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**Al-Quds University**

**School of Public Health**



**Patient Satisfaction with primary dental services  
provided by Ministry of Health in West Bank - Palestine**

**Ahmad Fathi Ahmad Odahtallah**

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**Patient Satisfaction with primary dental services provided by  
Ministry of Health in West Bank - Palestine**

**Prepared by:**

**Ahmad Fathi Ahmad Odahtallah**

**B.Sc.: Dental Surgery October 6 University- Egypt**

**Supervisor: Asma Imam, PhD**

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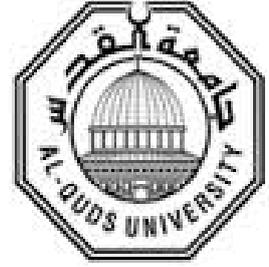
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**Thesis Approval**

**Patient Satisfaction with primary dental services provided by Ministry  
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**Prepared by: Ahmad Fathi Ahmad Odatallah.**

**Student ID No: 21510033**

**Supervisors: Dr. Asma Imam.**

Master thesis submission and acceptance date: 16/12/2017

The names and signatures of examining committee members:

1. Head of committee: Dr. Asma Imam

Signature:

2. Internal Examiner: Dr. Motasem Hamdan

Signature:

3. External Examiner: Dr. Ahmad Rahal

Signature:

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## **DEDICATION**

To the pure spirit of my father, to my beloved mother, to my dear wife, Majdoleen, to my sons, Fathi, Ezz and Moataz, to my daughter, jana, to my brother, Dr.Ramzi, to my sisters, Lubna, Mervat, Safaa, Dalal and Reham, to all my family, to my friends, Riyad Faraj, Hani Alfarahen, Ghassan Zawahra, Hassan Alfarahen, Diyaa Alzoghary, Zaki Ayes, Khalil Abu-Sbitan, Dr.Emad Shehada, Dr.Saber Alaloul, Dr.Ziad Braijeia, Majd Obeidallah, Mohamed Zawahra, Ali Faraj and Sameha who offered me spiritual and emotional support.

**Ahmad Fathi Ahmad Odatallah**

## **Declaration**

I certify that this thesis submitted for the degree of masters in health policy and management is the result of my own research, except where otherwise acknowledged, and this thesis (or any part of the same) has not been submitted for a higher degree to any other university or institution.

**Signed:**



**Ahmad Fathi Ahmad Odahtallah**

**Date:16/12/2017**

## **Acknowledgement**

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## **Abstract**

### **Background**

Patient satisfaction is an attitude of person's general orientation towards a total experience of health care. Satisfaction comprises both cognitive and emotional facets and relates to previous experience, expectation and social networks (Keegan *et al*, 2002). One of the important goals of any healthcare system is to deliver the best quality healthcare services attainable, and to continuously address the needs of its patients. Patients' satisfaction is one helpful indicator of the quality of services provided.

### **Aim**

The aim of this study was to assess the level of patient satisfaction with dental care services in Ministry of Health (MoH) clinics in the West Bank, and the factors influencing patient satisfaction for those services were determined for a better understanding of those variables allowing for their enhancement and development to ultimately improve the satisfaction of patients of the quality of services provided by MoH dental clinics.

### **Methodology**

The study was conducted during the period from July to October 2017. The design of this study was a quantitative, descriptive, and cross-sectional. A questionnaire was developed from earlier studies to meet the study objectives and conceptual framework. The questionnaire was originally made by Dr. Sowole in 2007 (Sowole, Sote & Folayan, 2007) to measure patient's satisfaction with the quality of the provided dental services in MoH. The convenient stratified sample included 379 patients that are treated in the MoH dental clinics in the West Bank were selected by including patients between 18 -60 years old. These age groups formed the majority of the adult population visiting MoH dental clinics. Patients who couldn't read and write were excluded from the study sample. Therefore, 296 of whom participated in the study and personally completed the questionnaire thereby achieving a response rate of 78.4%. The validity of the questionnaire was tested and the total instrument reliability test (Cronbach's Alpha) gave a score of 0.871. The questionnaire considered five domains of patients' satisfaction which included: quality, access, pain management, affordability and general satisfaction.

## **Result**

The results showed the main domain scores ranged between 65.2% to 75.8% with a moderate level of overall satisfaction of 69.4% across all domains. General satisfaction rates were reasonably high (75.8%) and the lowest level of satisfaction was found with accessibility (65.2%). Moderate level of satisfaction was found with quality (71.8%), pain management (72%) and affordability (73.8%). The study revealed that there was a statistical significant difference between service quality domain and the patient's occupation, such that patients who were civil servants or pensioner were more satisfied with the dental services provided. In contrast, there were no significant differences in overall satisfaction of the domains in regard to age, gender, marital status, level of education and location of residence. In addition, the study revealed that there was a statistical significant difference between patient satisfaction and waiting time, number of visit, facilities and technology.

## **Conclusion**

The findings indicate that overall satisfaction is moderate level (69.4%). Therefore, MoH needs to enhance the quality of MoH dental clinics services.

# مدى رضا المرضى عن الخدمات العلاجية المقدمة في عيادات الأسنان بوزارة الصحة الفلسطينية بالضفة الغربية

اسم الطالب: احمد فتحي احمد عودة

اسم المشرف: د.اسماء الامام

## ملخص الدراسة

رضا المرضى هو توجه الشخص العام حول تجربة كلية من الرعاية الصحية ويشمل المظاهر الإدراكية والعاطفية ويتعلق بالتجارب السابقة والتوقعات والشبكات الاجتماعية.

. (Keegan *et al*, 2002)

إن أحد الأهداف الهامة لأي نظام صحي هو تقديم خدمات صحية عالية الجودة والإستجابة لإحتياجات متلقي الخدمة. ويعتبر رضا المرضى هو أحد المؤشرات المساعدة في نوعية وجودة الخدمات المقدمة.

## اهداف الدراسة

هدف الدراسة هو تقييم مستوى رضا المرضى عن الخدمات المقدمة لهم في عيادات الأسنان في وزارة الصحة الفلسطينية بالضفة الغربية والعوامل المؤثرة في رضا المرضى عن تلك الخدمات وذلك من اجل توفير المعلومات التي يمكن ان تساهم في التعرف على أهم الجوانب التي تحتاج الى تحسين وتطوير للإرتقاء بنوعية وجودة الخدمات التي تقدمها عيادات الاسنان في وزارة الصحة الفلسطينية.

## المنهجية

صممت هذه الدراسة كدراسة وصفية نفذت في عيادات الأسنان في وزارة الصحة الفلسطينية خلال الفترة بين تموز وتشيرين الاول 2017 .

تم تصميم إستبانته من دراسة سابقة لتتلائم مع اهداف الدراسة لقياس مدى رضا المرضى عن جودة خدمات علاج الأسنان المقدمة في وزارة الصحة الفلسطينية، العينة كانت توافقية طبقية مكونة من 379 مريض تم إختيار المرضى بين عمر 18-60 عاما وهي النسبة الاكبر التي تزور عيادات

الاسنان في وزارة الصحة الفلسطينية وتم استثناء من لا يستطيعون القراءة والكتابة. لذلك شارك منهم فعليا 297 مريضا عبأوا الإستمارات بأنفسهم وكانت نسبة الإستجابة 78.4%. نسبة الثبات بلغت 0.871 حسب مقياس كرونباخ الفا.

واشتملت الإستبانة على 5 أبعاد للرضى هي : الجودة، سهولة الوصول، السيطرة على الألم، القدرة المالية والرضا العام.

### النتائج

أظهرت نتائج هذه الدراسة رضا عام متوسط عن الخدمات بلغ 69.4% حيث تراوح ما بين 65.2% الى 75.8% كان أعلاها الرضا العام بنسبة 75.8% وأدناها سهولة الوصول للخدمات 65.4%. وكان رضا متوسط عن الجودة بلغ ( 71.8%)، والسيطرة على الألم بلغ ( 72%) والقدرة المالية بلغ (73.8%).

وأوضحت النتائج انه توجد علاقة ذات دلالة احصائية بين جودة الخدمات المقدمة للمرضى وطبيعة العمل، فمثلا الذي يعمل بالقطاع الحكومي او المتقاعدين هم أكثر رضا عن الخدمات المقدمة. على العكس لا يوجد علاقة ذات دلالة إحصائية في مستوى الرضا العام عن الخدمات بين المرضى من حيث العمر، الجنس، الحالة الاجتماعية، مستوى التعليم ومكان الإقامة.

كما اوضحت الدراسة وجود دلالة احصائية بين معدل الرضا وعدد الزيارات، فترة الانتظار، استمرارية العلاج، الامكانيات والتكنولوجيا المتوفرة.

### الخلاصة

تشير النتائج ان معدل الرضى العام متوسط ونسبته (69.4%). لذلك وزارة الصحة الفلسطينية بحاجة لتحسين الجودة في عيادات الاسنان في الوزارة.

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## **Chapter One:**

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### **Introduction:**

#### **1.1 Introduction**

The world's economies have become service-oriented by large. The chief issue for any business is based upon the manner in which the quality of services is provided. According to Smith and Swinehart (2001), quality is defined as "perceived satisfaction" (p.21), therefore, the majority of institutions are promoting their best practices to meet the patient's needs.

Patient satisfaction has become a critical indicator of the quality of dental services (Shrestha *et al*, 2008; Butters and Willis, 2000). On other hand, research by Mason (1995) indicates that most people are willing to have a say about their own health and the best health services represented by the health institute.

Decision makers are continuously working to improve the healthcare system for the sole aim of having satisfied patients. As a point of fact, there are various dynamic elements that affect patient satisfaction which could be used as indicators to measure the quality of healthcare (Shea, Guerra, and Weine, (2008); Andaleeb *et al*, 2007). In addition, patients' suggestions can help to further explore problems in healthcare influencing patient satisfaction, which will help to figure out a way for correction of those obstacles and for improvement (Wong and Fielding, 2008).

The definition of patient satisfaction varies according to the type of study and the perception of the researchers. Jenkinson *et al.*, (2002) define patient satisfaction as attitudes of patient to care or aspects of care. While Mohan and Kumar (2011) define patient satisfaction as “patients’ emotions, feelings and their perception of delivered healthcare services” (p.15). On the other hand, other authors like Syed *et al.* (2012), considers patient satisfaction as “the degree of congruence’s between patient expectations of ideal care and their perceptions of the received care” (p.14).

According to Berkowitz (2016), there is a relation between a patient’s experience and his/her satisfaction. Patient’s experience is patient expectation and approval of the provided healthcare services. While satisfied patients depend on their expectation towards the provided healthcare services, satisfaction may not occur with all the provided services they receive. Kupfer and Bonds (2012) find that the quality of healthcare services is high when the received care exceeds expectations. In addition, patient’s perception of quality is influenced by environmental and cultural factors, and other factors including pain. Accordingly, patient satisfaction varies according to the patient’s perception of quality. According to Ghose and Adhish (2011), patient satisfaction is the most important indicator reflecting the quality of services. Satisfied patients are responsible for reflecting the good image of the medical organization and therefore, it is necessary for hospital management to consider patient satisfaction.

Johansson,Oleni and Fridlund ( 2002) argue that:

“Patient satisfaction is an important indicator of quality care because(1) It brings a consumer viewpoint policy of health care while also safeguarding patients’ rights and taking their views into account, (2) It is known that a satisfied patient is more likely to comply with treatment and advice he or she receives from health care professionals, (3) There is a high likelihood of a satisfied patient returning to the same health facility when in need of health care, (4) A satisfied patient is more willing to recommend to the hospital that provided his or her care to others in need of health care” (p. 338).

According to Radad (2016), patient satisfaction is important to the improvement of healthcare systems. To exemplify, the satisfaction of patients with a healthcare

organization is affected by whether the facility contains enough room, whether it is clean and comfortable, and whether other attributes of the physical environment are equipped.

When it comes to dental clinics, several studies have shown that many factors reduce patient satisfaction including low confidence in the dentist, poor communication between patient and dentist, and dissatisfaction with the quality and fees. In addition, a decline in patient satisfaction has been associated with poor compliance with dental instructions, low utilization of services and finally to terminate treatment (Collett, 1969, Schouten, 2004; Okullo, 2004).

According to Patel (2014), patient's preferences, physical comfort, communication, information and education and emotional support results in a high level of quality of treatment and patient satisfaction.

Patient satisfaction is a multi-dimensional concept including many aspects of healthcare (Korda , 2012). A review of studies about patient satisfaction of dental clinics revealed that there are five practical factors that affect patient satisfaction, technical competence, interpersonal factors, cost, facilities and convenience (Liz Gill and Lesley, 2009). Therefore, meeting the needs and expectations of patients for dental care will affect patients' behaviors with regards to better compliance, commitment to appointments and finally reducing pain and anxiety (Butters and Willis, 2000).

Other studies have indicated that dissatisfaction with the quality and fees have been associated with poor compliance with treatment instruction, low utilization, or termination of treatment (Kieft, Brouwer, & Diana, 2014).

According to Chaaya *et al.* (2003), patient satisfaction depends on several determinants including, but are not limited to, the socio-demographic background of the patient, communication and information, patient expectations, medical and technical skills, organizational and physical environment, communication, participation, involvement and interpersonal relationships skills.

A study conducted by Lee *et al.* (2013) in Taiwan analyzed the quality of dental services provided to the public by interns. Statistical associations are examined by using randomly

selected patients from a dental department in a medical center located in southern Taiwan and used a structured questionnaire and response scales (Likert) to investigate the emphasis level and patient satisfaction with the dental treatment provided by interns for 52 valid questionnaire, the results showed that there is statistically significant differences according to the type of treatment received, gender, marital status, educational level attained, and household income ( $P < 0.05$ ).

