Abstract:
The methods of measuring service quality and the dimensions of service quality have become a major area in literature during the previous few decades and Patients satisfaction is one of the most important indicators to determine the level of service quality provided by the healthcare service providers. Due to this idea, this study came to examine the impact of the service quality on disabilities patients satisfaction in the Arab City of Comprehensive Care in Jordan. This study indicates that disabilities patients’ satisfaction is influenced by eight common SERVQUAL dimensions which is Reliability, Accessibility, Competence, Understanding/Knowing the patients, Responsiveness, Assurance, Tangibility, Empathy, is proposed to strengthen the relationship of SERVQUAL Dimensions with patients satisfaction. The units of analysis of this study are individuals that attend to Arab City for Comprehensive Care in Jordan. Multiple regression analysis was employed to test the impact of service quality on patients satisfaction. The study findings revealed a positive relationship between healthcare service quality and overall patients satisfaction, and this study indicated that service quality is an important precedent of patients satisfaction, also It is apparent from the present study that managers and decision makers in Arab City for Comprehensive Care in Jordan are seeking to improve the elements of service quality that make the most significant contributions on Patients satisfaction.

Keywords:
Quality, Service Quality, Patients Satisfaction, Healthcare Service, SERVQUAL

Citation:
1. Introduction:
Jordan has been witnessing an increase concern regarding the quality health care services; this has been shown significantly after globalization and liberalization policies. With the increase of the living standards, the awareness people have on health care services have also increased. Healthcare has become a major concern for everyone and Jordan is lucky to have a very comprehensive range of healthcare services. Therefore, service quality has been shown to be an important factor in the consumer’s choice of hospitals and medical centers. The quality of the medical service was and still is considered as one of the modern topics since 1980. It took a huge space of the market services literature (Parasuraman et al., 1985, 1988). A quality health care system is the one which guarantees the continuity of care, not only for curative services, but for health promotion and prevention (Sajid & Baig, 2007). According to Sathiaseelan & Gnanapala, (2015) the quality of medical service’s interest becomes an important element in distinguishing institutions, attracting patients’ and increasing rates of retaining patients while maintaining their loyalty.

The quality of health care through the criteria of efficiency, cost effectiveness and social acceptability is a definition provided by The World Health Organization (Wilkinson, et al., 2004). While the totality of features and characteristics of a product or service that carry the ability to satisfy implied needs is defined as the Quality in healthcare (Korwar, 1997). Giving patients what they want and what they need is known as Health care service quality and is done using fewest resources, without errors or delays and within a higher level of regulations (Overtveit, 1992).

Modern literature indicates that patients’ satisfaction has a positive relationship with the quality of service (Zineldin, 2006). Whereas, there is an increase regarding the importance of healthcare services, as well as those provided in other sectors, patients’, who are healthcare service clients, are only satisfied with the services that they perceive as quality (Kayral, 2014).

Arab City for Comprehensive Care is one of the leading private medical centers in Jordan; it was established in 2010 in the North of Amman, as a distinguished medical facility with a mission of providing special education and rehabilitation for people with special needs. (ACCC, 2013). Special education and rehabilitation for people with special needs now shape a 13% of the Jordanian population whereas the males were 43% and the females were 57%, indicating that the highest disability was given to the physical and visual ones (HCD, 2015). Thus, this paper has come to investigate the impact of the quality service dimensions on disabled patients’ satisfaction through proposing a model that describes the impact of health care service quality in the Arab city for comprehensive care in Jordan.

2. Literature Review:
2.1 Quality and Service
Quality has been defined from various points of view as a defensive mechanism but it is seen as a competitive weapon for emergence of new markets as well as growing market share (Davis et al., 2003). Quality is defined by Crosby (1979) as consistency with fixed specifications and this agrees with the definition provided by Newrian & Cowling (1996) who defined Quality as anything that accords with the characteristics of the product to meet the external clients' needs. Quality is also defined by (Juran, 1974) as “fitness for use”. In user-based approach “conformance to requirements” (Crosby, 1979). In
The Impact of Health Care Service Quality....

manufacturing-based approach, quality compares with the satisfaction, whereas the higher the quality means the best satisfaction of consumers' preferences (Yarimoglu, 2014). Service is also defined differently. For example, the American Society for Marketing defined service as activities or benefits that are offered for sale or that are offered for being related to a particular product. Whereas, Kotler (2003) defined service as any behavior or act that is based on a contact between two parties (the provider and the receiver). On the other hand, Beer (2003) defined service as a set of characteristics and overall properties of the service that aim to satisfy the clients and meet their needs. Finally, Walfried, et al. (2000) defined service as a set of characteristics that meet the clients' needs, enhance clients' value and strengthen the links between the organization and them.

