The Factors Predicting Students’ Satisfaction with Universities’ Healthcare Clinics’ Services
A Case-Study from the Jordanian Higher Education Sector

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ABSTRACT
In this paper, customer satisfaction cues in universities’ healthcare clinics’ services in Jordan are examined. The study proposes an instrument of students’ satisfaction that considers healthcare service quality in the narrow view and educational service quality in the wider view; such attributes are medical services’ prices, doctors' experience, medical clinics’ convenience, temperature and cleanliness, and treatment by employees. The researcher used both secondary and primary data resources to study this phenomenon and adapt a quantitative approach to survey students who use such services as a main means of data collection. The questionnaires were directly distributed to the students and were retrieved immediately after completion. 500 questionnaires were distributed and the response rate was 60%. A 5-point Likert Scale has been used in all questionnaire items beyond the demographical elements to examine student satisfaction with identified healthcare services provided by one of the Universities in Jordan. The Regression method was used to test all study hypotheses. The study found that students were satisfied with medical service centre location and medical services' prices, doctors' experience, medical clinic temperature and cleanliness, and treatment by employees, but were dissatisfied with appointment waiting times. Additional issues have been explained regarding hypotheses development, testing and discussions supported by recommendations for future studies purposes.

Keywords: Higher Education, Universities’ Healthcare Clinic Services, Student Satisfaction, the Hashemite Kingdom of Jordan.

1. Introduction

Customer satisfaction is essential for firms in the service sector in the present consumer market and it will receive a great deal of attention from scholars over the coming years. This is because customers are considered a real asset to service firms, the majority of which are facing consumer base losses to a considerable degree (Swanson and Hsu, 2009). The rapid change and reform of the market has increased the types and levels of services offered by all organizations to end consumers. Accordingly, competition among universities has broadened as they attempt to attract both local and/or international students. Students these days have become aware of the additional services that need to be offered by universities and people who invest in the higher education industry, even more than the education service itself, in order to attract new students. This study aims to investigate the extent to which students are satisfied with healthcare services provided by the University of Jordanian universities and to identify the main factors that affect the healthcare services provided.

In the context of service marketing in both profitable and non-profitable organizations, customer satisfaction with a firm’s products or services is often seen as the key to a firm's success. Thus, this study pays particular attention to one of the main services that students use as a criterion on which to assess a variety of education institutions. Also, no previous studies have targeted healthcare services provided by any of the Jordanian Universities. This lack of studies enhances the chance of researching such services and will give them more prominence in the coming years. Also, the main factors that affect healthcare services from students’ point of view is a vital issue that should be taken into consideration when evaluating universities and studying

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university clinics’ availability and quality.

The measurement of student satisfaction can be useful for identifying areas in need of improvement. Students’ satisfaction does not always come from the level of education they receive; sometimes, providing a variety of supplementary services will add more value and contribute essentially to students’ satisfaction. It is not enough to know the degree to which students are satisfied with particular services; it’s also important to understand the factors that contribute to students’ satisfaction and how they express their opinions regarding the various university services they receive. The next part expresses the research objectives clearly.

2. Research objectives

Based on previous healthcare service issues, the main objective of this study is to determine the main factors that affect students’ satisfaction with healthcare services provided by the University of Jordanian. To add more value to this factor, a set of questions has been planned to be answered as follows: Is the clinic’s location good? What is the relationship between the price of the clinic’s services and the level of student satisfaction? What is the relationship between the time that students spend inside the clinic and the level of student satisfaction? Does the clinic temperature affect the level of student satisfaction? What are the effects of the employees’ treatment of the students on the level of student satisfaction? Does doctors’ experience affect the level of student satisfaction? Also, additional objectives can be highlighted such as stating the degree of students’ satisfaction with healthcare services provided by the universities’ healthcare centres and provide recommendations that could be adopted by the University to improve its healthcare services to increase students’ satisfaction.