However, according to Matte, Scheutz, Simon and Lembarti (2006), little information is known about patient composition, equity, equality of access, efficiency and patient satisfaction. Therefore, it is very important to understand and collect information about these components. A study on patient satisfaction with a population attending public dental services could test the quality of services and could be used as a guideline on service improvement.

Several studies worldwide have investigated patient satisfaction following dental treatment; however, there are scarce studies about patient satisfaction with primary dental care provided by the Ministry of Health (MoH) dental clinics in Palestine.

## **1.2 Study Problem**

During the last decade, there has been an evident increased attention to the quality of healthcare and the need for improvement in healthcare centers. Several studies of patient satisfaction with dental clinics indicate that patient satisfaction is a basic part of measuring quality of care, and that it affects patients' compliance with dental instruction, utilization of services and finally continuity of dental treatment.

According to the MoH report of 2014, 42317 patients were treated in MoH dental clinics in the West Bank. However, there is no study according to our knowledge done in Palestine to assess the level of patient satisfaction with dental care and the factors influencing it in the MoH dental clinics in the West Bank.

This study can be used as a baseline study for future research and planning to include an assessment of patient satisfaction in MoH policies and quality programs.

### **1.3 Study justification**

Patient satisfaction is becoming a chief indicator of the quality of healthcare and the success of any healthcare facility which is the reason most healthcare institutes work to satisfy their patients.

Studies of Schouten *et al.* (2004) and Okullo *et al.* (2004) have shown that there is an inverse relationship between patient satisfaction with dental clinics and factors such as dissatisfaction with quality and fees, low confidence in the dentist and poor communication between dentist and patient, which lead to poor compliance with dental recommendation, low usage of dental services and finally to terminate the treatment.

According to the Dental Health Foundation (2002), studies revealed that oral health is essential to general health and well-being. Healthy mouths means the ability to masticate the food and better nutrition of the physical body; healthy oral and dental health means better esthetic that will support the social interaction and improve feelings of well-being and self-esteem. In addition, periodontal disease has been associated with systematic disease through the bacteria that penetrate orally to other part of body. So, oral conditions have an influence on overall health.

In Palestine, the evaluation of patient satisfaction is neglected especially in MoH dental clinics, therefore, annual reports on patient satisfaction and the identification of the factors affecting patient satisfaction in dental clinics may contribute to the improvement of the quality of services in MoH dental clinics

### **1.4 Aim of the Study**

The aim of this study is to assess the level of patient satisfaction with dental care services in the MoH clinics in the West Bank.

### **1.5 Objectives**

- To assess the level of patient satisfaction of dental care services provided at MoH clinics.
- To identify the relationship between patient satisfaction and personal and demographic characteristics of the respondents including age, gender, marital status, occupation and level of education.

-To determine the main components influencing overall patient satisfaction with MoH dental services.

## **1.6 Hypothesis**

1- There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH in the West Bank of Palestine with respect to gender, age, marital status, residence, occupation and level of education.

2- There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH in the West Bank of Palestine with service related variables such as time of attending the clinic, waiting time, number of visit, facilities and technology.

## **Chapter Two**

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### **Literature Review**

#### **2.1 Introduction**

Review of literature serves a basic function in the process of research. Literature review helps to clear the study foundation and can also help to find new research ideas. Literature reveals a significant gap related to health care provider with Patients satisfaction. It is a way to explore the study problem and help in selecting methodology, developing tool and also data analysis and discussion of the finding. This chapter includes definition of patient satisfaction, components of patient satisfaction, factors affecting the working condition and demographic factor and conclusion.

#### **2.2 Definition:**

Syed *et al.* (2012) see patient satisfaction as “the degree of congruence’s between patient expectations of ideal care and their perceptions of the received care” (p.14).

## **2.3 Components of patient satisfaction:**

There are several components of patient satisfaction including quality, accessibility, pain, affordability and general satisfaction.

### **2.3.1 Quality:**

Patient satisfaction about the quality of provided healthcare services is currently one important subject matter discussed on a global level. Most of the healthcare institutes are doing their best to provide good quality care.

According to Juran (2003), quality is defined as “fitness of use” (p338). The service quality may be dependent on the degree of satisfaction of customers receiving the service.

Patient satisfaction is used as an indicator to manage and monitor the quality of services provided by hospitals reflecting the overall level of quality of healthcare institutes. Accordingly, measurement of satisfaction is a necessary instrument for administration, research and planning (Assefa and Mosse 2011).

Previous patient experience such as patient involvement and participation in addition to individualized care and patient follow-up affect patient satisfaction in healthcare institutes (Lin, Xirasagar and Laditka, 2004). The perception of quality has a significant impact on the patient to return to a particular healthcare facility.

The work of Patel (2014) reveals an association between patient satisfaction and patient demands, physical comfort, respecting the patient’s preferences, emotional support, communication, information and education achieving an enhancement in the quality of provided services and patient satisfaction.

It is somewhat difficult to define the quality of healthcare services when compared to other types of services as quality is the patient himself and the quality of his life being examined (Eiriz and Figueiredo, 2005). The main obstacle is the lack of a valid and reliable instrument to evaluate the quality because it is based on the patient’s attitude and

perception. Yet, it is still necessary to raise awareness regarding the concept of quality because it is interlinked with improving the healthcare services which will, in turn, improve patient satisfaction increasing the competitiveness of the organization (Tewarie, 2008).

After reviewing the available literature on healthcare quality, service quality appears to consist of technical and functional quality. Technical quality refers to medical care quality and nursing care received; it has the technical accuracy of the diagnosis and compliance with professional specifications (Lam, 1997). In addition, it includes staff efficiency such as the medical and clinical skills when performing a routine job. Functional quality, on the other hand, is the process of provided care; it is the way in which the services delivered to customers. According to Lam (1997), patients depend on their evaluation of healthcare service quality of interpersonal and environmental factors, which is considered less important by the health professionals.

The relationship between perceived quality of healthcare services and patient satisfaction have been studied by many researchers (Badri *et al.* 2009; Scotti *et al.*, 2007; Sohail, 2003; and Phillips, 1996) who found a positive relation between the previous mentioned variables. The work conducted by Badri *et al.* (2009) analyzed the relationship between quality of healthcare services and patient satisfaction using structural equation modeling among patients at United Arab Emirates public hospitals and investigated a positive relation between patient satisfaction and perceived service quality. In fact, there are numerous empirical studies supporting the presence of a positive relationship between the perceived quality of service and patient satisfaction (Alrubaiee & Alkaa'ida, 2011; Dagger *et al.*, 2007; Scotti, Harmon, & Behson, 2007; Choi *et al.*, 2005; Merkourisa, Papathanassogloub, & Lemonidou 2004). Thus, there is a strong correlation between perceived service quality and patient satisfaction in healthcare service in general.

The level of satisfaction varies from product/service to another and from person to another. Satisfaction depends on both psychological and physical variables which are related to satisfaction behaviors such as recommend rate. According to Donabedian (1988), patient satisfaction may be considered one of the required outcomes of care and that patient satisfaction information should be as essential as quality assessments. Conversely, there are several factors that obstruct the achievement of patient satisfaction. A study of Argentero, Dell'Olivo, and Ferreti (2008) done in Italy showed high levels of exhaustion

amongst nephrology nurses and physicians which resulted in poor patient satisfaction with regards to the offered quality of services. Moreover, the study suggested that working with professionalism and skills throughout providing customer care leads to higher patient care quality achievement.

Research shows that high quality services keeps existing patients, it attracts new ones, reduces cost, advertizes good image and increases the institute's profit (Berry *et al.*, 1989; Reichheld and Sasser, 1990; Rust and Zahorik, 1993; Cronin *et al.*, 2000; Kang and James, 2004; Yoon and Suh, 2004). Good quality services also enhance the potentiality to sustainable competitive advantage (Lim and Tang, 2000; Kuei, 1998). As a result, authors have been studying service quality and its relationship with the healthcare organization's outcome. They accepted that higher degrees of quality of services lead to increased customer satisfaction level (Gotlieb *et al.*, 1994; Kang and James, 2004; Oliver, 1997; Pollack, 2008).

Patients' perception of the quality of provided care is believed to positively influence patient satisfaction, which in turn results in positively influencing patients' decision in selecting a specific healthcare provider (Andaleeb, 2001; Taylor, 1994). Satisfied customers express their content and approval of the good image of a healthcare institute, and show favorable behavioral intentions which lead to long-term success.

A study conducted by Dansereau *et al.* (2015) in Zambia analyzed the relation between patient satisfaction and the perceived quality of care. Statistical associations are examined by using random-effect ordered logistic regression models, fixing for socio-economic, demographic, visit and facility characteristics for 2789 patients, the results were as follows:

- 1- Rate of satisfaction was 7.3 for HIV services and 6.9 on a 10-point scale for non-HIV services. Better health personnel perception was due to higher odds of overall satisfaction with non-HIV (OR=3.53, 95% CI 2.34 to 5.33) and HIV (OR=11.00, 95% CI 3.97 to 30.51) visits.
- 2- For non-HIV patients, the satisfaction odds were higher in hospitals compared with health centers/posts (OR 1.78; 95% CI 1.27 to 2.48) and lower at public centers (OR=0.41, 95% CI=0.27 to 0.64).

To conclude, care quality perception results in patient satisfaction with received health service in Zambia.

Evaluation of the patient satisfaction level may signal the healthcare institute to improve their provided services as well as maintaining the quality of provided services (Strasser *et al.*, 1995; Pakdil & Harwood, 2005; Naidu, A., 2009). In addition, patients' expectations and priorities vary according to the patient and his/her country. It differs according to the cultural background and the healthcare system (Eiriz and Figueiredo, 2005). Therefore, a multidimensional research instrument (i.e. questionnaire or measurement scale) designed to measure service quality by capturing respondents' expectations and perceptions along the five dimensions of service quality (SERVQUAL) Scales and its factors that may be adequate in Western cultures may be inadequate in other cultures (Malhotra *et al.*, 1996; Smith and Reynolds, 2001; Ueltschy and Krampf, 2001; Ueltschy *et al.*, 2002). So, SERVQUAL as a measurement of service quality requires updating validation in different cultural backgrounds.

Oliver (1997) explains that quality of services can be evaluated by comparing customer's expectations of the received service and their perceptions of the provided care. To illustrate, if the perception of services were greater than the customer's expectations, his/her evaluation of service will be excellent. If the expectations equal the perception of the service, it is evaluated as good; and if the perception of services is less than the customer's expectations, the service will be considered bad. Gibson (2005) states that satisfied patients often become loyal customers to the healthcare institute and spread a positive word of mouth about that institute. As a result, understanding the factors affecting patient satisfaction makes it easier to get better quality of service and to be ready to meet the demands of the health market.

Gowan *et al.* (2001) explains that representing healthcare services in the public sector is harder than the private sector because it is difficult to achieve customer's priorities and needs not to mention the scarce resources problem. The empirical study conducted by Lei and Jolibert (2012) in China investigates the relation between quality, loyalty and patient satisfaction in the healthcare system for six public Chinese hospitals, and two studies were performed to fill 630 questionnaires. Study 1 tested the research instruments, and Study 2

tested the three models. Confirmatory factor analysis was used to assess the validity of the results. A structural equation model (SEM) was used to specify the variation on each construct. The results were as follows:

- 1- Satisfaction and quality were clear concepts, and the viewpoint that “satisfaction mediates quality and loyalty” was the most suitable construct in the Chinese healthcare environment.
- 2- Using quality improvement strategy to keep patient loyalty depends on the patient satisfaction level.

Patient satisfaction is an important aspect of the quality of care with dental care and will influence the future utilization of the service; it is, therefore, an essential element quality of care assessment (Hashim, 2005).

According to study by Matee, Simon, & Lembariti, (2006) at five public dental clinics randomly selected from a list of all the nine public dental clinics in Dar es Salaam, A cross sectional study were conducted. The Findings indicate a moderate level of patient satisfaction with dental care offered in public dental clinics in Dar es Salaam. Areas identified as needing improvement to improve patient satisfaction included; technical quality of care, interpersonal aspects and communication.

A study conducted by Dewi, Sudjana, Oesman, (2011) at dental polyclinic located in Government Hospital, West Java, Indonesia. A total of 90 questionnaires were completed. The results were concluding that priority should be given to dentist's communication and dental assistant's knowledge toward patient's needs to enhance the service quality and patient satisfaction.

A study conducted by Habib et.al (2015) at King Saud University in Saudi Arabia to evaluate patient satisfaction following comprehensive dental treatment provided by final year dental students at college of dentistry. Cross-sectional was collected from patients using a self-answered questionnaire. The results were concluding the patients treated by the dental students at college of dentistry were highly satisfied with their treatment.

According to Habib *et al.* (2014), the main focus of dental treatment should be on how to gain the satisfaction of patients and to reach high quality and success of dental services.

Different issues influencing dental patient satisfaction includes the level of patient positive feeling on general satisfaction, technical quality, communication, financial aspects, interpersonal manner, and time to spend on all providers in health institute (Kumari, 2009; Abramowitz, 1987).

In addition, study of Alhamdani (2014) indicates that quality of health care services in private dental clinics and dental schools are mostly better than those in the public sector.

### **2.3.2 Accessibility:**

Accessibility to services includes physical facilities, the times–required to receive the services, the working hours, and service processes.

According to Vadhana, (2012) accessibility also includes the physician-visiting structure, first-line reception, the availability of different physicians, the personal house visitation, and the follow-up visits. There are three dimensions to the accessibility of services: the physical dimension (waiting time and cost), information (informed choice regarding the type, source and quality of services) and economic accessibility (Osmani, 2003).

The study of Win and Panza, (2010) found that good accessibility was associated with high satisfaction while poor accessibility was associated with low satisfaction. Many other factors affect the accessibility of services such as the health staff's availability, especially during the evening hours, good communication skills, reassuring the patients, and raising awareness. These factors are considered important factors to measure the patient satisfaction (Aday, 1983).