2.1.1 Service of Quality

Service quality is known as the difference and the gap between the actual performance of the service received and the customer's expectations of the service performance prior to the encountered service (Asubonteng et al., 1996) and (Parasuraman et al., 1988). It is also known as the customers' perception of how does a service meets or exceeds their expectations (Czepiel, 1990). (Parasuraman et al., 1985, 1988; Zeithaml et al., 2008) also defined Service quality as the differences between the customers' expectations of the service providers' perform and their evaluation of the services they have received (Sathiyaseelan, & Gnanapala, 2015).

To conclude, Service quality has a positive effect on the bottom line performance of a firm. Therefore, it is widely useful to achieve the benefit of industrial competition in the service market (Caruana, 2002; Cronin & Taylor, 1992).

2.1.2 Service Quality Model

In dispersion through the models for measuring service quality, the most recognized and applied models in a diversity of industries are the SERVQUAL (service quality) model which was developed by Parasuraman et al. 1985. The SERVQUAL scale is established on a gap model ((Parasuraman et al., 1985). that suggests that the gap between customers' expectations and their perceptions of actual performance is derived from the perception of service quality (Olgun, et al., 2014).

SERVQUAL has been subjected to numerous criticisms regarding its theoretical and operational aspects even though it is widely applied as an instrument for measuring service quality. SERVQUAL model was recommended by (Parasuraman et al., 1985, 1988) which is based on the confirmation and the disconfirmation theory (SQ=P–E). Hence, many marketing researchers have argued that neither disconfirmation theory nor expectation scores have any effect on the customer's satisfaction, (Carman, 1990; Cronin & Taylor, 1994; Teas, 1994; Buttle, 1996).

To avoid such weaknesses, various researchers proposed different structural models, but most of them are based on the SERVQUAL instrument, (Gronroos, 1984; Lehtinen & Lehtinen, 1985; Mels et al, 1997; Svensson, 2006). Relating to the health service, Piligrimiene & Buciuniene (2005). outlined the dimensions for measuring the quality of health care proposed by various researchers. Coulthard (2004) conducted a comprehensive review for the service quality researches since 1998 who also concluded that further research is required to control or inhibit the conceptual, methodological and interpretative
The perception scores (SERVPERF) have been mainly recommended for measuring service quality as it has a higher predictive validity of customers' satisfaction, (Cronin & Taylor, 1992; Babakus & Mangold, 1992; Lee, et al., 2000; Luk & Layton, 2004).

Naidu (2009) pointed out that SERVQUAL is suitable for measuring patients’ satisfaction. From that perspective and many others, SERVQUAL is considered to be a strong scale for measuring service quality across the service sectors in general due to the delivery of healthcare being considered as a public service, there is much potential to improve the level of patients’ satisfaction with the service through the following defined dimensions (Sajid & Baig, 2007).

- Reliability: is the ability of an organization to accurately achieve its services at the proper time and according to the promises it has made to its clients.
- Responsiveness: the tendency and willingness of service providers to help clients and satisfy their needs, immediately reply to their inquiries, and solve their problems as quickly as possible.
- Competence: having adequate skills and knowledge that enable the employees to perform their jobs properly.
- Accessibility: providing easy access to a service in terms of location and through services provided via the telephone, the internet, or any other means of communication.
- Courtesy: treating clients respectfully in a polite, friendly manner, understanding their feelings, and answering their phone calls gently.
- Communication: this occurs through gentlemanly listening to the client conveying information to them clearly and facilitating external communication with workers.
- Credibility: this can be achieved through full trust and confidence in the service provider as well as his honesty and straightforwardness.
- Security: this depends on whether the service is free from risks and hazards, defects or doubts so that it provides bodily safety, financial security as well as privacy.
- Understanding/knowing the customer: this can be made achievable through the ability to pinpoint the customers' needs as well as understanding their individual problems.
- Tangibility: this includes the physical aspects connected with services such as instruments and equipment, persons, physical facilities like buildings and nice decoration and other observable service facilities (Mohammad & Alhamadani, 2011; Abd Rashid et al., 2011).

To conclude, SERVQUAL model proposed a five dimensional that is constructed of perceived service quality tangibles, reliability, responsiveness, assurance and empathy as the instruments for measuring service quality (Parasuraman et al., 1988). Plenty of research that have been conducted only focused on the five given common dimensions of SERVQUAL (Mohammad & Alhamadani, 2011).

