service quality is that "the service quality is the customer's judgment about the superiority of a service" (Zeithaml, 2006). Therefore, Grönroos (2004) has divided the service quality into two categories of technical quality and functional quality. In his view, the service is offered in the interactions between the buyer and the seller, and its quality is assessed by the customer from both the technical and functional aspects. The technical dimension includes the actual outcome of the service and the functional dimension includes the way the service is provided. He believed that what the customer got after receiving the service is the technical dimension of the quality, and how it is received is the functional dimension of the quality. As a result, in his view, the service quality provided to the customer is made of a set of dimensions, some of which are intrinsically technical and some other are functional; a prerequisite for understanding how quality is evaluated by the customer is that the factors affecting the dimensions of technical and functional quality should be identified and their effects be cleared. Technical quality cannot be the only factor for an organization to achieve an overall service quality, since in addition to the technical skills of the employees, the interpersonal relationships and the human interaction are also important (Ferguson & Stokes, 2009). The SERVQUAL model is a comprehensive model that measures both technical and functional dimensions. Companies that are deeply quality-oriented develop quality in both aspects of the internal culture and the external reputation. Perceived service quality is described as the result of a comparison between the actual experience and the customer's expectations before receiving the service.

Parasuraman defined the service quality as a gap between what customers feel about services (customer's expectations) and their perceptions of the services provided (received services) (Shahin & Janatiyan, 2010). Parasuraman, Zeithaml, & Berry (1994) introduced ten dimensions for quality, including reliability, competency, availablility, communication, politeness and humility, assurance, security, understanding the customer, accountability, and tangibility. Then, these dimensions were summarized in five main dimensions: Reliability: The ability to perform a promised service to the customer carefully and according to the customer's request, the reliable performance of the service is the customer's expectation. Accountability: The desire to help customers and providing services to them without wasting time; annoying customers with no particular reason creates dissatisfaction and negative feedback about the

provided service quality. Assurance: The knowledge and humility of the employees and their ability to create confidence and trust for the customer during service delivery. This dimension includes the competence to provide services, the respect for the customer, politeness, and believing in this general principle that the affection and trust of the customer toward the person who delivers service is the best advantage for him. Empathy: Special attention of the service organization to all of the customers; empathy includes these features: the customer can approach to the person (being warm and good-tempered), sensitivity to the customer's needs, and efforts to understand them. Tangibility: Paying attention to physical facilities, equipments, the appearance of the staff, and the communicational tools available at the service delivery site (Shahin & Janatiyan, 2010).

The SERVQUAL model is one of the models for the analysis of quality gap which was developed by Parasuraman. In this model, the prominent activities of the service organization and the interaction and communication between them (which affect on the understanding of the quality and providing a satisfactory level of service quality) are identified. These communications are described by gaps or contradictions as "a gap is an important barrier to achieve a satisfactory level of service quality". Each of the quality gap analysis models are designed with a different focus and emphasis. In addition, each model is useful for different domains; but, generally the conceptual models of quality are important due to some reasons including determining the factors affecting the quality of an organization's services, determining the qualitative deficits, and defining a framework for implementing quality improvement programs. A desirable quality model should help the manager in identifying the resources, discovering the problems, identifying the causes of the observed problems in terms of quality, and providing the practical solutions (Parasuraman et al., 1994).

The gaps levels of Parasuraman model include: Gap (1), the customer expectation-management perception: the manager may have an inaccurate understanding of the customer's expectations. The reason for this gap is the lack of appropriate focus on the customer or the market. The presence of a marketing department does not necessarily guarantee the focus on the market, but it requires a proper management process, tools, and attitudes of market analysis. Gap (2), the specifications of service quality: The organization may be unable to translate the customer's expectations into service quality characteristics. This gap is associated with the design of the service. Gap (3), Service offering: Instructions for providing a service or service performance do not guarantee the provision of high quality service. There are several reasons for this issue: lack of adequate support for front line employees, process problems, and variability of the performance of front line / communication employees. Gap (4), The external communication: the customer's expectations are shaped by the organization's external communications. A realistic expectation promotes the positive understanding of the service quality. Therefore, the marketing department of a

service organization must precisely describe the service and the delivery method. Gap (5), The expected service – the perceived Service: the perceived service quality depends on the size (the difference between perceptions and expectations) and the direction of the fifth gap. The negative difference between the customer's expectations and perceptions represents a level of service quality lower than the customer's expectations, and vice versa, which in general is associated with the nature of the marketing, design, and service gaps.