A recent study done in India on patient satisfaction with the hospitals investigated the patient satisfaction degree on health care services. The findings of the study showed that the availability of services is 97% for seating arrangements, 95% for cleanliness, 93% for timing, 83% for the services provided by other staff and 85% for the availability of sufficient doctors in the department of OPD (Joshi, Sochaliya, Purani, & Kartha, 2013).

Another study done in the Outpatient Department of Chulalongkorn Hospital on patient satisfaction indicated that 83% of the clients have positive feelings towards the health care

services. However, the rest complained about the long time required to receive services (Vadhana, 2012).

In addition, a study in Maldives found that patient satisfaction increased in terms of the delivered services. However, the results showed low percentages for the following: 45.8% for courtesy, 44.2% for the quality of care, 41.8% for the physical environment, 24.7% for convenience and 23.5% for the out-of-pocket cost (Ibrahim, 2008).

A study by Al kariri (2010) at the Outpatients Department of Al Shifa Hospital in Palestine was done to measure patient satisfaction. 450 questionnaires were distributed with a response rate of (90%) by the patients. This study considered measuring 5 dimensions of patient satisfaction: access to care, patients' expectations, physical environment, waiting time and information and interaction. The overall percentage of patients' satisfaction was 63.9%. The patients' expectation dimension reported the highest satisfaction levels (68.1%), while the waiting time dimension reported the lowest satisfaction levels (58.5%). The study found that the overall satisfaction of females, low educated patients with low income, seniors and patients with chronic diseases was considerably high. By contrast, the following factors did not report statistically significant difference in the level of satisfaction: marital status, number of visits, place of residency, presence of disability, recipient outpatient clinic, and place. The study concluded that decreasing the waiting time of the outpatient clinic, improving the physical environment and the communication and interaction between the health care workers and patients are the most important factors that can improve the patients' satisfaction level (Al Kariri, 2010).

According to Collett (1969), the most relevant aspects when selecting a dentist are accessibility and convenience, and they mostly prefer dental clinics that are located near their home or are easily accessible by public transportation.

According to Nelson and colleagues (2005), decreasing the waiting time and noise pollution (e.g., natural lighting, availability of new units, music and natural views in front of organization); have a direct influence on satisfying the patient.

Noise interferes with good communication, affects concentration, and causes stress and fatigue (Belojevic, Jakovljevic, and Slepcevic, 2003). Noise can also negatively affect

healing, the quality of sleep, and it can reduce overall patient satisfaction (Van de Glind, de Roode, Goossensen, 2007).

Another study found that the hospital facilities such as single-bed rooms can improve patient safety and ensure a healthy environment for the patient (Josef, 2006). Patients and their families tend to be more satisfied with single-bed rooms since they allow for privacy and a comfortable environment (Bayo, Garcia, Garcia, 1995). In addition, using natural light, color, and sound to control patient stress can improve the patient satisfaction (Josef, 2007).

The accessibility and continuity of care are important aspects for good general care (Bower, Roland, Campbell, Mead 2003), and for the improvement of the quality of services (Grol, 2007). In addition, there is a positive relation between patient satisfaction, continuity and accessibility of care, and outcomes of medical treatment (Thompson, Parahoo, and Farrell 2003).

A study by Al Sharif (2008) was done to analyze the factors that affect patient satisfaction in Nablus hospital, Palestine, such as room services, technical quality interpersonal skills of health care providers, availability and accessibility of services. 365 questionnaires were filled. The study found that the patients treated in nongovernmental hospitals were more satisfied compared to patients in governmental hospitals. Moreover, the study found that older patients were more satisfied than the younger ones. Similarly, females were more satisfied than males. In addition, patients with high income were more satisfied than patient with low income. Also, healthier patients were more satisfied than sicker patients. However, patients with long waiting time were less satisfied (Al Sharif, 2008).

According to Lee (2000), technical skills of dentists and the dental capabilities are the most highly valued factors, followed by the manner of dentists during treatment.

Abu Harbeid (2004) studied the women's satisfaction level with antenatal care provided by MoH and UNRWA in GS. 504 random samples were selected at primary health care with a response rate of 92.8%. The results revealed that the level of satisfaction represented by workers competence was 83%, interpersonal relations was 81%, waiting time was 86%, service provider consultation was 62%, drug availability was 79.5%, accessibility was 89.5%, infrastructure was 82%, general satisfaction was 89.5% and overall satisfaction was

79.3%. The study revealed that there are some variables influencing the patient satisfaction including age, employment status, educational level, service provider consultation, health provider manners, waiting time and the type of health sector. The study concluded that the waiting time and the health education have great impact on the satisfaction level (Abu Harbeid, 2004).

A study conducted by Mahrous (2012) at Taiba University in Saudi Arabia to evaluate patient satisfaction from dental services provided by the College of Dentistry. A cross sectional analytical observational study was conducted by using a random sampling technique over a three month period. A study were concluding that majority of patients were satisfied with the patient–dentist interaction, technical competency, administrative efficiency.

A study conducted by Nagappan and John (2014) at dental hospital in India to measure patient satisfaction about facilities, services and treatments offered by a dental hospital in India. Self administrated questionnaire was distributed to outpatients reporting to the dental hospital for treatment. A study were concluding that the majority of the patients were satisfied with the facilities, services and treatment received at hospital except for facilities such as water supply and scheduling appointments with patient convenience.

A study conducted by Patil et.al (2016) at a specialized pediatric dental clinic in India to evaluate parent's satisfaction whose children have undergone dental treatment in a specialized pediatric dental clinic. Nineteen-item closed-ended questionnaire was distributed to 40 parents to assess the overall satisfaction of the treatment provided to their children, based on a Likert scale for a period of 1 month. The results were concluding that participants were overall satisfied with the dental treatment provided to their child, the behavior of the dentist, and the overall setup of the clinic. However, efficiency and the services depend much on the ability of the staff to relate in a more humanized manner.

A study by Badner (1992) was done to investigate patient satisfaction with dental care in a municipal hospital. Approximately 60% of the patients were dissatisfied with the long waiting time and unavailability of adequate dental care services. In addition, choosing from dental clinic depends on the accessibility, convenience and affordability. (Habib,

Ramalingam, Al Beladi, and Al Habib, 2014). So providers of health care services should be ready to serve anytime.

Therefore, policymakers worldwide are urged to set a plan to facilitate the access to health care service.

### **2.3.3 Pain Management:**

Pain is defined as “an unpleasant sensory and multidimensional experience associated with actual or potential tissue damage”. Inadequate management of pain may cause psychological and clinical problems that reduce the quality of life (Tse *et al*, 2005; Apfelbaum *et al*, 2003; Walker and Wagner 2003).

According to the American Pain Society (APS) in 1995, controlling pain should be done in the same way as other vital signs, since inappropriate pain management results in negative consequences of the overall body (Mularski *et al*, 2006; Reimer-Kent 2004).

A Study done by Maher (2012), "The universal unpleasantness and complicated nature of pain, especially in the post-operative setting have the potential to negatively impact overall satisfaction if not optimally managed".

In addition, a study at Ajman University by Hashim (2005) evaluated the relation between the patient satisfactions and pain in dental services. The study revealed that a major reason for admission (80.0%) was relief from pain. Another study found a strong positive relation between patient satisfaction and the control of pain. Therefore, hospitals may develop patient satisfaction by developing the pain management concept (Hanna, Fernández, Barrett, Williams and Pronovost , 2012).

A Study by Hanna *et al*. (2012) evaluated the relationship between patients' perceptions of pain control during hospitalization and their overall satisfaction with care. 4349 adult patients who were admitted to surgical unit was over an 18 month period. The study revealed that patient satisfaction was high strongly related to the perception that workers did everything they could to control the pain than with pain actually being well controlled. The odds of a patient being satisfied were 4.86 times higher if pain was controlled and 9.92

times higher if the staff performance was adequate. This study highlights the importance of improving the management of pain in the hospitals to improve the patient satisfaction.

Having good management of pain pre-operatively and post-operatively ensures a good outcome when it comes to the enhancement of patient satisfaction (Cousins, Power & Smith, 2000).

A study of Bergés (2006), for patients with hip or knee replacement approximately 90 days after leave from in-patient medical rehabilitation, aimed to measure the relation between patient satisfaction and pain. 2,507 patients with hip or knee replacement were examined, using information from the information technology health track medical outcome database. The results showed that the average age was 70.2 years, 66.5% were female, and 88.5% were non-Hispanic white. Pain scores were negatively associated with satisfaction with medical rehabilitation after controlling for possible confounding factors. In patients with hip replacement each one-point increase in pain score was associated with a 10% decreased odds ratio (OR) of being satisfied with medical rehabilitation (OR 0.90, 95 % CI: 0.84, 0.96). In patients with knee replacement, each one-point increase in pain scores was associated with a 9% decreased odds ratio (OR 0.91, 95% CI: 0.87, 0.96) of being satisfied with medical rehabilitation. The conclusion of study demonstrated that postoperative pain for these patients is associated with decreased satisfaction. Accordingly, to improve a patient's level of satisfaction, there is a need to have better post-operative pain control.

A study conducted by Tellez and Kaur (2013) at department of Pediatric Dentistry in North Philadelphia to describe different aspects of caregiver satisfaction with pediatric dental treatment provided at a dental school clinic and to explore differences in satisfaction by caregivers' demographics and compliance with their children's appointments. A cross-sectional study was conducted by using a self-administered dental satisfaction questionnaire. Results indicated that almost half of the caregivers reported feeling concerned about pain at the dental office. Those with the lowest levels of education and income reported feeling the most concern about pain at the dental office, as well as sometimes avoiding bringing their child to the dentist because of their fear of pain and not complying with scheduled dental appointments for the child.

According to Pellino and Ward (1998), there is a puzzling relationship between pain and satisfaction using the concept of “perceived control.” They conclude in their study that there is an inverse relationship between the level of satisfaction and the patient perception of pain control.

Donovan (1983) reported that while 75% of patients reported significant pain postoperatively, 86% of patients reported that they were satisfied with their pain relief.

A study conducted by John, Yatim, & Mani, (2011) at dental polyclinics in Malaysia. Descriptive study involved 481 dental outpatients in Kelantan, Malaysia. A modified SERVQUAL 20-item instrument was used to assess patients’ expectations before and perceptions after receiving dental treatment. The results showed that patients visiting for management of dental pain were more satisfied ( $P = .007$ ) than those visiting with appointment.

A study conducted by Sowole (2007) in Nigeria to determine whether patients attending the dental clinic of the Lagos State University Hospital were satisfied with the care they received. A sample of 200 patients who presented consecutively and received treatment at the clinic completed a self-administered questionnaire. The results were concluding that care providers would need to be more sensitive to pain management issues as well as exploring other techniques of pain management that best soothes the patient.

According to Firestein (1976), the patients who were more satisfied with dental care had better compliance, fewer un-attended appointments, less anxiety, pain and perception. Therefore, there is a positive relation between pain management during medical procedure and patient satisfaction. However, this relationship is not entirely consistent. Patients who report high pain intensity score may report that they are satisfied with their overall pain management outcomes and vice versa.

#### **2.3.4 Affordability:**

According to Lim and Tang (2000), after they developed a modified SERVQUAL model, they found that there are six dimensions that are related to patient satisfaction that are namely tangibles, reliability, assurance, responsiveness, empathy, accessibility and affordability. They have put an emphasis on the importance of the affordability of patients in relation with their satisfaction.

A study by Kovai, Rao, and Holden (2012) was conducted in India to evaluate the opinion of patients regarding the determinants of eye care services in eye care clinics. 127 patients of random samples were examined by interviewing those patients to detect their satisfaction with the services quality in eye care services. They used factor analysis to assess the pillars of patients' satisfaction which included availability of vision workers, place and accessibility of patients to vision technician, which indicate 60% of the total level of patient's satisfaction with vision technician. Another finding of this study indicated that patients that had the affordability to pay for service fees had less satisfaction with the delivered care service. The study concluded that improving patients' expectation, suitable transportation and affordability of eye care may improve the patient satisfaction.

The study conducted in Gaza strip (GS) by Al Hindi (2002) to investigate the client's satisfaction with radiology services. The author identified dimensions of satisfaction such as organizational culture, availability, continuity and affordability, communication and interaction, attitude and perception, comfort and privacy, and approach of care.

A study by Ahmad (2009) was conducted to determine the level of satisfaction with women with obstetric care received at Shifa Hospital in Palestine. 425 women were interviewed and filled the questionnaire. The overall level of satisfaction was 61.8%. The study concluded 6 dimensions affecting patient satisfaction, these include: technical competency, availability and responsiveness of services, information and communication, interpersonal manner and physical environment. The dimensions of information and communication and the physical environment reported the lowest scores (49%). Older women, women with low educational levels, housewives, women with unemployed husbands and women with lower household monthly incomes had higher satisfaction levels with statistically significant differences in comparison to others.

Selection of dental clinics is based on accessibility, convenience and affordability. While most dental clinics work to solve the patients dental problems, dental teaching school are preferred comprehensive dental treatments due to their reputation, affordability and professional competence of the clinicians (Lee *et al*, 2013).

Previous studies (Lafont *et al*, 1999; Ierardo *et al*, 2008; Hashim, 2005; Chu *et al*, 2001; Goedhart *et al*, 1996) necessitates the cost reviewing of dental services in private dental clinics to make fees of treatment more affordable to public.

According to Awliya (2003), found that the most cited reason for seeking care in dental clinics under the Colleges of Dentistry is attributed to affordability for getting the service.

A study conducted by Al Johara (2009) in Saudi Arabia to determine factors affecting utilization of dental health services among intermediate female school students in Riyadh. Self-administered questionnaires were distributed among students attending eight public and four private schools. The results were concluding that reasonable fees for dental services and close location of dental clinics to students' homes are encouraging factors for utilization of dental services and patient satisfaction.