**Study Model:** SERVQUAL approach, which is the most common method for measuring service quality, will be used in order to measure the Health Service's quality of this study. Furthermore, the measurements will include the famous five dimensions in addition to dimensions that suitable for health care sector, which is summarized in: tangibility, reliability, assurance, empathy, responsiveness, access, understanding/knowing patients’, and competence (Parasuraman et al, 1985; Zamil & Areiqat, 2012; Clemes et al., 2001). These measurements will be used because they are readily available, widely used, they are suitable for Health Care sector and disability patients' category. The model of this study defines the disabilities patients’ satisfaction as the dependent variable, while the service quality at the centre of Arab City of Comprehensive Care as the independent variable.
The Impact of Health Care Service Quality...

which consists of Eight dimensions. The model appears in the figure (1). Regarding to the discussion above, a conceptual framework has been developed, which is comprised of the flow of the research that is presented in the following diagram.

![Conceptual Framework](image)

Figure 1: Conceptual Framework on the Relationship between Service Quality and Patients’ Satisfaction in the Arab City of Comprehensive Care in Jordan.

2.2 Patients’ Satisfactions

patients’ satisfaction has been described to have aspects of subjectivity, expectations and perceptions. patients’ satisfaction is a ‘complex mixture of perceived needs, expectations of care, and the experience of care’ (Wilkin et al. 1992;Abusalemet al., 2012). Moreover, patients’ satisfaction is one of the most widely used outcome indicators of quality of health care (Mahon, 1996). A review of the literature shows that the patients’ satisfaction has been used in the evaluation of many healthcare programs, including rehabilitation programs, discharge and home follow-up programs, care process, and management practices (Finkelstein et al. 2004;Tsai et al. 2005;Be’land et al. 2006;Jones et al. 2007). As a result, patient satisfaction is an active area of research that is increasingly being used to guide health care, because it encompasses patients’ needs(Abusalemet al., 2012). In the healthcare sector, the importance of measuring patients’ satisfaction is well articulated (Lin and Kelly, 1995) with patient satisfaction having been studied and
measured broadly as a stand-alone construct and as a component of outcome quality (Heidegger et al., 2006) and in particular in quality care assessment studies (Sofaer & Firminger, 2005; Gill & White, 2009).

All in all, many believe patients’ can easily identify characteristics of quality of care. Still, the main premise of patients’ satisfaction that most agree upon is that if the care offered meets the healthcare goal, the patients’ will be satisfied (Abusalemet al., 2012). Although patients’ satisfaction has been one of the many measured care outcomes in home health and other healthcare areas, it is still ambiguous about what the concept of patients’ satisfaction actually means and how to accurately capture this outcome (Yellen, 2003; Wagner & Bear 2009).

2.3 Relationship Between Quality Service and Patients’ Satisfaction

Between 1960 -1970, patients’ satisfaction was considered an influential factor, which affected the clinical outcome as well as leading to legitimate right for patients’ to achieve the best quality in hospitals and clinics (Navidet al., 2010). Whereas, Zeithaml et al., (2008) proposed that customer satisfaction is influenced by customers’ perceptions of quality. Service quality is a former broader concept of customer satisfaction (Buttle, 1996; Lee et al., 2000) and the relationship between service quality and loyalty is resolved by satisfaction (Caruana, 2002; Fullerton & Taylor, 2002). The construct of consumer satisfaction refers to the consumer’s fulfillment response or emotional feelings about a specific consumption experience (Choi et al., 2005). It has been noted that while perceived service quality is a cognitive construct, consumer satisfaction is an affecting one, and this suggests a causal relationship between these two constructs in which service quality plays the role of an antecedent of consumer satisfaction (Choi et al., 2005). Therefore, the concept of patients’ satisfaction was introduced as a critical factor in the measurement of service quality (Navidet al., 2010).

Healthcare sector research into patients’ perceptions of the dimensions of service quality (perceived service quality) has been limited (Clemes et al., 2001; Gill & White, 2009). Marley, et al., (2004). found that the ability of patients’ to evaluate process quality than clinical quality has its own impact on patients’ satisfaction. Duggirala etal., 2008; Shabbir etal., 2010) identified that service quality has significant impact on patients’ satisfaction. Vidhya et al., (2013) Presently, the health care consumers are more aware of medical service and they have a better knowledge about the quality of service than earlier. Therefore, it has become an important factor to provide better quality services to meet the patients’ expectations (Sathiyaaseelan& Gnanapala, 2015). The relationship between service quality and customer satisfaction has received considerable attention in the marketing literature (Brady et al., 2001; Cronin & Taylor, 1992; Meuter et al., 2000; Olorunniwo et al., 2006). Therefore, the relationship between healthcare quality and patients’ satisfaction is a great source of debate (Elleuch, 2008). and the concept of patients’ satisfaction has become more important (Singh, 2010).