3. Literature Review

According to Iglesias and Guillen (2004), in order to have a distinctive competitive advantage, organizations in today’s competitive markets must analyze the main factors that affect and are affected by customers’ satisfaction. Customer satisfaction has been defined as a complete meeting of the expectations constituted about the products or services (Oliver, 1980). On the same theme, Sanchez-Franco et al. (2009) defined customer satisfaction as the favourable affective response of customers who find the cumulative service interactions worthwhile, pleasing and motivating.

Over the past few decades, customer satisfaction has received much attention from many scholars such as Santouridis and Trivellas (2010) who highlighted the importance of studying such a phenomenon because it has a significant effect on business performance, profitability, service quality and customer loyalty. Based on that, consumer satisfaction has been connected directly and indirectly with many other interrelated business issues such as service quality (Shonk and Chelladurai, 2008), customer loyalty (Kandampully, 1998; Parasuraman et al., 1990), repurchase intention (Fornell, 1992) and value (Laroche et al., 2004). For example, Santouridis and Trivellas (2010) studied the customer satisfaction issue and found that it represents one of the essential drivers of customer loyalty; they also found it has a major effect on both the attitudinal and behavioural elements of customer loyalty. When satisfaction increases above a certain limit, repeat purchase and loyalty increases rapidly, and when satisfaction falls below a different limit, customer repeat purchase and loyalty decreases rapidly. Therefore customers who are very satisfied are more likely to repurchase products/services than customers who are merely satisfied (Jones and Sasser, 1995). Also, customer satisfaction leads not only to customer commitment but also to customer loyalty. Heere and Dickson (2008) have used the degree of customers’ commitment to a service product under different levels of satisfaction.

Within the universities’ health clinic units, studying students’ satisfaction with the various services provided by universities to their students beyond the educational content has not attracted much interest from scholars. However, a variety of clinic-related issues has been targeted such as patients’ appointment times, patient satisfaction and student satisfaction (Hajioff and Birchall, 1999), customer satisfaction with service encounters (Smith et al. 1999), patients’ and students’ perception of general presentation and location of clinics (Rogers et al. 2003), patient satisfaction with primary healthcare (Gregory, 1983), patient satisfaction with treatment time and outcomes (Eberting et al., 2001), monitoring patient satisfaction with university dental services under two fee-paying systems (Chu et al., 2001), patient satisfaction with a dental school (Lafont et al., 1999), patient
satisfaction with the comprehensive care model of dental care delivery (Mascarenhas, 2001), and the effects of service quality and the mediating role of customer satisfaction (Caruana, 2002).

Chu and Lo (1999) studied patients’ satisfaction with the dental services provided by a university in Hong Kong. The study was about the consumer evaluation of the dental care services provided by university students, staff and their dependents. The objectives of this study were as follows: to study the consumers’ satisfaction with dental services; to identify their reasons for not using the dental services; and to compare the opinions of the students with those of the university staff and their spouses. A total of 140 students and 180 staff and their spouses were randomly selected for this study. The response rates were 100 per cent for students and 77 per cent for staff and their spouses. The results showed that both groups of respondents were satisfied with the quality of dental services provided by the university dental clinic. However, they were not satisfied with the long waiting time for an appointment. Students who had not attended the university dental clinic commonly stated that they were busy and had no time for dental visits. Conversely, many staff and their spouses did not seek care from the university dental clinic because they thought that the fees were high. However, the overall Dental Satisfaction Index (DSI) scores for the students (64.5) and staff and their spouses (65.1) were similar. Based on that, there were differences in the aspects of the services with which the two groups were satisfied or dissatisfied. Thus, if the university dental clinic wants to implement changes so as to improve consumer satisfaction and utilization, a careful analysis of the specific opinions of its various consumer groups is required. Another study has been conducted by Kalma (1993) to measure university students’ satisfaction with a campus family planning clinic in Costa Rica. A total of 53 respondents (a convenient sample) completed a self-administered questionnaire, and around 65% of them were single. Respondents stated that their satisfaction with some aspects of the clinic’s services was high while other aspects were rated as very poor, such as the clinic’s low visibility on campus. The majority of students mentioned that the clinic provided many good services and consultations and 85% of students reported that they would definitely return to the clinic while 15% of the respondents stated that they would consider returning.