#### **2.4 Factors-affecting the working condition and demographic factor: -**

A study by Donabedian (1980) has indicated that factors related to patient satisfaction include structure-related factors such as size of the organization, number of patient, money, equipment and location, and factors influenced by the patient's character and demographics such as age, gender, education, and human resources, and finally, the process that shows how care is delivered to the patient such as ethics, interpersonal management behavior and value of society or patients satisfaction.

A study by Mark, Salyer and Wan (2003), showed that structure was conceptualized by the staff nurse staffing and the environment in which care was received. The patient will demonstrate high satisfaction with working conditions in which nurses have autonomy, are involved in decision-making, and ensure collaborative relationships engagement (Donohue, Piazza, Griffin, Dykes and Fitzpatrick, 2008).

Most problems of performance can be caused by unclear expectations, skills problem, poor motivation and shortages of resource (Hughes *et al*, 2002). According to Shen *et al* (2004), a fair salary, incentives either financial or non-financial, flexibility of working hours, job description development and good working environment, including the relationships to managers and teamwork, have an effect on the staff satisfaction and reflect in turn on patient satisfaction. In addition, the size of the hospital is important because

patients in smaller hospitals report higher degree of satisfaction with their provided services compared to patients treated in larger hospitals

The design of institute with its adequate equipment either fixed or moveable components can have a significant influence on patient and worker performance, safety of workers, patients, and families in order to reflect a significant influence on patient satisfaction (American Institute of Architects, 2001). In addition, smaller hospitals show higher satisfaction levels than larger hospitals (Young, Meterko & Desai, 2000).

Latent conditions such as poorly designed structure, including the technology and equipment location; complex procedures; training problem; shortages or inadequate staff; and unsafe culture can negatively affect patient satisfaction (Reason, 1997). Establishment of better processes and systems, standardization of patient room, improving treatment areas, equipment, and procedures can decrease problem and improve the patient satisfaction (Institute of Medicine.1999).

In addition, patient satisfaction is affected by working conditions like waiting time, facilities, geographic location, number of visit and technology. (Lundstrom, Pugliese, Bartley, Cox, & Guither, 2002).

A study by Mulhall *et al*, (2004) showed that the patient services should be provided with a safe and proper location. In addition, good physical facilities are very necessary in shaping the client and parents' experience.

Another study by Damghi, (2013) indicated that the waiting time was the most common problem of dissatisfaction with patient.

Study in Ramathibodi Hospital showed that long waiting hours was an important factor of decreasing the satisfaction level. It revealed that the client who was highly educated experienced a low level of satisfaction in the Registration and Pharmacy section (Tessler R, Mechanic D, Dimond M, 1976).

According to Ali (2016) at five dental centers in Kuwait to measure the degree of patient satisfaction among the clinical and nonclinical dental services offered at specialty dental centers. The study showed that the waiting time was the most common problem of dissatisfaction with patient.

The availability of structure such as the latest equipment, cleanliness, music, comfort of seating and choice of magazines has shown to affect patient satisfaction (Andrus and Buchheister, 1985).

A Study by Butter and Willis (2000) indicated that patients who stopped care were less satisfied in terms of quality compared to active or recall patients with regards to explanation of treatment, length and number of visits and fees all these factors influence the patient satisfaction.

Previous studies indicate that socio demographic character may influence a patient's assessment of health institution performance (Hall, Dornan, 1990, Hargraves, Wilson, Zaslavsky, 2001, Larsen, Rootman, 1976).

According to a study by Naidu (2009), socio-demographic factors have positive association with patient satisfaction. These factors include age, education, health status, race, marital status, and social class.

Study of Sadjadian *et al.* (2004), the findings suggest that none of the demographic variables showed any significant association with patients' overall satisfaction.

A study conducted by Sur *et al.* (2004) to measure the level of patient satisfaction in the dental outpatient clinics from a group of state hospitals in Turkey and explores the factors that may influence patient satisfaction. Cross-sectional was collected from patients using face-to-face interviews. The results were concluding that there was no difference between the mean satisfaction scores of the study group with regard to socio-demographic characteristics except for the type of health insurance held by the patient.

In contrast Hillis (2008) did a study to evaluate the level of satisfaction with outpatients with physiotherapy services in outpatient's physiotherapy departments at Al-Shifa Hospital and Al-Wafa Medical Rehabilitation Hospital in Gaza. 151 patients were selected conveniently. The study indicated patient satisfaction level in both hospitals was (87.4%). There are no significant statistical relationships between the patient satisfaction and the demographic variables (gender and age) with physiotherapy services, but there are significant relationships between location and patient satisfaction level. Moreover, there are no significant statistical differences between the socio-economic variables (marital status and educational level) regarding patient satisfaction while there are significant statistical differences between occupation and patient satisfaction with physiotherapy

services. Additionally, there are significant statistical differences between the organizational variables (payment sources of medical care, medical diagnosis groups, hospital /knowledge groups, the first experience of hospital, the first experience of physiotherapy services, the physiotherapy session duration and physiotherapy sessions number) and the patient satisfaction, while there are no significant statistical differences between waiting time and patient satisfaction with physiotherapy services. There is a relation between the levels of patient's satisfaction with physiotherapy services regarding the patients' acceptance of physiotherapist except in appointments registration domain (Hillis, 2008).

A study conducted by Subait *et al.* (2016) aimed to have an overview on how patients perceive dentist-patient relationship and to assess the level of satisfaction amongst Saudi adult follow-up patients seeking dental treatment at the National Guard Health Affairs (NGHA) dental clinics in Saudi Arabia. A total of 129 participants completed the questionnaire. The results were concluding that Gender and socio-economic difference did not influence the level of satisfaction however education was associated with it.

Age is another factor may influence patient satisfaction since there is a change in behavior and the way of thinking with the advancement of age. Younger patients are less tolerant towards dental care workers than older patients (Rahmann, Shahidullah, Shahiduzzaman, & Rashid, 2002).

According to a study by Rahmqvist, (2001), older patients are more satisfied-compared to young and middle-aged patients in health care services. In addition, a study by Hargraves, Wilson, Zaslavsky, James, Walker and Rogers (2001) indicated that older patients tended to have higher levels of satisfaction.

A study conducted by Awad Allah, Eltwansy and El-Shafei (2017), at Zagazig University hospital in Egypt to assess the patient satisfaction regarding the dental health care services and study any patterns of association of socio-demographic variables on the patient satisfaction level. Across-section study was carried out by using questionnaire. The results were concluding that there are statistical significant differences was observed between level of patient satisfaction and age.

In contrast, study conducted by Habib *et al.* (2014) at college of dentistry, King Saud University, Saudi Arabia to evaluate patient satisfaction following comprehensive dental treatment provided by final year dental students at college of dentistry. Cross-sectional was collected from patients using a self-answered questionnaire. The results were concluding that there is no statistically significant difference was found for the overall patient satisfaction score in relation to the age, gender, nationality and educational level.

A study by Wright, Craig, Campbell, Schaefer, and Humble (2006) revealed physical and psychological differences between males and females. The study found that males were more satisfied than females. On the other hand, another study by Al-Doghaither (2004) indicated the complete opposite showing that females were more satisfied than males.

A study conducted by Asgher *et al.* (2015) at Bahria Dental College in Pakistan to know the attitude and satisfaction level of patients. Descriptive cross-sectional conducted. The results were concluding that overall patient satisfaction was good but based on the statistics males were less satisfied as compared to females.

According to Jaipaul, Rosenthal (2003), patients with no education or with only primary education had greater satisfaction scores. The marital status had an effect on the patient satisfaction towards the received care. Those married tended to have greater satisfaction levels. However, another study indicated that patients that were single or divorced had greater satisfaction with the delivered services. The results in the literature varied regarding the job status of the patient and the satisfaction levels. In one study, patient's job status was shown to have an effect on the satisfaction level (Thi, Briancon, Empereur, Guillemin, 2002), while the results of another study showed that the patient job status does not have any effect on patient satisfaction (Crow, Gage, Hampson, Hart, Kimber & Storey, 2002).

A study conducted by Kikwilu *et al.* (2008) at Muhimbili Dental School in Tanzania to determine the patient satisfaction with urgent oral care. Logistic regression analysis conducted by using questionnaire. The results were concluding that Rural resident were more satisfied with cost of treatment than Urban resident, while Urban resident were more satisfied with explanation of treatment than Rural resident.

Education is another important factor may affect patient satisfaction with health care services. A study by Al-Doghaither, (2004) revealed a significant positive relation between education and patient satisfaction. On other hand, according to Mummalaneni and Gopalakrishna (1995), only the income from the socio-demographic factors influences the patient satisfaction.

A study by El khatib (2010) investigated the level of patient satisfaction with Non-Communicable Diseases receiving services from UNRWA health centers of GGs. 400 patients filled the questionnaire with a response rate of (81.8%). The findings reported that unmarried, working, living in the south; educated patients were statistically more satisfied compared to others. In contrary, gender, age, presence of disability, type of treatment provided, and duration of NCDs showed no statistical significant differences in the level of satisfaction. This study also showed that the overall satisfaction level with NCDs services was moderately high (71.9%) (El Khatib, 2010).

According to A study conducted by Lee *et al.* (2013) in Taiwan analyzed the quality of dental services provided to the public by interns. The study found statistically significant differences according to the type of treatment received, gender, marital status, educational level attained, and household income ( $P < 0.05$ ).

El-haj (2008) conducted a study to evaluate the perception of patients in hospital regarding the services provided by the European Gaza Hospital. The findings reported that patients with lower education levels reported higher degree of satisfaction with hospital services compared to patients with higher education levels. The author mentioned that females usually have perception levels about the health care services better than males. Moreover, he mentioned that most studies revealed that old patients are more satisfied with health care services compared to younger ones. The study concluded that delivering high quality health care services would improve overall patient trust in the health care system.

According to Subait *et al.* (2016) to assess the level of satisfaction amongst Saudi adult follow-up patients seeking dental treatment at the National Guard Health Affairs (NGHA) dental clinics in Saudi Arabia, the study found a significant association was found between education and satisfaction level. The higher the education of the patient is, the lesser satisfaction.

According to Sowole (2007) in Nigeria to determine whether patients attending the dental clinic of the Lagos State University Hospital were satisfied with the care they received. The study found a significant association between occupation and satisfaction level.

A study conducted in a tertiary care academic hospital in the USA found that the physician's attitude, interpersonal communication skills, degree of care, treatment explanation, emotional support, respect for patient preferences and involvement of patients in decision-making were important factors on patient satisfaction, more than the clinical competence (Andrabi, Hamid, Rohul, & Anjum, 2012).

## **2.5 Summary / Conclusion (gaps)**

From the presented literature review, patient satisfaction is a positive emotional response to the health services. It is a basic indicator for the quality of health services. Knowledge of the factors affecting the patient satisfaction can be used to improve the quality of services and help give ideas about resolving any problems in a systematic manner. There are few studies on patient satisfaction with health care services in MoH in Palestine. Therefore, this study investigates the factors affecting the patient satisfaction in MoH dental clinics and suggests recommendations to improve the quality of dental care services.

## **Chapter Three**

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### **Conceptual Framework**

The conceptual framework of this study includes various factors which influence the patient's satisfaction, and the following variables:

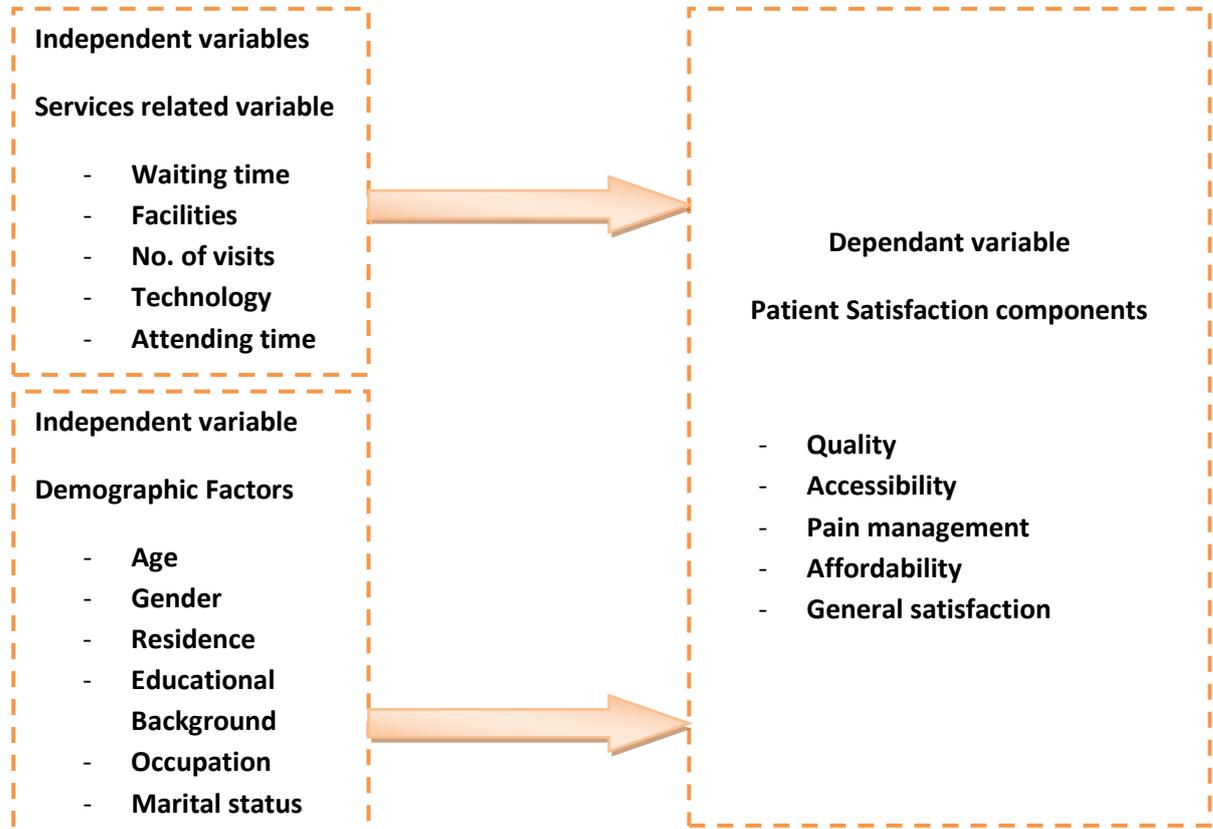
#### **3.1 Dependent Variables:**

A dependent variable is a variable that depends on other measurable factors. The variables are expected to change as a result of an experimental manipulation of the independent variable or variables. It is the presumed effect (Cramer, Duncan and Howitt, 2000). The dependent variables of this study include patient satisfaction dimensions (quality, affordability, accessibility of services, pain management and general satisfaction).