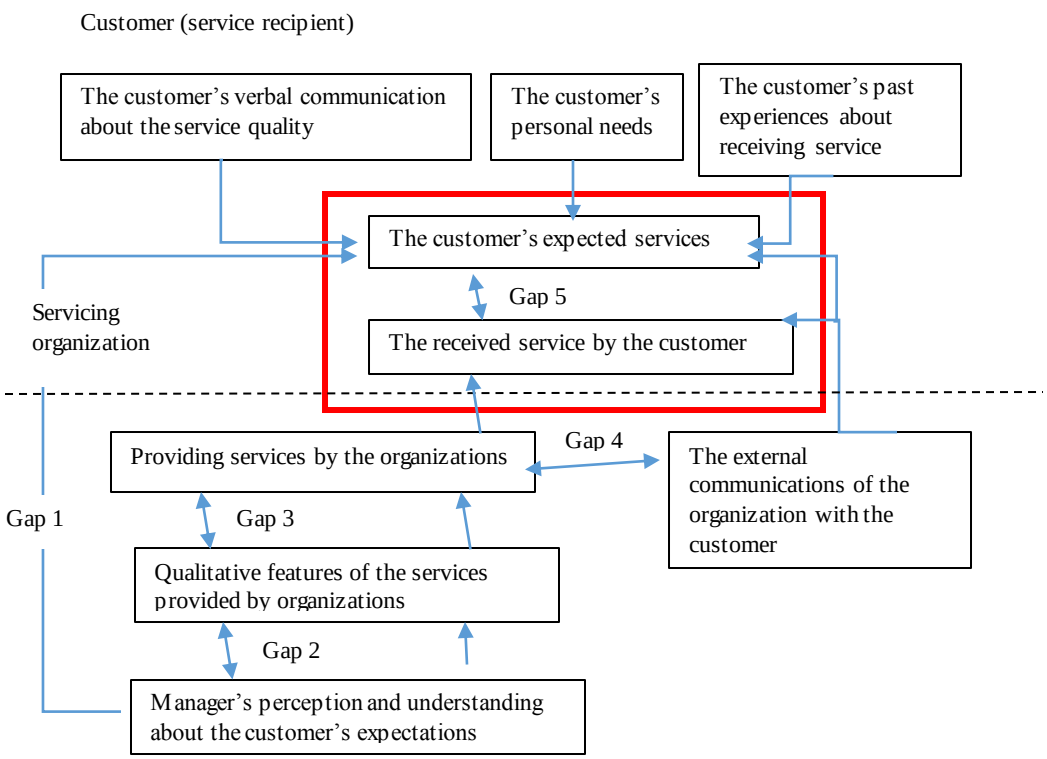

Fig. 1: Conceptual Model of the Research

It is observed that the most important gap in this model is the customer gap or the fifth gap (the gap between the expected service and the customer's perceived service); the key factor in reducing this gap is the elimination of the other four gaps (Philip, & Hazlett, 2007). In this research, the fifth gap, i.e., the gap between the expected service and the perceived service by the customer is studied. Khaki, Kargar, Parham, and Mohebi (2015) in a study with a survey of 400 patients referring to the treatment centers evaluated the gap in the provided service quality. The results indicated that there was a negative gap in all aspects of service quality. Azari and Aliyari (2015) evaluated the service quality of

Imam Khomeini hospital of Tehran University of Medical Sciences based on studying 330 patients. The results showed that the type of examination has the first priority in receiving the hospital services, and the cleaning and health services have the last priority. With regard to the waiting time between the entrance and admission to the hospital, a negative sign was revealed; it indicated the negative effect of this characteristic on the patients' preferences. Noshirvani, Salarzehi and Kurd (2012) examined the views of 97 patients and the results showed that in order to attract the patients' loyalty as the most important asset for the hospital, the improvement of medical service quality programs can lead to loyalty and satisfaction of the patients. Considering the competitiveness of health care, this hospital and similar hospitals can offer better services to the patients by investing on the quality dimensions of health care services. Mohammadi and Shoghli (2008), by reviewing the views of 300 people, investigated the service quality of health care centers in Zanjan. The results revealed that the reliability dimension (the ability to provide accurate and timely service) was the most important issue for the health centers in Zanjan. With respect to this dimension of service, the expectations of service recipients are the highest ones. According to the recipients' point of view of, the fulfillment of service reliability depends on factors such as the correct provision of health services at first visit, the correct and accurate maintenance of documents and files, and the provision of services at the appointed time. The service quality tool (SERVQUAL) can help health care centers to identify the important dimensions of service and the areas in need of correction based on the views of service recipients.