Based on the previous explanation, some researchers such as Kalma (1993) and Chu and Lo (1999) demonstrated that the university clinical research settings and students’ medical practices and evaluation were undermined. Thus, this research takes a close look at some of the main campus clinic services that students receive in one of the Arabic countries where such a topic is rarely investigated.

3. 1. Service location and satisfaction

Service firms’ location has attracted much interest from scholars from a variety of aspects such as convenience, (Parasuraman et al., 1985; Athanassopoulos, 2000). A convenient service location means that customers can easily access and do business with the service firms. Many interrelated location issues such as convenience and accessibility are found to be important antecedents of customer satisfaction (Jamal and Naser, 2002). Lee (2004, cited Kim et al., 2009) found that service quality, convenience, cleanliness, speed of service, location, reasonable prices, food quality and value are important dimensions affecting customer satisfaction. Accordingly, organizations tend to choose the right place to establish their business and secure customers with their products/services location (Anderson and Sullivan, 1993). In different service sectors such as hotels, hospitals and restaurants, location is an important element of their success. Thus, the relationship between service firms’ location and customer satisfaction has been targeted by many scholars such as Athanassopoulos (2000), Fornell et al. (2006) and Hocutt et al. (1997).

Does the satisfaction experienced by patients differ from that of non-patients? Many non-patient care issues have been investigated by numerous scholars such as Beattie et al. (2002), such as clinic location, equipment and parking, all of which were found to be less important in determining patient satisfaction. Based on the previous explanation, the first hypothesis has been drawn up as follows:

H1: Service location has a direct effect on students’ satisfaction.

3. 2. Service price and satisfaction

Price plays an essential role in determining the consumer’s satisfaction in any discrete service exchange process (Voss et al., 1998). Price is defined by the author for the purpose of this study as ‘the amount of monetary value that a customer sacrifices to obtain a service or products in return’. Lapierre (2000, cited Hedlund, 2004) has defined a variety of non-monetary costs paid
by a customer: time, effort, energy and conflict that are usually invested by the customer to obtain products or services or to establish a relationship with a supplier. In many service studies, it has been mentioned that customer satisfaction usually occurs as a consequence of a customer’s perception of the value received; it is also pointed out that customer value is determined based on service quality in relation to price sacrificed (Cronin et al., 2000).

Some scholars such as Anderson (1996) and Cao et al. (2003) have studied the effect of price tolerance on customer satisfaction. Anderson (1996) reported that a satisfied customer is willing to pay more or tolerate more before switching service organizations. Thus, it becomes essential to study service offerings’ effect on commutative consumers’ satisfaction. Also, Gardner (1971) and Zeithmal (1988) have investigated the price-quality relationship. Service price may increase as long as customers perceive value and service quality. In addition, a study has been conducted by Andreassen and Lindestad (1998) to explain the mutual relationship between price and quality, mentioning that price gives quality and quality gives price. Based on the previous explanation, the second hypothesis has been drawn up as follows:

**H2: Service offering’s price has a direct effect on students’ satisfaction.**

### 3.3. Time spent waiting to receive the service

A customer’s time has become one of the main factors affecting his/her decisions nowadays and its importance has increased over time (Keaveney, 1995). The temporal factor has a variety of elements that can appear in different situations such as waiting to receive a specific service and waiting to determine an appointment (e.g. at a bank) (Parasuraman et al., 1985; Keaveney, 1995). Both customer/service firms’ employees’ interaction time and consumers’ waiting time are considered parts of consumers’ evaluation process and satisfaction in both the encounter and post-counter stages (Hallowell, 1996; Athanassopoulos, 2000).