#### **3.2 Independent Variables:**

The independent variable is a variable that is stable and unaffected by the other variables. It refers to the condition of an experiment that is systematically manipulated by the investigator. It is the presumed cause (Cramer, Duncan and Howitt, 2000). The independent variables in this study include services related variable and socio-demographic character of the patient. To elaborate, the service conditions cover the waiting time, the

facilities, number of visits and technology. While the demographic factors include age, gender, educational background, occupation and material status.



**Figure 3.1: Conceptual framework of the study; factors affecting patient satisfaction**

### **3.3 Conceptual definitions:**

#### **Patient Satisfaction:**

Kotler defined satisfaction as “A person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome, in relation to his or her expectations” (Kotler and Keller, 2006, p.144). While a patient’s satisfaction is viewed by Keegan, McDarby, Tansey and McGee (2003) as the “the total experience of health care.

Satisfaction involves intellectual, emotional, psychological factor and previous experience, expectation of the patient”

**Quality of service:**

The quality of service is conceptualized as a comparison between the service expectations and the perception of the actual performance (Zeithaml *et al*, 1990).

**Accessibility:**

WHO defines accessibility “as the availability of good health services within reasonable reach of those who need them and of opening hours, appointment systems and other aspects of service organization and delivery that allow people to obtain the services when they need them” (WHO,2013,P.546).

**Pain management:**

“The ability to provide a comprehensive assessment, competently administer analgesic drugs, and communicate with the patient and family is the basis of pain management” (Portenoy, Russell, and Lesage, 1999, p.136).

**Affordability:**

According to Barber and Miller (2007), affordability is defined as "the percentage of income a household can devote to health care while still having sufficient income to address other necessities” (p.2).

**3.4 Operational definitions:**

**Dependent variable:**

**Quality:**

B10 The receptionist/assistant is helpful and professional.

B11 The dentist treats patients with respect.

B12 The dental operative treats patients with respect.

B13 The dentist explains the procedure to the patient.

B14 The dentist always examines my whole mouth and teeth and asks me about my medical history

B15 The dentist should do prophylactic measures to keep people from having problems with their teeth.

B16 The dentist was able to relieve most of my dental problems.

B17 The dentist is always in a hurry.

B18 The dentist supplies me with information of new technologies and services they provide.

B19 It is easy to obtain follow-up information and care (treatment results, medications, care instructions)?

**Accessibility:**

B.1 you reached the clinic by:

Car public transportation Walked taxi others Specify-----

-

B.2 the dental clinic has a convenient location?

B.3 The opening hours are good.

B.4 I waited for a long time to see the dentist?

B.5 It is hard to get treated on the same day.

B.6 There is enough dentists here

B.7 There is enough space at the dental clinic?

B.8 The waiting area is comfortable.

B.9 The dentist's equipment is modern and up to date

**Pain management:**

B20 I avoid the dentist because of the pain experience.

B21 I am not concerned about pain during the treatment.

B22 The dentist should do more to manage my pain.

B23 The dentist usually offers a different treatment option.

**Affordability:**

B24 The fees are too high at the clinic.

B25 The dentist should always offer me a treatment option I can afford.

**General Satisfaction:**

B26 Overall, I am happy with the dental care I received at this clinic.

B27 Would you recommend this facility and its staff to your family and friends?

**Independent variable:**

**Services related variables:**

**Facilities and technology:-**

B6. There are enough dentists here.

B7. There are enough space in dental clinic?

B9. The dentists' equipment is modern and up to date.

B18. The dentist supplying you with information of new technology and services they provide.

B19. Ease in obtaining follow-up information and care (treatment results, medicines, care instructions)?

**Waiting time:-**

B.4 I waited for a long time to see the dentist?

**No. of visits:-**

B28 I received treatment at this clinic:

Once Twice Three times  More than three times

**Independent variable:**

**Demographic factor:**

A.1 Gender

A.2 Age

A.3 Marital status

A.4 Town/District

A.5 Educational background

A.6 Occupation

For how long have you been attending this clinic?

## **Chapter Four**

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### **Methodology**

#### **4.1 Design:**

Descriptive, quantitative, and cross-sectional methods are used in this study. Descriptive study includes organizing, picturing, and summarizing the information of the sample or population. (Brase and Brase, 2011).

Quantitative research has a value or numerical measurement for which operations such as addition or averaging makes sense. This research method is used to measure the relation between the dependent and independent variable. (Brase and Brase, 2011).

“Cross-sectional studies are carried out at short periods or at one-time point or over a short period. They are usually conducted to estimate the prevalence of the outcome of interest in a given population, commonly for the purposes of public health planning. Data can also be collected on each characteristic, including exposure to risk factors, alongside information about the outcome”. (Levin, 2006, p. 24-25).

#### **4.2 Study setting and population:**

The study carried out at MoH primary health care which includes preventive, promotion, and curative services.

The population of the study covers the patients that are currently treated at the central centers of MoH dental clinics in the West Bank. According to MoH report in 2016, 27602

patients were treated in these clinics (MoH Report, 2016). These patients have governmental insurance or are students referred by MoH school health teams to the dental clinics (Table 4.1.).

**Table 4.1:** Patients that are treated at MoH dental clinics in the West Bank (2016).

<b>Clinic</b>	<b>Number of patients</b>
Al-Ezariyeh	2111
Ramallah	904
Jenin	1807
Hebron	3878
Al-Rameh	2629
Old City	1381
S'eer	2059
Doura	1702
Yatta	2419
Toubas	2286
Nablus	1142
Bethlehem	1722
Salfeet	1261
Qalqiliya	854
Jericho	1447
<b>Total</b>	<b>27602</b>

(Palestinian MoH report, 2016)

### **4.3 Sample:**

The convenient stratified sample included 379 patients that are treated in the MoH dental clinics in the West Bank.

The calculation of the sample was done by using Raosoft calculation, the sample-sized calculators with a 5% margin of error, a 99% confidence level, and a 50% response distribution.

Using the following equation:

$$x = Z(\frac{c}{100})^2 r(100-r)$$

The sample included patients between 18 -60 years old. These age groups formed the majority of the adult population visiting MoH dental clinics. Patient who cannot read and write were excluded from the study sample.

The response rate for participation in this survey was 78.4% (296 out of 379 people approached)

Table 4.2.: Population and sample size per each clinic.

Clinic	No. of Patients	Sample Size
<b>Al-Ezariyeh</b>	2111	29
<b>Ramallah</b>	904	13
<b>Jenin</b>	1807	25
<b>Hebron</b>	3878	53
<b>Al Rama</b>	2629	36
<b>Old City</b>	1381	19
<b>S'eer</b>	2059	28
<b>Doura</b>	1702	23
<b>Yatta</b>	2419	33
<b>Toubas</b>	2286	31
<b>Nablus</b>	1142	16
<b>Bethlehem</b>	1722	24
<b>Salfeet</b>	1261	17
<b>Qalqilya</b>	854	12
<b>Jericho</b>	1447	20
<b>Total</b>	<b>27602</b>	<b>379</b>

#### **4.4 Study tool:**

The self-administered questionnaire was developed from earlier studies to meet the study objectives and conceptual framework. The questionnaire was originally made by Dr. Sowole in 2007 (Sowole, Sote & Folayan, 2007). We sent him several e-mail messages to take his permission to use the questionnaire in our study and permission couldn't obtained; the questionnaire was used for this study, after being translated into Arabic to measure the patient's satisfaction in various clinical settings in MoH dental clinics. In addition, some modifications were done to the questionnaire to ensure that all variables were covered.

The questionnaire consists of five parts: demographic data, accessibility, quality, pain management, affordability and general satisfaction. The questionnaire includes 25 statements on a Likert scale from 1-5 (See in the appendix A).

#### **4.5 Data collection**

The self-administered questionnaire was distributed and collected by the researcher during the period of 4 months from patients treated in Palestinian MoH dental clinics.

#### **4.6 Pilot Study**

A pilot study including 30 patients from three MoH dental clinics was done to test questionnaire. Participants had not difficulty in answering the questions. The filled questionnaires in the pilot phase were used in the study.

#### **4.7 Data analysis**

The data were analyzed by using the statistical package for social science (SPSS) version 20.

Data analysis was completed in 6 steps:

- 1) Descriptive statistics used (frequency and percentages) means and standard deviation.
- 2) Defferential analysis used T-test, one way ANOVA, Pearson correlation coefficient, step wise multiple regression analysis and Chronbach alpha.

#### **4.8 Permission and ethical considerations:**

Al-Quds University asked ethical approval of the Ministry of Health and primary health care to carry out the study. Patients were informed about the nature and importance of the study and that their participation is voluntary, the patients have the full right to withdraw from study at any time. Privacy, confidentiality and autonomy were maintained throughout the research process. Moreover, the names of participants were not required.

## **Chapter Five**

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### **Results**

#### **5.1 Introduction**

This chapter presents the results of the statistical analysis of the data. Descriptive analysis presents the characteristics of the respondents at MoH dental clinics in addition to the analysis of the dimensions of patient satisfaction. The relation between selected variables and socio-demographic characters, as well as the main factors influencing patient satisfaction with MoH dental clinics are presented.

##### **5.1.1 Descriptive analysis:**

It includes descriptive analysis of socio-demographic factor such as gender, sex, marital status, residency, educational status and occupation, in addition to how long the subject has been attending the clinic (Table 5.1.).

Table 5.1: Demographic data of the respondents

<b>Variable</b>	<b>Group</b>	<b>Number</b>	<b>Percent</b>
<b>Gender</b>	<b>Male</b>	109	36.8
	<b>Female</b>	187	63.2
	<b>Sum</b>	296	100.0
<b>Age</b>	<b>18-29yrs</b>	92	31.1
	<b>30-39yrs</b>	103	34.8
	<b>40-49yrs</b>	70	23.6
	<b>50-59yrs</b>	26	8.8
	<b>60yrs+</b>	5	1.7
	<b>Sum</b>	296	100.0
<b>Marital status</b>	<b>Single</b>	64	21.6
	<b>Married</b>	217	73.3
	<b>Divorce</b>	11	3.7
	<b>Widow</b>	4	1.4
	<b>Sum</b>	296	100.0
<b>Residence</b>	<b>City</b>	195	65.9
	<b>Camp</b>	19	6.4
	<b>Town</b>	82	27.7
	<b>Sum</b>	296	100.0
<b>Educational background</b>	<b>Primary</b>	34	11.5
	<b>Secondary</b>	107	36.1
	<b>College</b>	34	11.5
	<b>University</b>	104	35.1
	<b>None</b>	17	5.8
	<b>Sum</b>	296	100.0
<b>Occupation</b>	<b>Civil Servant.</b>	100	33.8

	<b>Business/Trading</b>	20	6.8
	<b>Pensioner/Retire</b>	5	1.7
	<b>Student.</b>	44	14.9
	<b>Not working</b>	118	39.9
	<b>Others</b>	9	3.0
	<b>Sum</b>	296	100.0
<b>For how long have you been attending this clinic</b>	<b>&lt;1yr</b>	101	34.1
	<b>Between 1-5yrs</b>	129	43.6
	<b>5-10yrs</b>	35	11.8
	<b>&gt;10yrs</b>	31	10.5
	<b>Sum</b>	296	100.0
<b>I received treatment at this clinic</b>	<b>One</b>	72	24.3
	<b>Twice</b>	91	30.7
	<b>Three times</b>	56	18.9
	<b>More than three times</b>	77	26.0
	<b>5-10yrs</b>	35	11.8
	<b>&gt;10yrs</b>	31	10.5
	<b>Sum</b>	296	100.0

The study included a total male patients of 109 (36.8%), and a total female patients of 187 (63.2%). All respondents' age was between 18-60 years old. A total of 92 patients (31.1 %) were at the age between 18-29 years, 103 patients (34.8 %) were at the age between 30-39 years, 70 patients (23.6 %) were at the age between 40-49 years, 26 patients (8.8 %) were at the age between 50-59 years and 5 patients (1.7 %) were at the age of 60 years old.

The majority of patients (73%) were married, 22% of whom were single, 4% were divorced and 1% were widowed. Sixty six percent of patients lived in cities whereas 28% of patients were from towns and 6% of patients were from camps.

Eleven point five percent of patients graduated from college, 35.1% of patients graduated from university, and 5.8% of patients were non-educated. Nearly 34 % of patients worked as civil servants, 6.8% of patients worked in business, 1.7% of patient were as pensioners,

14.9% of patients were students, 39.9% of patients did not work and 3% of patients were listed under ‘others’.

-For how long have you been attending this clinic?

34.1% of patients attended the clinic for 1 year only, 43.6% of patients attended the clinic between 1-5 years, 11.8% of patients attended the clinic between 5-10 years and 10.5% of patients attended the clinics for more than 10 years.