Dick and Douglas (2017) investigated the methods, employee's commitment, barriers, and factors affecting the success of quality improvement projects. The results showed that the implementation of service quality improvement projects has a positive impact on the patients' safety and care and that the services quality can be improved by involving doctors in such plans and attracting nurses' participation. Yogesh and Satyanarayana (2016) reviewed the views of 500 patients who referred to treatment centers. The results of this study led to the presentation of a model and also a tool for measuring the hospital service quality. And finally, various dimensions examined in the service quality were classified in terms of the existing quality gaps. Hussein and Amal (2013) measured the service quality gap and assessed its relationship with patients' satisfaction by employing a survey of 1,000 people referring to a total of ten hospitals in Saudi Arabia. In that study, five dimensions of service quality dimensions were investigated by SERVQUAL tool and the results of the research showed that there was a negative gap in the examined dimensions.

Method

Population, sample, and sampling method

Regarding the main objective of the study, which is to assess and evaluate the service quality of addiction treatment centers, it can be stated that the current research is of applied type. Moreover, from the perspective of the implementation method, the current study is a descriptive-survey study. The statistical population of the study consisted of all the people who are under treatment in addiction treatment centers located in Bushehr province. The sample size was determined to be 344 people, using the Cochran formula. However, considering the spread size of the population and in order to be ensure about the desired outcome, a sample of 650 people was selected by using the stratified random sampling method according to the cities of Bushehr province (as the stratification) and in proportion to the number of visitors to the treatment centers. The details are illustrated in Table 1.

Table 1: How to Calculate the Sample Size in Each City

City	*Number of clients referred to the centers*	*Distribution Percentage of the Statistical population*	*Sample*
Bushehr	1304	0.40	261
Borazjan	724	0.22	145
Jam	167	0.05	33
Kangan	215	0.07	43
Genaveh	208	0.06	42
Khormoj	362	0.11	72
Asaluyeh	270	0.08	54
Total	3250	1.00	650

It should be noted that after the removal of the vitiated questionnaires out of 650 distributed questionnaires, 638 questionnaires were relied upon and analyzed.

Instruments

In the process of data collection, a 58-item questionnaire was employed. It is comprised of two distinct sections including perceptions and expectations, whose responses are structured in the five point Likert scale from "very true of me" to "very untrue of me". In the present study, Cronbach's alpha was used to evaluate the reliability. The results are illustrated in Table 2. To investigate the validity of the questionnaire through confirmatory factor analysis, KMO test was used to examine the adequacy of the sample. In the forenamed test, if the KMO statistic is more than 0.7, it can be stated that a proper sampling of the variables has been made. The more the index is greater and more close to 1, it can be stated that the indicators are selected adequately.

Table 2: Validity and Reliability of the Questionnaire

Variables	*Components*	*Number of questions*	*Validity*			*Reliability*
			KMO	*Sig.*	*The percentage of the explained variance*	*Cronbach's alpha*
Perceptions	Tangibility	Q1-Q5	0.83	0.0005	0.72	0.84
	Reliability	Q6-Q10	0.88	0.0005	0.69	0.88
	Accountability	Q11-Q15	0.95	0.0005	0.53	0.79
	Service guarantee	Q16-Q20	0.79	0.0005	0.69	0.94
	Empathy	Q21-Q24	0.86	0.0005	0.81	0.89
	Access	Q25-Q29	0.91	0.0005	0.76	0.77
Expectations	Tangibility	Q30-Q34	0.81	0.0005	0.88	0.86
	Reliability	Q35-Q39	0.86	0.0005	0.73	0.91
	Accountability	Q40-Q44	0.92	0.0005	0.76	0.86
	Service guarantee	Q45-Q49	0.80	0.0005	0.68	0.95
	Empathy	Q50-Q53	0.83	0.0005	0.72	0.87
	Access	Q54-Q58	0.93	0.0005	0.78	0.81
The entire questionnaire		Q1-Q58	0.94	0.0005	0.68	0.89

The estimated model for confirmatory factor analysis is illustrated in Fig. 2.