In the last years, the measurement of the service’ quality from the patients’ perspective has slightly changed. In fact, measures more closely related to patients’ experience were introduced asking patients’ to report in detail the episodes of care and not only to rate them (Cleary et al., 1992; Cleary 1999). These measures were mainly adopted because they help to better understand the multidimensional and subjective nature of satisfaction and allow working on quality improvement using more objective information.
3. Methodology
The present study attempts to analyze the impact between the independent variables and the dependent variable, through collecting enough data to test hypotheses, a survey was conducted to collect data from a sample. In total, 100 questionnaires were distributed randomly to customers of Arab City for Comprehensive Care center, this is justified according to (Sekaran, U., 2006) that the sample sizes between (30 - 500) are used depending on how appropriate and effecting the kind of sampling design used and research questions implemented. The primary data collection tool was the questionnaire survey. The construct quality was measured by using eight dimensional SERVQUAL model and the questionnaire was prepared to evaluate the level of service quality and patient satisfactions. Accordingly, the prepared questionnaire consists of 52 questions. The utilized scales of the questionnaire, Likert scales were used as a measurement for the respondents with scoring of 1 (Strongly Disagree) to 5 (Strongly Agree), while the customer satisfaction instrument was borrowed with similar point Likert scale.

The collected data were analyzed through SPSS package using different statistical methods to find out the influence of the service quality on patients’ satisfaction. These methods include first, the descriptive statistics, which involves in collecting, summarizing and presenting data through frequency distribution, central tendency, and the dispersion. Second, multiple regression analysis was used to find out the impact of the service quality on the patients’ satisfaction.

4. Results And Discussions
This section presents the results of the data analysis related to the service quality and patients’ satisfaction related to the Arab City for Comprehensive Care center in Jordan.

4.1 Instrument Validity
The internal consistency reliability is measured by applying Cronbach’s alpha test to assess the Arab City for Comprehensive Care Centre. Table 4.1 indicates that The services and the related questions from the Cronbach’s Alpha for each variable were above 0.71. Based on the result from the pilot test, it showed a strong reliability which was achieved for all the questions of the questionnaire measures. The Cronbach’s Alpha coefficient is above 0.71. Thus, the value exceeds the accepted a cutoff value of 0.70, as suggested by (Nunnally, 1978).This indicates that each individual item is internally consistent and a high degree of reliability.

Table 4.1. Cronbach's alpha for the study fields

<table>
<thead>
<tr>
<th>FieldNumber</th>
<th>Field</th>
<th>Value of (α)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reliability</td>
<td>0.80</td>
</tr>
<tr>
<td>2</td>
<td>Access</td>
<td>0.84</td>
</tr>
<tr>
<td>3</td>
<td>Competence</td>
<td>0.78</td>
</tr>
<tr>
<td>4</td>
<td>Understanding/Knowing the</td>
<td>0.91</td>
</tr>
</tbody>
</table>
As shown from the table above that the total Cronbach’s alpha for the study fields was valued above (0.70) which will lead to the stability of the results for this study.

4.2 Demographic Characteristics of The Respondents

The patients’ who participated in the survey comprised with more female respondents (39 percent) compared to the male respondents (61 percent) showed in Table (4.2). When considering the age category of the existing customer groups of the center, the major portion of the respondents (46 percent) were 18-34 years and above in age, and the rest 26 percent were under 18 years, 24 percent of them were between 35-44 years, 2 percent were between 45-55 years, 2 percent were more than 55 years old. The figures indicate that more of the young generation is taking treatments from the Arab City for Comprehensive Care center and less percentage of the elderly take treatments. Table (4.3). The table 4.2, 4.3 shows the demographic information of the respondents very clearly.

| Table 4.2: Characteristics of Respondents According to the (Gender) |
|---------------------------------|-----------------|-------------|
| Sex                | Frequency | Percent |
| Male               | 61.0      | 61%       |
| Female             | 39.0      | 39%       |
| Sum                | 100       | 100.0%    |

| Table 4.3: Characteristics of respondents according to the Age |
|---------------------------------|-----------------|-------------|
| Years            | Frequency | Percent |
| Under 18        | 26.0      | 26%       |
| 18-34 Years     | 46.0      | 46%       |
| 35-44 Years     | 24.0      | 24%       |
| 45-55 Years     | 2.0       | 2%        |
4.3: Descriptive Statistics of Service Quality And The Patients’ Satisfaction

This paper investigated the service quality and the disabilities patients’ satisfaction related to the Arab City for Comprehensive Care in Jordan district. Therefore, first we analyzed the data using the descriptive statistics to identify the impact of the service quality dimensions (independent variable) i.e. Reliability, Access, Competence, Understanding/Knowing the patients’, Responsiveness, Assurance, Tangibility, Empathy to the dependent variable (disabilities patients’ satisfaction). The detailed information is presented in the table 4.4.