The answers for the question “I received treatment at this clinic” are shown in table 5.2.

Table 5.2: Frequency and the percentages of the Number of visits

	<b>Frequency</b>	<b>Percent</b>
<b>One</b>	72	24.3
<b>Twice</b>	91	30.7
<b>Three times</b>	56	18.9
<b>More than three times</b>	77	26.0
<b>Total</b>	296	100.0

31% of patients visited the clinic twice, and 26% visit the clinic more than one to five times.

Table 5.3: Frequency and percentage of the question (There are enough dentists here).

	<b>Frequency</b>	<b>Percent</b>
<b>Strongly disagree</b>	6	2.0
<b>Disagree</b>	89	30.1
<b>Neutral</b>	28	9.5
<b>Agree</b>	148	50.0
<b>Strongly agree</b>	25	8.4
<b>Total</b>	296	100.0

Table 5.4: Frequency and percentage of the question (There are enough space in dental clinic)

	<b>Frequency</b>	<b>Percent</b>
<b>Strongly disagree</b>	13	4.4
<b>Disagree</b>	76	25.7
<b>Nuetral</b>	14	4.7
<b>Agree</b>	175	59.1
<b>Strongly agree</b>	18	6.1
<b>Total</b>	296	100.0

Table 5.5: Frequency and percentage of the question (The dentists' equipment is modern and up to date).

	<b>Frequency</b>	<b>Percent</b>
<b>Strongly disagree</b>	15	5.1
<b>Disagree</b>	136	45.9
<b>Neutral</b>	39	13.2
<b>Agree</b>	90	30.4
<b>Strongly agree</b>	16	5.4
<b>Total</b>	296	100.0

Table 5.6: Frequency and percentage of the question (The dentist supplying you with information of new technology and services they provide).

	<b>Frequency</b>	<b>Percent</b>
<b>Strongly disagree</b>	1	.3
<b>Disagree</b>	115	38.9
<b>Neutral</b>	40	13.5
<b>Agree</b>	124	41.9
<b>Strongly agree</b>	16	5.4
<b>Total</b>	296	100.0

**Table 5.7:** Frequency and percentage of the question (Ease in obtaining follow-up information and care) (treatment results, medicines, care instructions)

	<b>Frequency</b>	<b>Percent</b>
<b>Strongly disagree</b>	2	.7
<b>Disagree</b>	62	20.9
<b>Neutral</b>	27	9.1
<b>Agree</b>	191	64.5
<b>Strongly agree</b>	14	4.7
<b>Total</b>	296	100.0

### 5.1.2 The analysis of patient satisfaction dimensions

The overall satisfaction breakdown in this study was according to the following scale:

1	2	3	4	5
Strongly disagree	Disagree	N/A	Agree	Strongly agree
 <b>Disagreement</b> range value: 1.0 – 2.4		 <b>Neutral</b> range value: 2.5 – 3.4	 <b>Agreement</b> range value: 3.5 – 5.0	

Whereby the overall agreement or satisfaction score included the “strongly agree” and “agree” categories and ranged between 3.5 – 5.0; the overall disagreement or dissatisfaction included the “strongly disagree” and “disagree” categories with a range of 1.0 – 2.4. Any value between 2.5 – 3.4 was considered neutral (Crookall and Oxford, 1990).

### 1- ACCESS/CONVENIENCE/ FACILITY

The data presented in table 5.2., show that 69 patients (23.3%) reached the clinic by car, 137 patients (46.3%) reached the clinic by public transportation, 45 patients (15.2%) reached the clinic by private taxi, and 44 patients (15.2%) walked to clinic.

Table 5.8: Way of transportation

	<b>Frequency</b>	<b>Percent</b>
<b>Car</b>	69	23.3
<b>Public</b>	137	46.3
<b>Taxi</b>	45	15.2
<b>Walking</b>	45	15.2
<b>Total</b>	296	100.0

Frequency and the percentages calculated for item one you reached the clinic by:

Several questions were related to accessibility, the results of answers are shown in table 5.9 below.

Table 5.9: Means and S.D of the accessibility and degree of patient satisfaction

<b>No.</b>	<b>Item</b>	<b>Mean</b>	<b>Standard dev.</b>	<b>Degree</b>
2	<b>The opening hours are good</b>	3.87	.74	agree
1	<b>The dental clinic has a convenient location</b>	3.80	.79	agree
6	<b>There is enough space at the dental clinic</b>	3.37	1.07	neutral
5	<b>There is enough dentists here</b>	3.33	1.06	neutral
7	<b>The waiting area is comfortable</b>	3.13	1.15	neutral
3	<b>I waited for a long time to see the dentist?</b>	2.88	1.05	neutral
8	<b>The dentist's equipment is modern and up to date</b>	2.85	1.08	neutral
4	<b>It is hard to get treated on the same day</b>	2.84	1.10	neutral
<b>ACCESS/CONVENIENCE/FACILITY</b>		3.26	.48	neutral

The table 5.9 shows that the patients are neutral for access/convenience/facility with a mean value of 3.26. While they agree the opening hours are good with a mean of 3.87 and

the dental clinic has a convenient location with a mean of 3.80, the item with the least mean value is “It is hard to get treated on the same day” with a mean of 2.84 which indicates that it is not hard to get treated, in addition the table shows that the patients are neutral with the waiting time with a mean of 2.88 and the dentists equipment is modern and up to date with a mean of 2.85, that means that the patients are not satisfied about waiting time, treatment schedule and dentists equipment.

## 2-QUALITY (INTERPERSONAL/TECHNICAL/OUTCOME)

Table 5.10: Means and S.D of the quality and degree of patient satisfaction.

No.	Item	Mean	Standard dev.	Degree
2	<b>The dentist treats patients with respect</b>	4.14	.56	agree
3	<b>The dental operative treats patients with respect</b>	4.02	.60	agree
6	<b>The dentist should do prophylactic measures to keep people from having problems with their teeth</b>	3.83	.72	agree
4	<b>The dentist explains the procedure to the patient</b>	3.71	.91	agree
5	<b>The dentist always examines my whole mouth and teeth and asks me about my medical history</b>	3.70	.89	agree
7	<b>The dentist was able to relieve most of my dental problems</b>	3.70	.81	agree
1	<b>The receptionist/assistant is helpful and professional</b>	3.68	.88	agree
10	<b>It is easy to obtain follow-up information and care</b>	3.52	.90	agree
9	<b>The dentist supplies me with information of new technologies and services they provide</b>	3.13	1.01	neutral
8	<b>The dentist is always in a hurry</b>	2.51	.92	neutral
<b>QUALITY (INTERPERSONAL/TECHNICAL/OUTCOME)</b>		3.59	.44	agree

The table shows that the patients are agree for quality (Interpersonal/technical/outcome) with a mean value of 3.59; while they agree that The dentist treats patients with respect with a mean of 4.14 and The dental operative treats patients with respect with a mean of 4.02, the item with the least mean score is The dentist is always in a hurry with a mean of 2.51.

### 3-PAIN MANAGEMENT

Table 5.11: Means and S.D of the pain and degree of patient satisfaction.

No.	Item	Mean	Standard dev.	Degree
2	<b>I am not concerned about pain during the treatment</b>	4.03	.56	agree
3	<b>The dentist should do more to manage my pain</b>	3.84	.94	agree
4	<b>The dentist usually offers a different treatment option</b>	3.38	1.00	neutral
1	<b>I avoid the dentist because of the pain experience</b>	3.14	1.15	neutral
<b>PAIN MANAGEMENT</b>		3.60	.48	agree

Table shows that the patients are agree with pain statement with a mean value of 3.60; they are agree that “I am not concerned about pain during the treatment” with a mean of 4.03 and “The dentist should do more to manage my pain” with a mean of 3.84, the item with the least mean value is “I avoid the dentist because of the pain experience” with a mean of 3.14.

### 4-AFFORDABILITY

Table 5.12: Means and S.D of the affordability and degree of patient satisfaction.

No.	Item	Mean	Standard dev.	Degree
2	<b>The dentist should always offer me a treatment option I can afford</b>	3.84	0.73	agree
1	<b>The fees are too high at the clinic</b>	3.53	0.71	neutral
<b>AFFORDABILITY</b>		3.69	0.66	agree

Table shows that the patients are agree for affordability, with a mean of 3.69. They agree that “the dentist should always offer me a treatment option I can afford” with a mean of 3.84 and “the fees are too high at the clinic” with a mean of 3.53, that’s mean the patient is satisfied on cost.

## 5-GENERAL SATISFACTION

Table 5.13: Means, S.D and degree of general satisfaction.

No.	Item	Mean	Standard dev.	Degree
1	<b>Overall, I am happy with the dental care I received at this clinic</b>	3.79	.79	agree
2	<b>Would you recommend this facility and its staff to your family and friends</b>	3.79	agree	agree
<b>GENERAL SATISFACTION</b>		3.79	.69	agree

Table shows that the patients are agree with general satisfaction with a mean of 3.79. They generally agree that “Overall, I am happy with the dental care I received at this clinic” with a mean of 3.79 and “would you recommend this facility and its staff to your family and friends” with a mean value of 3.79.

## 6-OVERALL SATISFACTION (quality, accessibility, pain management, affordability and general satisfaction)

Table 5.14: Means, S.D and percent of overall satisfaction

	Mean	S.D	Percent
<b>Overall satisfaction</b>	3.47	0.31	69.4

The table shows that the overall satisfaction is good with mean 3.47 and percent 69.4%.

### 5.1.3 The relation between patient satisfaction and socio demographic characters

#### Hypothesis number one:

There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH in the West Bank of Palestine with respect to soci -demographic characters (gender ,age, marital status, residence, educational background and occupation).

To test the hypothesis t-test and anova used for compare of means of Patient Satisfaction with primary dental services provided by MoH in the West Bank of Palestine with respect to soci -demographic characters (gender ,age, marital status, residence, educational background and occupation).

Table 5.15: Patient satisfaction with respect to socio demographic characters by t-test and anova

Variable	Access		Quality		Pain		Affordability		General satisfaction		Total degree	
	F	SIG.	F	SIG.	F	SIG.	F	SIG.	F	SIG.	F	SIG.
<b>Gender</b>	.658	.511	.158	.875	1.383	.168	.660	.510	.200	.842	-.232	.816
<b>Age</b>	.288	.886	1.445	.219	.700	.593	.903	.462	.982	.417	1.107	.353
<b>Marital status.</b>	.770	.512	.168	.918	.825	.481	.224	.880	.084	.969	.320	.811
<b>Residence</b>	2.737	.066	.333	.717	.030	.970	1.053	.350	.431	.650	1.760	.174
<b>Educational background</b>	.546	.741	1.783	.116	1.925	.090	.670	.647	.701	.623	1.241	.290
<b>Occupation</b>	1.352	.243	3.809	.002	1.765	.120	1.340	.247	1.340	.247	2.132	.062
<b>time of attending the clinic</b>	.834	.476	.975	.405	5.040	.002	.503	.680	.952	.416	.956	.414

The results in table 5.15 show that there are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to gender.

There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to age.

There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to marital status.

There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to residence.

There are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to educational background.

There are differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to occupation, mainly in the domain of quality.

Table 5.16: Scheffe test for occupation

	<b>Civil Servant.</b>	<b>Business/Trading</b>	<b>Pensioner/Retire</b>	<b>Student.</b>	<b>Not working</b>	<b>Others</b>
<b>Civil Servant.</b>						
<b>Business/Trading</b>	.18000					
<b>Pensioner/Retire</b>	-.04885	-.22885				
<b>Student.</b>	.03175	-.14825	.08059			
<b>Not working</b>	.06178	-.11822	.11063	.03003		
<b>Others</b>	.31098**	.13098	.35983	.27923	.24920	

The results show that there is differences between civil servant and others in total degree of satisfaction in favor of civil servant.

There are differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine in quality domain with respect to occupation.

Table 5.17: Scheffe test differences between civil servant and others to civil servant

	<b>Civil Servant.</b>	<b>Business/Trading</b>	<b>Pensioner/Retire</b>	<b>Student.</b>	<b>Not working</b>	<b>Others</b>
<b>Civil Servant.</b>						
<b>Business/Trading</b>	0.35**					
<b>Pensioner/Retire</b>	0	-0.35**				
<b>Student.</b>	0.15	-0.2	0.15			
<b>Not working</b>	0.18	-0.17	0.18	0.03		
<b>Others</b>	0.34**	-0.01	0.34**	0.19	0.16	

Table 5.17 shows that there are differences between civil servant and (Business/Trading, others) in favor of civil servant and between Business/Trading and Pensioner/Retire in favor of Pensioner/Retire.

Finally, there are no differences at the level of significance  $\alpha \leq 0.05$  in Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine with respect to attending time except in pain management.

Table 5.18: Multiple comparisons for pain management.

Scheffe

<b>&gt;10yrs</b>	<b>5-10yrs</b>	<b>between 1-5yrs</b>	<b>&lt;1yr</b>	
				<b>&lt;1yr</b>
			.20642**	<b>between 1-5yrs</b>
		-.18754-	0.01888	<b>5-10yrs</b>
	-.06959-	-.25713-	-.05070-	<b>&gt;10yrs</b>

\*. The mean difference is significant at the 0.05 level.

Table 5.18 show that there are differences between before a year and one to five in favor of one to five.

**5.1.4 The main components influencing patient satisfaction in MoH dental clinics related to service variables (waiting time, number of visits, facilities and technology).**

**Hypothesis number two:**

There are no significant relationship at the level of significance  $\alpha \leq 0.05$  between the waiting time, number of visit, facilities and technology and Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine.

To test the hypothesis Pearson correlation coefficient are calculated to test the relationship at the level of significance  $\alpha \leq 0.05$  between waiting time, number of visit, facilities and technology and Patient Satisfaction with primary dental services provided by MoH dental clinics in the West Bank of Palestine.