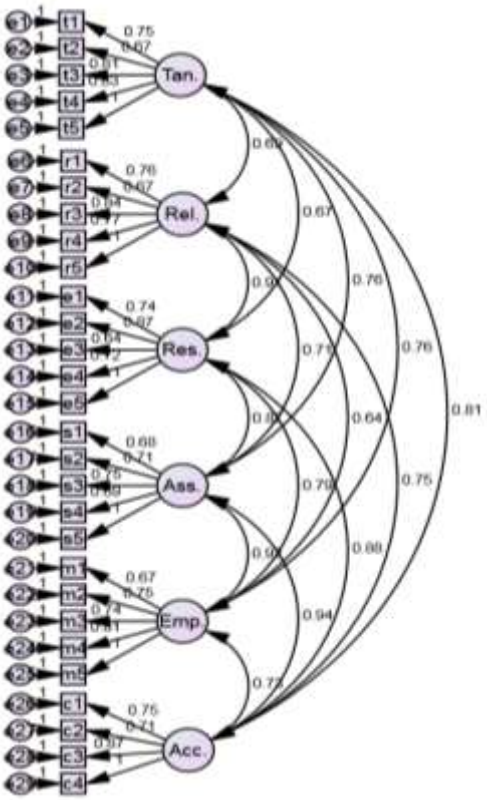

Figure 2: The Estimated Model for Confirmatory Factor Analysis

After carrying out the KMO test and ensuring about the adequacy of the sample size, in order to conduct a confirmatory factor analysis, the research

measurement model must be of a desirable fit. Table 3 shows the final model of factor analysis, the relationship between variables, and its coefficients; it was illustrated and tested using the Amos software.

Table 3: The Reported Fit Indices for the Final Model of the Research

Indices	*Abbreviation*	*The estimated value*	*The acceptable fit*
Normal or relative Chi-square index	χ^2/df	1.687	Between 1 and 3
Bntlr- Bonnet index	NFI	0.947	More than 0.9
Goodness of Fitting Index	GFI	0.938	More than 0.9
Adjusted Goodness of Fitting Index	AGFI	0.967	More than 0.9
Tucker-Lewis Index	TLI	0.997	More than 0.9
Comparative Fit Index	CFI	0.981	More than 0.9
Incremental Fit Index	IFI	0.976	More than 0.9
Parsimonious Normed Fit Index	PNFI	0.758	More than 0.5 or 0.6
Parsimony Ratio Index	PRATIO	0.981	More than 0.9
Parsimonious Comparative Fit Index	PCFI	0.834	More than 0.5 or 0.6
Root Mean Squared Error of Approximation	RMSEA	0.054	Less than 0.1

Table 3 shows the fitting indices of the measurement model, the results of the estimated value, and the optimal value for each index in the six dimensions of service quality. The value for all the estimated indices of the service quality measurement model is in the desirable and acceptable range. It can be stated that the measurement model has a desirable fit.

Table 4: Results of Factor Analysis for the Questionnaire

The examined relationship			*Factor loading*	*Critical ratio*	*Sig.*	*The examined relationship*			*Factor loading*	*Critical ratio*	*Sig.*
Tan.	<--	t1	0.735	3.478	0.003	Ass.	<--	s1	0.682	6.812	0.0005
Tan.	<--	t2	0.672	4.498	***	Ass.	<--	s2	0.708	4.644	0.0005
Tan.	<--	t3	0.816	5.518	***	Ass.	<--	s3	0.746	6.894	0.0005
Tan.	<--	t4	0.832	3.818	***	Ass.	<--	s4	0.692	4.515	0.0005
Tan.	<--	t5	1	-	-	Ass.	<--	s5	١	-	-
Rel.	<--	r1	0.759	5.053	***	Emp.	<--	m1	0.669	2.658	0.0005
Rel.	<--	r2	0.672	7.763	***	Emp.	<--	m2	0.753	8.203	0.0005
Rel.	<--	r3	0.843	3.057	***	Emp.	<--	m3	0.743	3.167	0.0005
Rel.	<--	r4	0.769	6.889	***	Emp.	<--	m4	0.813	6.001	0.0005
Rel.	<--	r5	1	-	-	Emp.	<--	m5	١	-	-
Res.	<--	e1	0.738	6.755	***	Acc.	<--	c1	0.751	6.849	0.0005
Res.	<--	e2	0.871	6.438	***	Acc.	<--	c2	0.708	6.844	0.0005
Res.	<--	e3	0.643	5.729	***	Acc.	<--	c3	0.869	4.039	0.0005
Res.	<--	e4	0.723	3.817	***	Acc.	<--	c4	١	-	-
Res.	<--	e5	1	-	-	-	-	-	-	-	-

If the markers of the studied structures have a critical ratio of less than 1/96, they are not important for measurement, and therefore should be excluded from the analysis process. According to the obtained results (Table 4), it can be stated that all items for the purpose of data analysis are evaluated to be appropriate.