If service delivery takes place over an extended period of time, a customer usually experiences an unsatisfactory level of service offerings (Bloemer and De Ruyter, 1999). Moreover, some service organizations fail because they offer inconvenient locations/times for both core and/or supplementary service elements. This issue has been confirmed by Keaveney (1995) who explained that requiring customers to wait for core or supplementary service elements to be delivered is one of the weaker aspects of most organizations, causing customers to switch their service firms (Keaveney, S. (1995). Based on the previous explanation, the third hypothesis has been drawn up as follows:

**H3: Time spent waiting to receive the service has a direct effect on students’ satisfaction.**

### 3.4. Treatment by employees and customer satisfaction

Hennig-Thurau (2004, p.460) stated that “with the performance of service personnel often constituting a major element of a service per se, the customer orientation of service personnel is often regarded as a main determinant of service firms' success”. Accordingly, and as part of the internal marketing paradigm, service institutions put much effort into searching for, finding, employing, training and rewarding good employees who can interact with and treat customers properly. The employees’ main task is to attract customers and persuade them to purchase the firm’s products and services (Bowers and. Martin, 2007). Thus, it has been illustrated by many scholars such as Hennig-Thurau et al. (2006) and Peterson & Wilson (1992) that employees who deliver “service with a smile” and fair treatment increase customers’ satisfaction and help service firms build strong relationships with their customers. Moreover, proper employee/customer interaction plays a major role in delivering high-quality services. Thus, customer/employee interaction has become important, especially in service firms that have high personal interaction during the encounter stage (Alshurideh, 2010). As stated by many scholars such as Priluck (2003), satisfaction has been found to be one of the main customer retention antecedents, and employees have a positive direct influence on customer retention (Szymanski and Henard, 2001, cited in Hennig-Thurau, 2004). Thus, in order to retain customers, service organizations should retain and train their employees and reward them accordingly. Furthermore, Lee et al. (2007) advised that healthcare managers need more strategies to improve physicians' and nurses' communication skills in order to enhance customer satisfaction (Lee et al., 2007). Based on the previous explanation, the fourth hypothesis has been drawn up as follows:

**H4: Treatment received from employees has a direct effect on students’ satisfaction.**
3.5. Clinic cleanliness and customer satisfaction

The relationship between clinic cleanliness and customer satisfaction has attracted scholars’ interest basically as one of the health service clinics’ quality dimensions. Anderson (1995) designed a study to assess the quality of services provided by a public university health clinic (University of Houston Health Center) in order to evaluate customer perceptions of service quality using the SERVQUAL model. Anderson found that there are many factors affecting health service quality that contribute mostly to customer satisfaction such as nurses’ attitudes towards patients and cleanliness of clinics’ facilities. Many other scholars such as Mittal & Lassar (1998) and Joppe et al., (2001) found that cleanliness drives patients’ satisfaction. Medical clinics are usually administrated with specific standards that refer to governmental or national health service regulations but such standards in most cases are not maintained or need close follow-up routines. That is because, behind the regulations, the cleanliness of rooms, bathrooms and floors have a great impact on customers’ satisfaction and have also been seen as challenges facing healthcare organizations (Dorothy, 1993; Zoller et al. 2001). Although universities’ health units’ cleanliness has not attracted much interest from scholars, the fifth hypothesis has been drawn up as follows:

H5: Clinic cleanliness has a direct effect on students’ satisfaction.

3.6. Clinic temperature

Many factors have been used to study the strengths and weaknesses of healthcare service quality such as the level of comfort of room temperature, courtesy of housekeeping staff, cleanliness of the hospital in general, clinic light, temperature, patients, waiting times, advice, modern equipment, and noise level in and around patients’ rooms (Clerfeuille and Poubanne, 2003; Noone et al., 2003; Lee et al., 2007). Furthermore, physical behaviour elements such as customer density and crowding, temperature, and volume and tempo of music are found to be important factors for service product, delivery and consumption in different contexts (e.g. supermarkets and hospitals) (Noone et al., 2009). As shown previously, clinic temperature is considered one of the main healthcare clinic service quality elements and has attracted the attention of many scholars such as Lee et al. (2007), Noone et al. (2009), Zineldin (2006) and Clerfeuille and Poubanne (2003). However, universities’ health clinics’ temperature has rarely been investigated and has not attracted much interest from scholars.