Table 5.19: Relation between patient satisfaction and waiting time, number of visit, facilities and technology.

VARIABLE	ACCESS/		QUALITY		PAIN		AFFORDABILITY		GENERAL SATISFACTI ON		TOTAL DEGREE	
	R	SIG.	R	SIG.	R	SIG.	R	SIG.	R	SIG.	R	SIG.
Waiting time	.281	.000**	-.133	.011**	.119	.021**	-.061	.146	-.198	.000**	.099	.045*
Facilities	.677	.000**	.309	.000**	-.032	.295	.032	.291	.223	.000**	.545	.000**
Number of visits	.476	.000**	.639	.000**	.166	.002**	-.040	.246	.366	.000**	.655	.000**
Technology	.109	.031**	.143	.007**	.006	.459	.078	.090	.123	.017**	.156	.004**

There is a negative relationship between the waiting time and Patient Satisfaction in the domain “quality and overall satisfaction” and there is a positive relationship with access and pain management as shown in table 5.19.

There is a significant relationship between facilities and Patient Satisfaction with quality and access to service and overall satisfaction as shown in table 5.19.

There is a positive relationship between availability of technologies and Patient Satisfaction in the domain of accessibility, quality and pain management and overall satisfaction as shown in table 5.19.

There is a positive relationship between the number of visits and Patient Satisfaction with the primary dental services provided by MoH dental clinics in the West Bank of Palestine with the exception of the domain “pain and affordability” as shown in table 5.19.

What are the factor have more influence on total satisfaction?

Table 5.20: Step wise multiple regression analysis used to measure the degree of influence of determinants on overall satisfaction.

Model	R Square	Change Statistics				
		R Square Change	F Change	df1	df2	Sig. F Change
1	.691	.691	657.124	1	294	.000
2	.890	.199	528.621	1	293	.000
3	.945	.056	297.807	1	292	.000
4	.976	.031	380.363	1	291	.000
5	1.000	.024	68653050087003 41.000	1	290	.000

Quality has high influence on patient total satisfaction since the coefficient of determination is 0.691 which mean it interpret 69% of variances with overall satisfaction, then the access interpret 0.199 of the variances ,then pain management interpret 0.056 of the variances , affordability interpret 0.031 ,and general satisfaction interpret 0.024.

## **Chapter Six**

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### **Discussion**

#### **6.1 Introduction:**

Determining the level of patient satisfaction and the components influencing the patient satisfaction with dental services of MoH in West Bank are necessary steps for health care planner to identify resources needed for dental services and to improve the provided services in MoH dental clinics.

This chapter discusses the findings and conducts comparisons of this study findings and other studies done in the region and globally in terms of agreements and disagreements and discussion of study hypotheses.

#### **6.2 Discussion of the results of the level of satisfaction:**

According to the results of this study, a reasonable majority of patients exhibited a satisfaction level of 65.2% by which they were satisfied with access to care services provided by MoH dental clinics in the West Bank of Palestine, 71.8% of them were satisfied with the quality of care, 72% of patients were satisfied with pain management, 73.8% of them were satisfied with the affordability of the service, a good number was

happy with the dental care they received and 75.8% of them would recommend the services to their relatives and friends. In general, the overall satisfaction of the participants in this study was 69.4%. The study done by Al Kariri (2010), also showed somewhat parallel outcomes with an overall patients' satisfaction of 63.9%. Furthermore, similar findings were displayed by Al Sharif (2008), in which approximately 70.2% of respondents rated their general satisfaction with governmental hospitals as “good” to “very good”. While in non-governmental hospitals, satisfaction levels were slightly higher; more than 90 % of respondents ranked it as “good” to “very good”. While in Abu Mourad *et al.* (2007) study findings showed that the mean percentage of positive satisfaction with medical services was poor (41.8%). In contrast; Davy *et al.* (2009) study reported higher level satisfaction (93.1%). Also, Hillis (2008) study findings showed that the level of patient satisfaction with physiotherapy services in both hospitals has been (87.4%).

### **6.3 Discussion results of the hypothesis:**

#### **6.3.1 Discussion of the differences in overall satisfaction and demographic character of the respondents:**

The result indicated that there is no statistically significant difference between the age and general satisfaction. Therefore, age has no influence on the level of satisfaction. This is in agreement with the study of Subait *et al.* (2016) results which concluded that socio-economic difference did not influence the level of satisfaction however education was associated with it. Also, Habib *et al.* (2014) found that there is no statistically significant difference for the overall patient satisfaction score in relation to the age, gender, nationality and educational level.

In contrast, the study by Alkariri (2010) revealed age has statistically significant difference on patient level of satisfaction. The study by Awad Allah, Eltwansy and El-Shafei (2017), at Zagazig University hospital in Egypt to assess the patient satisfaction regarding the dental health care services and study any patterns of association of socio-demographic variables on the patient satisfaction level. The results showed that there are statistical significant differences was observed between level of patient satisfaction and age. Therefore, the result in our study indicated that the age has no influence on the level of satisfaction.

The results indicated that there is no statistically significant difference between gender and overall satisfaction. Our finding was consistent with Sur *et al.* (2004) study findings which concluded that there was no difference between the mean satisfaction scores of the study group with regard to socio-demographic characteristics except for the type of health insurance held by the patient. On the same note, Habib *et al.* (2014) study results found that there is no statistically significant difference was found for the overall patient satisfaction score in relation to the age, gender, nationality and educational level.

In contrast, to a study conducted by Asgher *et al.* (2015) concluded that overall patient satisfaction was good but based on the statistics males were less satisfied as compared to females. Alkariri (2010) revealed that there is a correlation between gender and the patient's level of satisfaction.

This study shows that both male and female patients underwent similar situations and circumstances that lead both male and female patients to express similar experiences and satisfaction levels. Accordingly, gender did not have an impact on the patients' perceptions and expectations.

The results indicated that there is no statistically significant difference between marital status and overall satisfaction. So we accept the hypothesis and conclude that there are no significant differences of marital status and overall satisfaction. This is in agreement with Sadjadian *et al.* (2004), study findings which concluded that demographic variables such as the marital status did not show any significant association with patients' overall satisfaction. Similarly, Subait *et al.* (2016) study results found that socio-economic difference did not influence the level of satisfaction however education was associated with it. Conversely, Jaipaul & Rosenthal (2003), study findings which concluded that the marital status had an effect on patient satisfaction of the received care services in the sense that married individuals had greater satisfaction levels. The study done by Lee *et al.* (2013) also showed that statistically significant differences according to the type of treatment received, gender, marital status, educational level attained, and household income ( $P < 0.05$ ).

The study findings found that no association between patients' satisfaction and marital status suggesting that this variable is an ineffective factor to measure patients' satisfaction.

The results indicated that there is no statistically significant difference between residence and overall satisfaction. So we accept the hypothesis and conclude that there are no

significant differences between residence and overall satisfaction. The study findings was consistent with the Sur *et al.* (2004) study findings which concluded that there was no difference between the mean satisfaction scores of the study group with regard to socio-demographic characteristics except for the type of health insurance held by the patient. Studies done by Ahmed (2009) and Al Hindi (2002), study results found that there were no differences between the residency location and the satisfaction level. On the other hand, the study done by Elkatib (2010) study results found a significant difference between place of residence of the study population and patient's satisfaction whereby those who live in the south have a reasonably high satisfaction scores when compared to those who live in the middle area who scored the highest. However, individuals living in Gaza and the Northern area have the lowest scores. This result inconsistent with Mousa (2000) study findings which concluded that the clients who were living inside refugee camps were more satisfied by MoH and UNRWA services than the clients' who were living outside refugee camps. The study done by Kikwilu *et al.* (2008), study results also found that the Rural resident were more satisfied with cost of treatment than Urban resident, while Urban resident were more satisfied with explanation of treatment than Rural resident.

The results of this study show that there is no effect between the location of residence of the patients on their satisfaction.

The result indicated that there is no statistically significant difference between level of education and overall satisfaction. So we accept the hypotheses and conclude that there are no significant differences of level between education and overall satisfaction. The study findings was consistent with the study of Subait *et al.* (2016) which concluded that the socio-economic difference did not influence the level of satisfaction however education was associated with it. The study findings of Habib *et al.* (2014) also similar to this research study, in which there is no statistically significant difference was found for the overall patient satisfaction score in relation to the age, gender, nationality and educational level. In contrast, our findings were not parallel with Stein *et al.* (1993) study findings which concluded that more educated individuals were less satisfied with their care, which is in another contrast with Subait *et al.* (2016) study results also found that a significant association was found between education and satisfaction level. The higher the education of the patient is, the lesser satisfaction.

Also, Lee *et al.* (2013) found that there is statistically significant differences according to the type of treatment received, gender, marital status, educational level attained, and household income ( $P < 0.05$ ).

The results of this study showed that there is no relationship between the levels of education of the patients and their satisfaction.

In addition, the study found that there is a statistically significant difference at  $\alpha = 0.05$ , between the satisfaction with MoH dental clinics services according to occupation, and according to scheffe test for multiple comparison table (5.22) show that there is a difference between civil servants and “Business/Trading, others” and between Business/Trading and Pensioner/Retire to Pensioner/Retire. This is in agreement with Al sharif (2008) study findings which concluded that un-employed patients reported a higher level of overall satisfaction in comparison to employed patients. Also, Sowole (2007). study results found that there is a significant association was found between occupation and satisfaction level.

However, both Sadjadian (2004) and Al Hindi (2002) study findings which concluded that there were no significant statistical differences between occupation and patients' satisfaction. The study done by Sur *et al.* (2004), study results found that there was no difference between the mean satisfaction scores of the study group with regard to socio-demographic characteristics except for the type of health insurance held by the patient.

The outcome of this study shows that occupation of the patients has an effect on their satisfaction, and that this variable can be considered to evaluate patients' satisfaction. One reason as to why civil servant patients and pensioner are more satisfied with MoH dental clinics is because of the low cost of treatment.

### **6.3.2 Discussion result of service related variables (time and continuity of treatment, waiting time, number of visits, facilities and technology):**

The result indicated that there is no significant statistical difference between time and overall satisfaction except pain.—On pain, the study found that there is a statistical significant difference at  $\alpha = 0.05$ . Of the satisfaction with MoH dental clinics services according to time, and according to scheffe test, the multiple comparisons table (5.25) shows a difference between “before a year” and “one to five years”.

This result is in line with the findings of Baker, Mainous, Gray, and Love (2003), study findings which concluded that there was no significant statically difference between the continuity of treatment and patient satisfaction. Another study by Forrest, Shi, von Schrader, and Ng. (2002) the study results found that there was no relation between the continuity of treatment and patient satisfaction. Compared to a study done by Donahue, Ashkin, and Pathman (2005), study findings concluded that there was a moderately strong relation between the length of patient-physician relationship and patients' satisfaction.

The researcher believes that the lack of relation between the patient satisfaction and continuity of visit is possibly related to their inability to capture important elements of the doctor-patient relationship.

The study found that there was a significant relationship between the overall satisfaction and the waiting time in MoH dental clinics of the West bank ( $p = 0.000$ ). This means that the waiting time to receive MoH dental clinics services plays a role in the level of the patient's satisfaction. Our finding was consistent with Ali (2016) study findings which concluded that the waiting time was the most common problem of dissatisfaction with patient.

On the same note, Lundstrom, Pugliese, Bartley, Cox, & Guither (2002), study results found that the patient satisfaction is affected by working conditions like waiting time, facilities, geographic location, number of visitos and technology. Also, Damghi, (2013) found that the waiting time was the most common problem of dissatisfaction with patients. Therefore, health manager should find a way to decrease the waiting time through management of time and detection of the number of patients they received through appointments for patients except emergency cases to present the best service for them.

The study found that there was a significant relationship between the overall satisfaction and the facilities of MoH dental clinics services ( $p = 0.00$ ). This means that the facilities of MoH dental clinics services play a role in the level of patient's satisfaction. A study done by Lundstrom, Pugliese, Bartley, Cox and Guither (2002), study results found a similar finding; the patients' satisfaction is affected by working conditions like waiting time, facilities, geographic location, number of visit and technology.

A study conducted by Mahrous (2012), study findings which concluded that that majority of patients were satisfied with the patient-dentist interaction, technical competency, administrative efficiency.

A study done by Nagappan and John (2014) study results also found that the majority of the patients were satisfied with the facilities, services and treatment received at hospital except for facilities such as water supply and scheduling appointments with patient convenience.

In addition, good physical facilities are very necessary in shaping the client and parents' experience (Mulhall *et al*, 2004).

This finding is in correlation with all previous studies regarding the relation between the patients' satisfaction and facilities.

In addition, the study found that there was a significant relationship between the overall satisfaction and the technology of MoH dental clinics services ( $p = 0.000$ ). This means that the technology of MoH dental clinics services plays a role in the level of patient's satisfaction. This finding is expressed in a study done by American Institute of Architects (2001), study findings which concluded that the design of institute along with its adequate equipment either fixed or moveable components can have a significant influence on the patient's and worker's performance, the safety of the workers, patients, and families in order to reflect a significant influence on the patient's satisfaction. In addition, smaller hospitals show greater satisfaction results in comparison with bigger hospitals (Young, Meterko & Desai, 2000).

The study done by Patil *et.al* (2016), study results found that participants were overall satisfied with the dental treatment provided to their child and the overall setup of the clinic.

This finding is consistent with Reason (1997), study findings which concluded that latent conditions such as poorly designed structure, including the technology and equipment location; complex procedures; training problem; shortages or inadequate staff; and unsafe culture can negatively affect the patient's satisfaction (Reason, 1997). Establishment of better processes and systems, standardization of patient room, improving treatment areas, equipment, and procedures can reduce this problem and improve the patient satisfaction (Institute of Medicine, 1999).