Results

The number of 604 individuals (94.67%) were male and 34 (33.3%) were female. The number of 168 people (26.33%) was single, 417 people (65.36%) were married, and 53 people (8.31%) were divorced. The number of 447 people (70.06%) had the degree of diploma or lower, 137 people (21.47%) had the associate degree, 47 people (7.37%) had bachelor degree, and 7 people (1.10%) had master's degree or higher. The number of 422 people (66.14%) were self-employed, 55 people (8.26%) were employee, 17 (2.67%) were university students, 73 (11.44%) were unemployed, and 71 (11.13%), had other jobs. Twenty six people (04.08%) are less than 20 years old, 66 people (10.34%) are 20 to 25 years old, 132 people (20.69%) are 25-30 years old, 141 people (22.10%) are 30 to 35 years, 97 people (15.20%) are 35-40 years old, 97 people (15.20%) are 40-45 years old, and 78 people (12.38%) are more than 45 years old. The history of addiction was as following: 44 people (6.90%) less than one year, 100 people (15.67%) one to three years, 154 people (24.14%) three to six years, 116 people (18.18%) six to nine years, 59 people (9.25%) 9 to 35 years, 35 people (5.49%) 12 to 15, and 130 people (20.38%) more than 15 years. The amount of income was as following: 194 people (30.41%) less than 500 thousand tomans (equivalent to $50), 175 people (27.43%) 500 thousand to 1 million tomans (equivalent to $50to $100), 139 people (21.79%) 1 million to 1.5 million tomans (equivalent to $100to $150), 51 people (7.99%) 1.5 to 2 million tomans (equivalent to $150 to $200), 31 people (4.86%) 2 million to 2.5 million tomans (equivalent to $200 to $250), 40 people (6.27%) 2.5 million to 3 million tomans (equivalent to $250 to $300), and 8 people (1.25%) earned more than 3 million tomans(equivalent to $300),. In order to prioritize the gap of the examined indices, the weight of different dimensions of service quality should be determined using formula (1):

$$\textbf{Formula (1)} \quad W_i = \frac{\textbf{mean of the importance of each dimension}}{\textbf{Total mean of the importance of all dimensions}}$$

The results of the calculation of the weight of service quality's different dimensions are presented in Table 5.

Table 5: Weight and Importance of Each Dimension of Service Quality

Row	*Different dimensions of service quality*	*Mean of the importance of each dimension*	*Total mean of the importance of different dimensions*	*The weight of the dimension based on formula 1)(*
1	Accountability	9.044	246.99	0.183
2	Services Guarantee	8.844	246.99	0.179
3	Reliability	8.586	246.99	0.174
4	Access	8.208	246.99	0.166
5	Tangibility	8.055	246.99	0.163
6	Empathy	8.325	246.99	0.135

From the point of view of the patients referring the addiction treatment centers, the accountability dimension had the highest importance (equal to

0.183) and empathy dimension had (equal to 0.135) had the lowest priority in terms of importance.

The analysis of service quality gap: In order to calculate the existing gap in the service quality, the mean scores derived from the perceptions and expectations of individuals were determined for different dimensions of quality, and then using the formula (2), the service quality gap was calculated in each dimension (formula (2) Mean score of the expectations (Eij) - Mean score of the perceptions (Pij) = Service quality gap).

Table 6: Service Quality Gap of the Addiction Treatment Centers for Each Dimension

Row	*Dimensions of service quality*	*Mean of the individuals' perceptions (Satisfaction)*	*Mean of the individuals' expectations*	*Service quality gap*
1	Accountability	4.532	4.128	-0.404
2	Service guarantee	4.520	4.074	-0.446
3	Reliability	4.476	3.978	-0.498
4	Empathy	4.458	3.932	-0.526
5	Tangibility	4.437	3.852	-0.585
6	Access	4.456	3.711	-0.744

As can be observed, the service quality in the accountability and access dimensions has the highest the lowest gaps respectively.