By using the ‘listening to the voice of the patient’ (VOP) service, a study has been conducted by Lee et al. (2007) to investigate how patients evaluate the image of service quality and customer satisfaction from the perspective of healthcare services. Results indicated that patients care more about physician care, have less concern with “hospital costs”, and give special consideration to other supplementary healthcare elements such as room temperatures and general hospital cleanliness. Based on the previous explanation, the sixth hypothesis has been drawn up as follows:

H6: Clinics’ temperature has a direct effect on students’ satisfaction.

3.7. Doctors’ experience

Doctors’ experience is not an abandoned area of research but studying such a phenomenon on the university campuses and giving it special attention in the context of Jordanian universities medical units will add value. That is because, in the health service sector, doctors’ experience is the main element in patients’ satisfaction which they rely on when evaluating doctors’ medical service delivery (Krupat et al., 2000). Many scholars have studied the effect of doctors’ experience on patients’ satisfaction such as Krupat et al. (2000) and Savage & Armstrong, 1990). Andreassen and Lindestad (1998) mentioned that customer satisfaction is a measure of the customers’ experience based on evaluation of the service and/or product providers. For example, a study by Rosenblatt and Manning (1986, cited in Athanassopoulos, 2000) revealed that convenient location, speed of service, staff competence and employees’ friendliness as important determinants of customer satisfaction.

If a student derives a high degree of satisfaction from dealing with the doctors who work for the university health clinic then he or she will prefer to repeat their visit. If students receive a satisfactory health service that meets their expectations then they are likely to make repeat visits to the same doctors. This will not only improve students’ perception of their health needs and solve their health problems but will also help increase students’ awareness of how to pursue a healthy lifestyle (Davies et al., 2000; Yorgason et al., 2008). However, if a student is not satisfied and is unhappy with the doctor’s medical capabilities and experience, he or she will no longer visit
such medical units and will have negative images not just of the medical units but of the university as a whole. Kahneman and Tversky (1979, cited in Bolton, 1998) remind us that customers usually weigh negative experience more heavily than positive experience. Based on the previous explanation, the seventh hypothesis has been drawn up as follows:

**H7: Doctors’ experience has a direct effect on students’ satisfaction.**

### 4. Research Theoretical Framework

The research model can be drawn as:

![Research Theoretical Framework Diagram](image)

**Figure (1) Study model has been adapted from many previous scholars works whom are: Ware et al., 1983; Thompson et al., 1996; O’Hara, 1997; Bratton, & Short, 2001; Piette, 2001; Hodnett, 2002; Leibowitz et al., 2003; Baker, 2003; Vahey, 2004; Zineldin, 2006; Tung & Chang, 2009; and Reid et al., 2010.**

### 5. Research methodology and data collection

For the purposes of this study, the researcher used both secondary and primary data resources to study this phenomenon. Secondary data included the references and websites that were used to design the conceptual framework and cover the literature review; Primary sources comprised a questionnaire developed to measure the dimensions and variables of this study. Mainly, the present study adopted a quantitative research design to elicit the required data and achieve the study’s purposes. The study adapted the quantitative approach with respect to Noll’s (cited in Koivisto and Urbaczewski, 2004) opinion that customer satisfaction surveys have been used heavily as the main indicators of perceived service quality and customers’ opinions.

The survey was distributed to a simple random sample of students from one of the University in Jordan. The questionnaires were directly distributed to the students and were retrieved immediately after completion. 500 questionnaires were distributed and the response rate was 60%. The respondents were surveyed after a formal agreement had been reached with the related departments. The study purposes and the survey’s outlines were explained to potential respondents. In addition, all ethical issues regarding data collection and data usage were promptly communicated to the study sample. The questionnaire consisted of various questions designed to cover all the important parts of this study. The questionnaire used a 5-point Likert Scale (strongly agree, agree, indifferent, disagree and strongly disagree) to study student satisfaction with identified services provided by the Jordanian Universities. In the later analysis stage, Multiple Regression analysis was used to measure the relationships between the predictor and criterion variables and test all the study hypotheses.