### Table 4.4: Descriptive Statistics

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Mean</th>
<th>Standard Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>3.4218</td>
<td>0.67505</td>
</tr>
<tr>
<td>Access</td>
<td>3.6615</td>
<td>0.6717</td>
</tr>
<tr>
<td>Competence</td>
<td>3.8240</td>
<td>0.65096</td>
</tr>
<tr>
<td>Understanding/Knowing the patient</td>
<td>3.6889</td>
<td>0.55488</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>3.6373</td>
<td>0.5033</td>
</tr>
<tr>
<td>Assurance</td>
<td>3.589</td>
<td>0.342</td>
</tr>
<tr>
<td>Tangibility</td>
<td>3.6541</td>
<td>0.3576</td>
</tr>
<tr>
<td>Empathy</td>
<td>3.5832</td>
<td>0.3886</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>3.646</td>
<td>0.4601</td>
</tr>
</tbody>
</table>

According to table 4.4 the mean & standard deviation of Reliability, Access, Competence, Understanding/Knowing the patients’, Responsiveness, Assurance, Tangibility, and empathy dimensions of service quality exist at an equivalent level. The values of table 4.4 say that eight dimensions positively influence on the satisfaction of the patients’ who come to the centreof Arab City for Comprehensive Care in Jordan.

4.4. Regression Analysis of Service Quality And The Patients’ Satisfaction

Based on the objectives and hypotheses of the study, the researchers applied the multiples regression Analysis. The logical basis of the multiple regression analysis is to learn more about the relationship between the independent variables and the dependent variable. Further, the purpose of regression analysis use is to find out the significant impact of the
independent variable on the dependent variable. In this study, service quality is considered as the independent variable and the patients’ satisfaction is considered as the dependent variable. The tables (4.5) display the results of the regression analysis based on the significant level of (0.05) and it will be followed by the discussion of the results.

Table 4.5. The results of multiple linear regression analysis to test the effect of the Impact of Health service quality provided by the Arab City for Comprehensive Care on disabilities patients’ satisfaction

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>R</th>
<th>R²</th>
<th>F</th>
<th>DF</th>
<th>Regression Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disabilities Patient Satisfaction</td>
<td>0.754</td>
<td>0.568</td>
<td>127.451</td>
<td>98</td>
<td>Health service quality 1.001</td>
</tr>
</tbody>
</table>

Significance level (α =0.05)

Table (4.5) above shows that the F value is (127.451) with a significance equal 0.00, which is less than (0.05) and the adjusted R square is 0.568. It indicates that the independent variable (service quality) impact is 56.8% on the dependent variable (patients’ satisfaction). By looking at the sig that there is significant Impact of Reliability in services provided by the Arab City for Comprehensive Care on the disability patients’. As shown in the above table, we will accept the Hypothesis, which states that “There is a positive impact of Reliability in services provided by the Arab City for Comprehensive Care on the disabilities patients’ satisfaction”.

5. Conclusion

Many studies have been done to the satisfaction of patients’ locally and internationally, but limited studies were done on disabled patients’ satisfaction in Jordan. Furthermore, only a few studies have been found evaluating the provider’s understanding of the patients’ perceptions of health service quality and very few studies of recognized public healthcare service quality has been undertaken (Gill & White, 2009).

This study basically focused on the impact of the service quality to the disabled patients’ satisfaction, and the study was carried out in the Arab City of Comprehensive Care in Jordan in Amman district. The well-known service quality (SERVQUAL) dimensions developed by Parasuraman et al. (1985) used to measure the independent variables and the patients’ satisfaction was the dependent variable. This study revealed that through descriptive statistics and regression analysis results a positive relationship between healthcare service quality and overall patients’ satisfaction. Also this study indicated that service quality is an important precedent to the disabled patients’ satisfaction, therefore it was shown from the present study that managers and decision makers in Arab City for Comprehensive Care in Jordan are seeking to improve the elements of service quality that make the most significant contributions to the disabled Patients’ satisfaction.

Reference


The Impact of Health Care Service Quality...