Determining the final score for service quality and prioritizing the service quality for performing corrective actions: considering the service quality gap does not represent a clear picture of the service quality by itself, because different dimensions of the service quality of the addiction treatment centers are not of the same importance for the clients. Thus, the importance of different dimensions of service quality should be considered in the assessments. According to Formula 3, in order to calculate the final quality service score, the importance of each index in the gap must be calculated.

Formula (3) SQ = [Wi * (Pij-Eij)]

Table 7: Prioritizing the Dimensions of Service Quality of for Performing Corrective Actions

Dimensions of service quality	*Service quality gap*	*The importance of the component*	*Service quality score*	*Rating for performing corrective actions*
Access	-0.744	0.166	-0.1236	1
Tangibility	-0.585	0.163	-0.0953	2
Reliability	-0.498	0.174	-0.0865	3
Service guarantee	-0.446	0.179	-0.0798	4
Accountability	-0.404	0.183	-0.0739	5
Empathy	-0.526	0.135	-0.0709	6

With regard to the final score of the service quality obtained for each dimension, it can be stated that the access dimension has the highest service quality gap and also the highest priority for correction. On the other hand, the empathy dimension has the lowest service gap and lowest priority for corrective actions, as compared with the other dimensions.

The final score of the service quality for addiction treatment centers: The final score of the service quality for addiction treatment centers, which is derived from a total score of the six dimensions, is presented in Table 8. Centers with the

lowest service quality are in the first priority in order to improve the service quality indicators; for example, the Persian Gulf region has the lowest quality service score (-1.923) and the highest gap between the customers' expectations and the services provided by the Center. While, Novin center has the highest service quality score (-0.052), and despite the negative gap of service quality as compared to other centers, has the lowest quality gap.

Table 8: Ranking the Centers in Terms of Service Quality Total Score (Total Score of All Dimensions)

Rank	*Center name*	*Service quality final score*	*Rank*	*Center name*	*Service quality final score*
1	Persian Gulf center	-1.923	**15**	Milad center	-0.567
2	Jam center	-1.581	**16**	Ebrat center	-0.478
3	Payam-e-Aramesh center	-1.537	**17**	Shafa center	-0.47
4	Tangestan center	-1.513	**18**	Raha center	-0.316
5	Shahid Ganji center	-1.376	**19**	Rahaei center	-0.281
6	Neshatgostar center	-1.162	**20**	Bidari center	-0.259
7	Tanin-e-Behesht center	-1.05	**21**	Hakim center	-0.235
8	Omid-e-Jonoub center	-0.913	**22**	Iliya center	-0.226
9	Hayati No center	-0.892	**23**	Persian Gulf center (2)	-0.224
10	Nedaye Aramesh center	-0.864	**24**	Ahmadzadeh center	-0.216
11	Saba center	-0.705	**25**	Navid center	-0.195
12	Tavangar center	-0.618	**26**	Asaluyeh center	-0.166
13	Rowzaneh center	-0.597	**27**	Salamatgostar center	-0.075
14	Tolouei Sabz center	-0.569	**28**	Novin center	-0.052

In order to investigate the research hypotheses that examined the gap between the quality of received services and the expected quality, a paired sample t-test was used; the results are illustrated in Table 9.

Table 9: Paired Sample T-test results for Assessing the Quality Gap in the Received and the Expected Quality

Hypotheses	*Mean*	*SD*	*Confidence interval 0.95*		*df*	*t*	*Sig.*	*Results*
			Lowest	*Highest*				
First hypothesis	0.5852	1.009	0.4787	0.6916	637	10.814	0.0005	Accept
Second hypothesis	0.4981	1.026	0.3897	0.6062	637	9.049	0.0005	Accept
Third hypothesis	0.4038	1.115	0.2862	0.5214	637	6.753	0.0005	Accept
Fourth hypothesis	0.4601	0.972	0.3575	0.5627	637	8.822	0.0005	Accept
Fifth hypothesis	0.5255	1.079	0.4111	0.6393	637	9.085	0.0005	Accept
Sixth hypothesis	0.7441	1.0275	0.6357	0.8524	637	13.509	0.0005	Accept

As shown in Table 9, it can be concluded with certainty that there is a gap between the received service quality by the individuals undergoing treatment in the treatment centers and their expectations of the received services in all six dimensions ($P < 0.001$).