### 6. Data analysis and discussion

#### 6.1. The general characteristics of the study sample

Data analysis showed that about 53% of the study sample was female, while males comprised about 46.7%. Also, about 40% of the study sample had other healthcare medical insurance. The study found that the proportion of students who had visited the university medical clinic 3 times or less was 51.7% while the percentage of students...
who had visited the university clinic 4 times was 28.3%, and the proportion of students who had visited the clinic more than 4 times was about 20%.

6.2. Hypotheses testing

6.2.1. The First Hypothesis:

H1: Service location has a direct effect on students’ satisfaction.

Table (1) shows that regression analysis was used to test the effect of the service location on students’ satisfaction. Results indicated that the magnitude of relationship is (0.522); the value of $R^2$ is (27.2%) which reflects the amount of variance that service location contributed to students’ satisfaction. This relationship is considered to be significant as the value of significance level is (0.00) which is less than 0.05. The t value indicates the presence of a relationship between service location and students’ satisfaction.

With this result, analysis confirms that there is a significant effect of service location on students’ satisfaction. Many scholars such as Shankar et al. (2003) and Bloemer & Ruyter (1998) have achieved the same results, mentioning that service location can be considered one of the healthcare consumer satisfaction drivers.

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<tr>
<td>Service location</td>
<td>0.522</td>
<td>0.272</td>
<td>21.72</td>
<td>0.00</td>
<td>4.66</td>
<td>0.00</td>
<td>Accept</td>
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6.2.2. The Second Hypothesis:

H2: Service offering’s price has a direct effect on students’ satisfaction.

Table (2) shows that regression analysis was used to test the effect of the service price on students’ satisfaction. The table indicates that the magnitude of relationship is (0.486); the value of $R^2$ is (23.6%) which reflects the amount of variance that service price contributed to students’ satisfaction. This relationship is considered to be significant as the value of significance level is (0.00) which is less than 0.05. The t value indicates the presence of a relationship between price and students’ satisfaction.

With this result, analysis shows that there is a significant relationship between healthcare service price and students’ satisfaction. Some scholars such as Anderson et al. (1994) achieved the same results, mentioning that service price is one of the main customer satisfaction antecedents.

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<tr>
<td>Service price</td>
<td>0.486</td>
<td>0.236</td>
<td>17.88</td>
<td>0.00</td>
<td>4.23</td>
<td>0.00</td>
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6.2.3. The Third Hypothesis:

H3: Time spent waiting to receive the service has a direct effect on students’ satisfaction.

Table (3) shows how regression analysis has been used to test the effect of the time required to receive the medical service on students’ satisfaction. Table 3 indicates that the magnitude of relationship is (0.585); the value of $R^2$ is (34.3%) which reflects the amount of variance that the time required to receive the medical service contributed to students’ satisfaction. This relationship is considered to be significant as the value of the significance level is (0.046) which is less than 0.05. The t value indicates and confirms the relationship between the time required to receive the service and students’ satisfaction.

With this result, the hypothesis is accepted as there is a relationship between the time required to receive the medical service and students’ satisfaction. Hui et al. (1998) studied the effect of delay type and service stage on consumers’ reaction to waiting and found consumers’ waiting time is important and affects their satisfaction. Also, Taylor (1994) studied the relationship between delays and evaluations of service and found that there is a negative relationship between time spent waiting and service positive evaluation.
6.2. 4. The Fourth Hypothesis:  
**H4: Treatment by employees has a direct effect on students’ satisfaction.**

Table (4) shows how regression analysis has been used to test the effect of treatment by employees’ factor on students’ satisfaction. The results indicate that the magnitude of relationship is (0.622); the value of $R^2$ is (38.6%) which reflects the amount of variance that treatment by employees and friendly behavior with patients contributes to students’ satisfaction. This relationship is considered to be significant as the value of significance level is (0.00) which is less than 0.05. The $t$ value indicates the presence of a relationship between treatment by employees and students’ satisfaction.