This finding is in agreement with all previous studies regarding the relation between patient satisfaction and technology. Therefore, decision makers should improve the facilities and technology in MoH dental clinics ensuring the presence of up-to-date equipment.

Finally, the study found that there was a significant relationship between the overall satisfaction and the number of visits to MoH dental clinics services ( $p = 0.000$ ). This means that the number of visits to MoH dental clinics services plays role in the level of patient's satisfaction. This is expressed in a study done by Ware, Davies-Avery, and Stewart (1978), study findings which concluded that there was a positive relationship between the number of visits and the patient's satisfaction, On the other hand, the study done by (Linn, Linn and Stein 1982; Pascoe and Attkinsson 1983; West 1976), study results found an inverse relationship between satisfaction and the frequency of outpatient visits. The study done by Al kariri (2010), also found that following factors did not report statistically significant difference in the level of satisfaction: marital status, number of visits, place of residency, presence of disability, recipient outpatient clinic, and place.

This study is consistent with Pascoe (1983) who viewed patient satisfaction as an outcome of the process in which patients assess the actual performance of the health care service against their expectations. This process is dynamic. As patients gain experience, or as their medical condition changes during the treatment process, patients may modify their expectations. It is also likely that their evaluation criteria or the priority placed on the salient service quality dimensions may evolve from the day they first visit the hospital. In conclusion, there is a positive relation between the number of visits and the patient's satisfaction. Therefore, health manager should find a way to decrease number of visit of treatment.

## **Chapter Seven**

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### **Conclusion And Recommendation**

#### **7.1 Conclusions:**

The response rate was moderate at 78.4 %. As for the reliability coefficient of the study instrument, it was high (0.871). The reported overall satisfaction level was 69.4%. The domains of satisfaction towards MoH dental clinics services included quality, accessibility of services, pain management, affordability and general satisfaction. The study explained the relation between the overall satisfaction and all domains of satisfaction. The highest expressed level of satisfaction was general satisfaction with MoH dental clinics services (75.8%). This reflects to what extent the patients are generally satisfied with the services of MoH dental clinics. This is evident from their approval of the dental care they received and their recommendation of the facility to their families and friends. The study showed moderate satisfaction with the technical quality, which is probably due to the fact that most of the service providers are new employees and lack the experience and professional skills, in addition to the work overload and the huge number of patients. Accordingly, they need intensive training and the involvement of the patient in the treatment plan. The moderate level of satisfaction with pain is due to the belief of most of patients that dentists should do more to manage their pain, and most of them avoid the dentists because of the pain experience. The outcomes also show a low level of satisfaction with access and convenience. As a result of crowded MoH centers, patients feel the inconveniency as they

have to wait for a long time before being seen by the doctor, they also expressed their dissatisfaction about noises of the centers. Proper organization and improving the appointment system will alleviate the complaining of the patients and improves responsiveness and convenience level. This requires a re-examination of the geographical distribution of the MoH dental clinics, an increase in the number of employees, and a focus on improving the dentist equipment.

Low level of satisfaction was reported with affordability because most of the patients believe that the dentists should always offer the treatment option they can afford. Additionally, the patients who visit the MoH dental clinics have governmental insurance and they expect it to cover all dental treatment. The study showed no statistical significant differences with socio-demographic variables such as gender, age, marital status, residence and the level of education, except the occupation. Therefore, the hypotheses are accepted, and one concludes that there are no significant differences of these variables and overall satisfaction. The patients who were civil servants or pensioner rated the satisfaction level higher than other patients because they had low income so they are more satisfied with MoH services which provide their healthcare services at low costs. The study also reflected that factors including waiting time, number of visit; facilities and technology have a positive relationship with the patient's satisfaction.

## **7.2 Recommendations:**

1- MoH decision-makers, managers and health professionals should improve the quality of the provided healthcare services to achieve a higher level of patient satisfaction. This can be achieved by continuous assessment and evaluation of quality. Continuous assessment help to explore the dissatisfied areas that need more enhancements to improve the quality of MoH dental clinics services.

2- MoH health professional should do more to manage the patient pain by investing in an appropriate pain management program.

3- MoH health manager should find a way to decrease number of visit and decrease the waiting time through management of time and detection of the number of patients they

received through appointments for patients except emergency cases to present the best service for them.

4- MoH decision makers should improve the facilities and technology in MoH dental clinics ensuring the presence of up-to-date equipment.

5- Distribution of a questionnaire to patients annually to regularly assess patient satisfaction.

6- Involve patients in planning for these services by stakeholder analysis to study who will be affected by the program, what kind of people participate in program in terms of resources or interests, and authority for improvement. The process must include correct type and numbers of people, it must ensure people's respect, process must be reviewed and re-evaluated for improvement of services and the participating community must be aware of the purpose of interactions.

7- Add suggestions and complaints boxes in all MoH centers so that patients and visitors can express their opinions and perceptions about the provided healthcare services and provide their insights to further improve these services.

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## Appendix A

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### استبانة

ا- معلومات شخصية: ضع علامة √ في المربع الملائم.

أ 1 الجنس:  ذكر  أنثى

أ 2 العمر:  29-18  39-30  49-40  59-50  + 60

أ 3 الحالة الاجتماعية  أعزب | عزباء  متزوج |  مطلقة  أرمل |  
أرملة

أ 4 مكان السكن:  مدينة  مخيم  قرية

أ 5 الدراسة:  إبتدائي  ثانوي  كلية مجتمع  جامعة  لا دراسة

أ 6 المهنة  موظف حكومة  تاجر  متقاعد  طالب  لا  
عمل

عمل آخر (حدد)

أ 7 متى بدأت ترتاد هذه العيادة؟

قبل أقل من سنة  1-5 سنوات  5-10 سنوات  أكثر من 10

سنوات

ب . ضع علامة √ في المربع الذي يلائم خبرتك كمريض في هذه العيادة. إذا أردت أن تضيف تعليقاً أو أية معلومات أخرى، فاكتبها في الفراغ المخصص لذلك. المعلومات التي تزودنا بها ستستخدم لأغراض هذا البحث لا غير، وستبقى مكتومة. مع الشكر الجزيل لتعاونكم.

## سهولة الوصول إلى هذه العيادة | المرفق الصحي

ب 1 كيف تصل عادة إلى هذه العيادة؟

- بالسيارة الخاصة  بالمواصلات العامة (سيرفيس او باص)  بالتاكسي  مشياً

وسيلة أخرى (حدّد) \_\_\_\_\_

ملاحظات:

ب 2 موقع العيادة مناسب

- أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة

ملاحظات:

ب 3 ساعات العمل جيدة.

- أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة

ملاحظات:

ب 4 انتظرت فترة طويلة قبل رؤية الطبيب.

- أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة

ملاحظات:

ب 5 من الصعب الحصول على العلاج في اليوم ذاته.

- أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة

ملاحظات:

ب 6 هناك عدد كاف من أطباء الأسنان في هذه العيادة.

- أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة

ملاحظات:

ب 7 مساحة العيادة كافية.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

ب 8 غرفة الانتظار مريحة.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

ب 9 العيادة مزودة بأجهزة حديثة.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

الجودة في تقديم الخدمات العلاجية

ب 10 موظفة الاستقبال تقدم المساعدة للخدمات المطلوبة بشكل مهني.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

ب 11 يتعامل طبيب الأسنان مع مرضاه باحترام.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

ب 12 اخصائي العلاج التحفظي للأسنان يعالج المرضى باحترام

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

ب 13 يقدم طبيب الأسنان شرحاً لما يفعله.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لا أوافق بشدة  
ملاحظات:

---

ب 14 يقوم طبيب الأسنان بفحص كل الفم وجميع الأسنان و يسأل عن التاريخ المرضي الخاص بي.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

---

ب 15 يقوم (أو يبذل جهد ) اطباء الاسنان بتوعية المرضى او مساعدتهم للحد من مشاكل الاسنان

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

---

ب 16 استطاع طبيب الأسنان أن يعالج مشاكل الأسنان لدي بنجاح.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

---

ب 17 طبيب الأسنان دائماً في عجلة من أمره.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

---

ب 18 يقدم لي طبيب الأسنان معلومات مفيدة حول أحدث التقنيات والخدمات التي تقدمها العيادة.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

---

ب 19 من السهل الحصول على العلاج والمعلومات حول العلاج (نتائج العلاج، متابعة العلاج، الأدوية التعليمات بشأن العلاج) .

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

---

## معالجة الألم

ب 20 أتجنب عادة الذهاب إلى طبيب الأسنان لخبرتي السابقة في الألم.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة  
ملاحظات:

---

ب 21 الطبيب يراعي تخفيف الألم خلال العلاج.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة  
ملاحظات:

---

ب 22 اعتقد انه على طبيب الأسنان أن يبذل جهداً أكبر لتخفيف الألم.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة  
ملاحظات:

---

ب 23 طبيب الاسنان يعرض خيارات متعددة للعلاج.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة  
ملاحظات:

---

## التكلفة

ب 24 تكلفة العلاج عالية جداً بالنسبة لي علما اني مؤمن صحيا.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة  
ملاحظات:

---

ب 25 على طبيب الأسنان أن يقدم العلاج الذي يستطيع المريض أن يغطي تكلفته.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة  
ملاحظات:

---

## الرضا العام

ب 26 بشكل عام، أنا راضٍ عن خدمات رعاية الأسنان التي أحصل عليها في هذه العيادة.

أوافق بشدة  أوافق  غير متأكد  لا أوافق  لأوافق بشدة

ملاحظات:

ب 27 أوصي بهذا المرفق لأصدقائي أو أفراد عائلتي.

أوافق بشدة  أوافق  لا رأي  لا أوافق  لأوافق بشدة

ملاحظات:

ب28 عدد المرات التي حصلت فيها على علاج في هذه العيادة.

مرة واحدة  مرتين  ثلاث مرات  أكثر من ثلاث مرات

## QUESTIONNAIRE

**A. BIODATA: Please tick the option that's applicable.**

**A.1 GENDER:** - Female Male

**A.2 AGE:** -  18-29yrs  30-39yrs  40-49yrs  50-59yrs   
60yrs+

**A.3 MARRITAL STATUS:** - Single Married

**A.4 TOWN/DISTRICT:** -----

---

**A.5 EDUCATIONAL BACKGROUND:** -

- Primary
- Secondary
- College
- University
- None

**A.6 OCCUPATION:** -

- Civil Servant.
- Business/Trading.
- Pensioner/Retired.
- Student.
- . Not working
- . Others Please specify \_\_\_\_\_

**For how long have you been attending this clinic?**

<1yr  between 1-5yrs  5-10yrs  >10yrs

**B. Please check the response that most reflects your experience as a patient here and tick only one response. Space is provided for any additional comments you wish to make. Your response will be kept confidential at all times. Thank you for your cooperation.**

**ACCESS/CONVENIENCE/ FACILITY**

**B.1 you reached the clinic by:**

Car  public transportation  Walked  taxi  others Specify-----

Comments-----

**B.2 the dental clinic has a convenient location?**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.3 The opening hours are good.**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.4 I waited for a long time to see the dentist?**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.5 It is hard to get treated on the same day.**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.6 There is enough dentists here**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.7 There is enough space at the dental clinic?**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.8 The waiting area is comfortable.**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**B.9 The dentist's equipment is modern and up to date**

Strongly agree  Agree  Not sure  Disagree  Strongly disagree

Comments-----

**QUALITY (INTERPERSONAL/TECHNICAL/OUTCOME)**

**B10 The receptionist/assistant is helpful and professional.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B11 The dentist treats patients with respect.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B12 The dental operative treats patients with respect.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B13 The dentist explains the procedure to the patient.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B14 The dentist always examines my whole mouth and teeth and asks me about my medical history**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B15 The dentist should do prophylactic measures to keep people from having problems with their teeth.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B16 The dentist was able to relieve most of my dental problems.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B17 The dentist is always in a hurry.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B18 The dentist supplies me with information of new technologies and services they provide.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B19 It is easy to obtain follow-up information and care (treatment results, medications, care instructions)?**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**PAIN MANAGEMENT**

**B20 I avoid the dentist because of the pain experience.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B21 I am not concerned about pain during the treatment.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B22 The dentist should do more to manage my pain.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B23 The dentist usually offers a different treatment option.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**AFFORDABILITY**

**B24 The fees are too high at the clinic.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B25 The dentist should always offer me a treatment option I can afford.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

**GENERAL SATISFACTION**

**B26 Overall, I am happy with the dental care I received at this clinic.**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**B27 Would you recommend this facility and its staff to your family and friends?**

- Strongly agree    Agree    Not sure    Disagree    Strongly disagree

Comments-----

**No. of visits:-**

**B28 I received treatment at this clinic:**

- Once    Twice    Three times    More than three times

Appendix B

Consent form

State Of Palestine  
Ministry of Health - Ramallah  
Oral and dental Health Unit  
Tel-fax: 02-2417072

دولة فلسطين  
وزارة الصحة - رام الله  
وحدة صحة الفم والأسنان  
تفاس: 02-2417072

التاريخ: 2017/8/15  
الرقم: 229/66

عطوفة وكيل وزارة الصحة  
د. أسعد رملاوي المحترم

تحية طيبة وبعد،،،

أرفق لكم كتاب د. أحمد عودة والذي يطلب به الموافقة على  
تعيأة الاستبيان الخاص برسالة الماجستير الخاصة به في  
عيادات الأسنان بوزارة الصحة.

مع فائق الاحترام والتقدير،،،

الدكتورة ريم درهم

مع الموافقة

اللاداريات

اللاداريات

دولة فلسطين  
وزارة الصحة  
مديرية صحة الفم والأسنان  
وحدة صحة الفم والأسنان

دولة فلسطين - وزارة الصحة  
سكتب وشتميل وزارة الصحة  
وارد رقم: 120  
تاريخ: 2017/8/15