Discussion and Conclusion

Based on the findings of the present study, among the different dimensions of service quality, the accountability dimension has the highest importance, and then dimensions of service guarantee, reliability, access, and tangibility are ranked, and finally, the dimension of empathy has the lowest importance for the customers. The results of the current study are in agreement with the findings of Youssef, Nel, and Bovaird's (2008) study regarding the service quality of from the perspective of patients in the England National Medicine Hospitals. Moreover, the findings are consistent with Lee and Yom's (2007) study on the comparative study of the perceptions of patients and nurses about the service quality in Korean hospitals and also with Parasurman et al.'s (1994) research on the service quality of the banking and insurance systems. However, the results are not in accordance with the results of Tang et al.'s (2010) research in Singapore hospitals, Mohammadi and Shoghli's (2008) study on the service quality management in Zanjan hospitals. In these studies, patients put more emphasis on the guarantee service dimension, because the correct diagnosis, treatment, and the suitable nursing care (the guarantee service dimension) are important for patients in the hospital environment. While, in the addiction treatment centers, quick and timely accountability has the highest importance due to the specific physical conditions of the clients.

According to the obtained results, it is recommended that managers of the addiction treatment centers pay attention to the task aspects in the accountability dimension in order to improve the perception of the service recipient; they should also pay attention to the needs and expectations of the service recipients in the service guarantee dimension. Lack of coordination, breaking the promise, and non-fulfillment of commitments can somehow increase the waiting time for recipients of services and negatively affect the service quality. In the following, the expected priorities of the clients referring to the addiction treatment centers for each dimension will be discussed.

In the dimension of tangibility and physical equipment, the appearance of the personnel, the attractive and hygiene physical environment, up-to-date equipments, the installation of signs and guide boards, and finally the appropriate and clean waiting room and the hospitalization room are the highest priorities for clients referring to the addiction treatment centers respectively. In the dimension of reliability, timely service delivery, competence and professionalism of the staff, a balance between cost and the provided services, providing accurate information about the treatment process, the accurate documentation of the documents relating to the provided services are the highest priorities for the clients referring to the addiction treatment centers respectively. In the accountability dimension, the way the receptionist of the center guides, the patience and the accuracy of the personnel's responses to the clients, the appropriate and friendly behavior of the staff, the personnel's continuous willingness to help the patient, and the acceptable speed in providing patients

with services are the highest priorities for the clients referring to the addiction treatment centers respectively. In the dimension of service guarantee, the observance of human principles and respect for patients, the maintenance of patient's privacy, the personnel's knowledge and expertise, providing explanations about the treatment process, receiving services with the sense of security are the highest priorities for the clients referring to the addiction treatment centers respectively. In the empathy dimension, the personnel's interest in providing services to the clients, paying attention to the clients' ideas and opinions, receiving feedback from patients, and understanding of and paying attention to the patients' special needs are the highest priorities for the clients referring to the addiction treatment centers respectively. In the access dimension, easy access to the staff when needed, the appropriate geographic location of the center, the availability of the center for individuals with low financial power, access to a place for residence and waiting for the patients' companions and providing services in all situations and all day long are the highest priorities for the clients referring to the addiction treatment centers respectively.

Based on the obtained results of the present study, among the dimensions of service quality, the access dimension has the highest priority for the clients in terms of correction, and then the dimensions of tangibility, reliability, service assurance, and accountability have the highest priorities respectively. The empathy dimension has the lowest priority for correction from the perspective of the clients. Ranking the quality dimensions provides a general overview of the actions in order to remove the service quality gap, however, in order to evaluate the service quality gap in a better way and prioritize the service quality indices, different indices were ordered regardless of the dimensions of those indicators. Ten important priorities are introduced below for the purpose of correction.