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<th>Independent</th>
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<tr>
<td>Time to receive the service</td>
<td>0.585</td>
<td>0.343</td>
<td>30.24</td>
<td>0.06</td>
<td>5.49</td>
<td>0.046</td>
<td>Reject</td>
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With this result, analysis confirms that there is a significant effect of treatment by employees on students’ satisfaction. Students in general prefer to be treated fairly by service organizations’ employees through both direct and indirect interaction. Findings by Samdal et al. (1998) support this result, mentioning that the main student satisfaction predictors are feeling that they treated fairly, feeling safe and feeling that their teachers and lecturers are supported.

6.2. 5. The Fifth Hypothesis:  
**H5: Clinic cleanliness has a direct effect on students’ satisfaction.**

Table (5) shows how regression analysis is used to test the effect of clinic cleanliness on students’ satisfaction. Results indicated that the magnitude of relationship is (0.684); the value of $R^2$ is (38.6%) which reflects the amount of variance that clinic cleanliness contributes to students’ satisfaction. This relationship is considered to be significant as the value of significance level is (0.00) which is less than 0.05. The $t$ value indicates the presence of a relationship between clinic cleanliness and students’ satisfaction.

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<th>Independent</th>
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<tr>
<td>Treatment by employees</td>
<td>0.622</td>
<td>0.386</td>
<td>36.52</td>
<td>0.00</td>
<td>6.04</td>
<td>0.00</td>
<td>Accept</td>
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With this result, analysis confirms that there is a significant effect of clinic cleanliness on students’ satisfaction. Such results have also been found in other interrelated healthcare service contexts such as patient satisfaction in a dental school (Lafont et al., 1999), patient satisfaction with primary care (Concato and Feinstein (1997) and students’ satisfaction with university hostels (Khozaei et al., 2010).

6.2. 6. The Sixth Hypothesis:  
**H6: Clinic’s temperature has a direct effect on students’ satisfaction.**

Table (6) shows how regression analysis has been used to test the effect of the clinic’s temperature on students’ satisfaction. Results indicated that the magnitude of relationship is (0.569); the value of $R^2$ is (32.4%) which reflects the amount of variance that clinic’s temperature contributes to students’ satisfaction. This relationship is considered to be significant as the value of significance level is (0.00) which is less than 0.05. The $t$ value indicates the presence of a relationship between clinic’s temperature of patients and students’ satisfaction.

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<tr>
<td>Clinic cleanliness</td>
<td>0.684</td>
<td>0.468</td>
<td>51.10</td>
<td>0.00</td>
<td>7.14</td>
<td>0.00</td>
<td>Accept</td>
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<tr>
<td>Clinic’s temperature</td>
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</tr>
<tr>
<td>Clinic’s temperature</td>
<td>0.569</td>
<td>0.324</td>
<td>27.81</td>
<td>0.00</td>
<td>5.27</td>
<td>0.00</td>
<td>Accept</td>
</tr>
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</table>
With this result, analysis confirms that there is a significant effect of clinic’s temperature on students’ satisfaction. This result has been found by many scholars such as Bratton and Short (2001). Thus, it is not just health clinics’ temperature that affects students’ and patients’ satisfaction; temperature tolerance has also been targeted and found important while patients’ satisfaction with healthcare is a combination of need, expectation and the experience of care (Heinrich, 2008).

6.2. 7. The Seventh Hypothesis:
H7: Doctors’ experience has a direct effect on students’ satisfaction.

Table (7) shows how regression analysis has been used to test the effect of the doctors’ experience on students’ satisfaction. The results indicate that the magnitude of relationship is (0.557); the value of $R^2$ is (31.1%) which reflects the amount of variance that the doctors’ experience element contributes to students’ satisfaction. This relationship is considered to be significant as the value of significance level is (0.00) which is less than 0.05. The t value indicates the presence of a relationship between doctors’ experience and students’ satisfaction.

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<th>t</th>
<th>Sig(t)</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors’ experience</td>
<td>0.557</td>
<td>0.311</td>
<td>26.15</td>
<td>0.00</td>
<td>5.11</td>
<td>0.00</td>
<td>Accept</td>
</tr>
</tbody>
</table>

With this result, analysis confirms that there is a significant effect of doctors’ experience on students’ satisfaction. Both doctors’ and patients’ experience are found to be important for a mutually satisfactory medical relationship; moreover having experience of medical problems plays an essential role in patient satisfaction and trust (Keating et al., 2002). Additionally, not only is doctors’ and consultants’ experience important to patients but doctors’ consulting style was also found to be essential, and doctors should follow the best style that satisfies patients (Savage and Armstrong, 1990).

7. Study main results, recommendations, and Limitations

The study found that many healthcare medical factors affect students’ satisfaction, including the following: service location, service price, time required to receive the service, clinic cleanliness and temperature, employees’ treatment of patients, and doctors’ experience.

Even so, to satisfy students’ needs and provide a better healthcare service, the educational institutions need to work on shortening the time spent waiting to see a doctor by hiring extra doctors and additional employees to make the process of reserving appointments easier and more accessible. The provision of suitable services is achieved mainly through human elements which enhance the interaction skills and help to treat each student properly as an individual case. Building additional clinics in other locations may help to reduce the amount of time spent by the students waiting in queues, and may give them better medical services. Some students highlighted that the medical centre was not working as they had expected in terms of helping them and providing a variety of medical consultations.

The study has been conducted mainly within one of the Jordanian Universities, which has constrained the possibility of questioning other students in Jordan’s other governmental and private universities of which there are 27. This study has used the convenience sampling method which in some cases does not permit the study findings to be generalized. Therefore, using more accurate sampling methods such as stratified random sampling to obtain a greater variety of respondents from more than one university is important and may allow the findings to be generalized.

Furthermore, while this study has been designed to investigate students’ satisfaction with universities’ healthcare services, future research should add more value by seeking the views of both the universities’ administrators and healthcare clinics workers to give a better understanding of satisfaction in this setting.
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عوامل التنبؤ برضا الطلاب للخدمات الطبية المقدمة من مراكز الخدمات الطبية الجامعية: دراسة حالة

في قطاع التعليم العالي الأردني

Muhammad Alshurideh

ملخص

في هذه الورقة البحثية - تم بحث العوامل المؤثرة في رضا المستفيدين للخدمات المقدمة من المراكز الطبية في الأردن. لقد تم بحث العوامل المؤثرة في رضا الطلاب لجودة الخدمات الطبية في نطاق محدود، وباعتبارها جزءًا من جودة الخدمات التعليمية على نطاق أوسع، مثل أسعار الخدمات الطبية، خبرات الأطباء، مدى ملاءمة المراكز الطبية، نظافة ودرجات الحرارة للوحدات الطبية، وكيفية تعامل موظفي الوحدات الطبية للمراجعين والمريضين.

أجريت الدراسة على 500 طالب، كانت نتائج الاستجابة حوالي 60%. تم استخدام مقياس التوزيع التجريبي (Likert) لجمع عناصر الإجابة على الأسئلة الخاصة بالعوامل الدموية لاختبار مدى رضا الطلاب للخدمات الطبية المقدمة من مراكز الخدمات الطبية الجامعية، استخدم طريقة الاستناد المغلقة لاختيار الفرضيات.

بينت الدراسة أن الطلاب راضون عن كل من: موقع مراكز الخدمات الطبية، خبرات الأطباء، جودة الخدمات الطبية، ودرجات الحرارة للوحدات الطبية، وكيفية تعامل موظفي الوحدات الطبية مع المراجعين. أما وقت الانتظار فيرتفع من وقت الانتظار للحصول على الخدمة الطبية، بالإضافة إلى تعرض بعض القضايا في هذه الورقة البحثية من حيث طريقة تطوير وعرض وفحص الفرضيات ومناقشة النتائج مزودة بمجموعة من التوصيات المناسبة للدراسات المستقبلية.

الكلمات المفتاحية: التعليم العالي، خدمات المراكز الطبية الطبية، رضا الطلاب، المملكة الأردنية الهاشمية.

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