First priority: Costs received from the clients referring to the addiction treatment center should be designed in such a way that the access for people with low financial power would be provided. With regard to the research findings, most of the clients referring to these centers receive the income of less than 500 thousand tomans (equivalent to $50) per month. Thus, reducing the cost for the clients should be examined by the relevant authorities in various ways such as the insurance of the provided services or other solutions. Second priority: From the perspective of the clients referring to the addiction treatment centers, services should be provided by the centers on holidays, various occasions (such as holidays, the weekends, etc.), and more hours a day. In fact, the clients expect to have a wider range of services in terms of time, like other health centers. Third priority: For the clients referring to the addiction treatment centers, the manager of the centers should provide the appropriate facilities such as waiting rooms, armchairs, and other equipments (air conditioner, eater cooler, etc.) for the clients' companion. Forth priority: from the perspective of the clients referring to the addiction treatment centers, the facilities and equipments for treatment and

care should be up-to-date and appropriate. Fifth priority: from the perspective of the clients referring to the addiction treatment centers, waiting salons and the hospitalization rooms should have suitable, clean, and hygienic facilities. Sixth priority: For the clients referring to the addiction treatment centers, the level of the costs received by these centers is high and does not correspond to the provided services. They request for a balance between the provided services by the center and the paid cost by themselves. Seventh priority: from the perspective of the clients referring to the addiction treatment centers, access to a doctor, counselor or nurse who is responsible for providing health care services to them should be facilitated. Eighth priority: from the perspective of the clients referring to the addiction treatment centers, they should give feedback about the quality as well as the amount of services provided. In fact, the clients referring to the centers expect to have a mutual and respectful relationship with the centers based on the respect for the views of the clients. Ninth priority: for the clients referring to the addiction treatment centers, the specific needs of the clients, i.e., drug addicts (depending on their age, their addiction history, their consumption (industrial or traditional), and other special conditions) should be considered. Moreover, the type of service provided or the amount of service should be presented based on clear criteria. Tenth priority: For clients referring to the addiction treatment centers, the physical environment of the addiction treatment center should be attractive and clean. In fact, the feeling of inner tranquility that a person receives from the color of the door and the wall, the pleasant, decorated, and hygiene environment will be effective in improving his treatment. Therefore, it is suggested to apply psychological opinions in designing the addiction treatment centers in order to provide a pleasant environment. In this way, the person is encouraged to continue the treatment and subsequent visits.

The suggestions of the present study are as follows: Considering that the designed questionnaire was approved by the beneficiary groups and the observers of the addiction treatment centers, it is recommended that the questionnaire be used to evaluate and control the services quality of the addiction treatment centers. Since the evaluation and control of the quality is a continuous and permanent task, and the current research depicts the status of the addiction treatment centers in a definite time since 2015, it is suggested that the service quality of the addiction treatment centers be evaluated periodically (quarterly) based on the indicators presented in the questionnaire; the results of the evaluation should be presented in the working groups chaired by the Coordinating Council of the Drug Control Headquarters and the Welfare Organization, with the presence of other related organizations and stakeholders, such as the medical sciences. The results of the evaluation should be considered as one of the bases (with a high degree of importance) for the continuation of the activities of the centers. It is suggested that the exact implementation of the managed care guidelines and the behavior towards the patients (addicts) referring to the addiction treatment centers, which will somewhat lead to the

improvement of the provided service quality, will be monitored permanently. It is recommended that the required executive guarantees be considered by the supervisors and licensors in order to meet the service quality indicators in the addiction treatment centers. These actions can be taken into account prior to the granting the activity license (in terms of tangibility, access, and service guarantee dimensions) or when extending the activity license of the addiction treatment centers (in all dimensions, especially, accountability, reliability, and empathy). In the sector of health and treatment services, since the service provision process for a person takes place with complex and unique behavioral dimensions, and the patient's (addict) behavior is also influenced by his special psychological and physical conditions, it is recommended that the personnel of the addiction treatment centers receive the psychological education about the appropriate behavior in different situations. Since part of the service quality score is determined by the two-way interactions between the personnel and the clients referring to the addiction treatment centers, the service quality gap can be reduced by better and more education and training the staff. In this regard, continuous training courses for understanding and recognizing the needs of the clients referring to the addiction treatment centers, establishing the reward systems, and the appropriate evaluation procedures, especially for modifying and elaborating respectful behaviors with the clients can be effective. In the current study, the six dimensions of service quality were identified from the highest to the lowest priority as access, tangibility, reliability, service assurance, accountability, and empathy. The above-mentioned priority should be a basis for determining the timing priority of the programs to improve the quality of the addiction treatment centers. The planners of the centers, with an emphasis on the higher priority dimensions, should use the resources of the organization more effectively. Since the exchange of experiences and knowledge can help reduce the communication costs and speed up the problem solving, it is suggested that a graded forum composed of managers, doctors, nurses, and staff be created separately in order to enhance the performance in the improvement service quality section or other sections by transferring and sharing the experiences, achievements, and opinions to each other.

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