

ATTRIBUTES OF PATIENT SATISFACTION IN HOSPITALS  
A CASE STUDY AT AIN WAZEIN MEDICAL VILLAGE

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A Thesis  
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at Notre Dame University-Louaize

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science

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by

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## ABSTRACT

**Purpose** – The purpose of this paper is to explore the determinants of patient satisfaction in the healthcare sector, the links between its factors, and the impact of each factor on the overall satisfaction for its positive feedback on the workflow and progress of hospitals, despite the fact of the rising cost of health care and the high rates of out-of-pocket expenditure in Lebanon.

**Methodology**– A post-positivist philosophical position and a deductive reasoning approach were adopted through this research. This study deals with a case study of the attributes of patient satisfaction of AWMV population. This study is based on secondary data on surveys already found at AWMV system gathered quarterly. A mixed-method was implemented including a documentation analysis using the complaints filed at the hospital from the year 2007 till 2017, and a quantitative analysis using SPSS software for the patient satisfaction surveys fulfilled from year 2007 until the end of year 2017 comparing this data, witnessing the changes, linking between its factors and coming out with results and recommendations.

**Findings** –Due to the analysis conducted on the patient satisfaction survey fulfilled on the targeted sample in this paper, the impacts of the performance level of different departments appear clearly on the overall satisfaction level. However, each department contributes in a different percentage to the overall satisfaction. As well, when studying the claims presented, the results show that the nursing administration registered the highest percentage of complaints, followed by the services

administration and the medical administration consequently. While comparing the documentation analysis results with these of the quantitative analysis, there appears a positive relation between both claims and surveys.

**Research limitations/implications** – There are several limitations to this study. The recent change of the questionnaire at AWMV is the main limitation. As well, the data was aggregated quarterly; which leads to some missing and accurate data to be followed and analysis through the study.

Moreover, due to the insufficient data fulfilled with patients regarding which medical department they were admitted to, this study does serve as a recommendation for the whole hospital and not looking in-depth in the departments having the highest claims or negative response from patients.

However, the implication was in the importance of the assessment done on the old survey in an attempt to look at the new modified survey, being implemented in the hospital, if it is good or whether in need of more changes to be done further.

As for theoretical implication, this study is the first being conducted in Lebanon regarding the contributors to patient satisfaction. As managerial wise, the implication refers to the importance of studying the factors affecting patient satisfaction for corrective actions to be done on the new survey, if needed, as well as to know where the efforts should be allocated for better service and higher patient satisfaction level.

**Originality/value** – Due to the evidence that higher levels of patient satisfaction leads to higher loyalty level as well as better service quality, patient satisfaction is serving recently as a key factor in judging the hospital's performance. Thus, patient

satisfaction became a core subject to be researched in the healthcare sector in addition to its importance for both governmental and ISO accreditations. A limited number of studies have evaluated the impact of the attributes of patient satisfaction on the overall satisfaction in the Lebanese healthcare sector.

**Keywords** – Perceived service quality- health care sector-attributes of patient satisfaction-performance-determinants of patient Satisfaction-Ain Wa Zein Medical Village

## 1. CHAPTER 1 – INTRODUCTION

---

### **General Background**

In the developing world with a competitive environment, all companies are facing essential business challenges for survival and success where service quality became a core subject to be researched (Zaim, Bayyurt, Zaim, 2010).

Moreover, due to the rising population, the continuous improvement became a must in each sector to maintain a competitive advantage in a competitive market. Thus, the customer satisfaction and service quality have become central issues to be researched by academicians and scholars (Javed, Ilyas, 2018).

Regarding healthcare sector, all hospitals offer similar services but with different levels of quality where all hospitals have the aim to compete through outstanding service quality which has a direct relation to the patient's satisfaction, loyalty and hospital choice preference and thus attracting new patient (Shabbir, Malik, Malik, 2016).

The main mission of hospitals is to meet the needs of their patients with the quality care expected. Quality is a critical issue for patients. It became a challenge among hospitals which would lead not only to increasing referrals and reputation but also profitability and market share as well as for cost containment. (Izadi, Jahani, Rafiei, Masoud, Vali, 2017)

However, most providers fail in the challenge of delivering and measuring value in the healthcare sector. They watch over measuring the direct factors and not what matters for outcomes being too narrow or too broad. As well, the current organizational structures share in the situation of not holding joint responsibilities for

the outcomes from the whole team, including the physicians working as separate entities. (Porter, 2010)

Porter stated that having shared goals by stakeholders is a base for performance improvement and accountability. However, the progress in the health care sector is slow. It is due to the presence of hybrid and conflicting goals and interests including profitability, cost containment, quality, health services, safety, satisfaction, patient-centeredness, and accessibility; involving several units and numerous interventions combining and uniting their efforts over the full cycle of care and in turn achieving a service of value; Value that is defined not by the health outcomes achieved, fulfilling a set of patients' needs relative to dollar-cost demonstrated over time and manifested in the long term outcomes including sustainable recovery. (Porter, 2010)

### **Need for the Study**

Despite the competitive environment we are living in, public awareness has increased leading to more efforts from the companies to achieve higher customer satisfaction in an attempt to gain the loyalty of its customers (Shabbir, Malik, Malik, 2016).

Customer satisfaction is the essential factor in evaluating the quality of the services provided. As for the healthcare sector, the patients became aware nowadays of the services offered to them and their quality (Gupta, Rokade, 2016).

Tension and disturbance might occur in the relation between the patients and the health professionals that would affect not only the quality of communication between these two parties but also the whole healthcare process (Souliotis, Zafiropoulou, Bizas, Saridi, 2016). Thus, enhancing the environment has been used to improve the

service quality for its effect on the patients since patients feel being cared for professionally if feeling comfortable and welcomed (Hunt, 2010).

On the other hand, evidence is growing on the impact of professional teams in increasing the patients' satisfaction and reducing the hospitalization complications and delay in an attempt from the hospitals to put clear strategies that aim to serve the right patients at the right time by the right professionals (Takiguchi, Yatomi, Inoue, 2017)

Thus, today, it has been a necessity to understand what the factors that affect patient satisfaction are, and this is the basic need for the study.

### **Purpose of the Study**

Being an employee at Ain Wazein Medical Village (AWMV) for more than twelve years working in different sections of the Financial Department makes me aware of the importance of customer satisfaction and its impact on the hospital, financially and socially.

This research attempts to explore the different factors of patient satisfaction, in a case study at Ain Wa Zein Medical Village, taking into account the various departments and assess their impact on the overall satisfaction; in an attempt to work on for development of the quality of services offered through implementing corrective actions that stabilizes the knowledge of quality, risk and safety and thus betterment in the customer service; since at a certain level of dissatisfaction, the patients will eventually skip to other alternatives (Mbawuni and Nimako, 2016).

## **Brief Overview of all the Chapters**

In this chapter, we have provided a general background about the in-hospital and the importance of service quality in the healthcare sector. Moreover, the need for the study and the purpose were illustrated.

In the following chapter, chapter 2, major studies about the topic will be reviewed and analyzed. An overview of the previous literature will be included around quality in the healthcare sector and its importance reflected in the patient satisfaction level. Then, the models, frameworks, and determinants of patient satisfaction will be explored and demonstrated. A section will follow discussing the attributes of patient satisfaction and the impact of various departments' work on the overall satisfaction.

Chapter 3 will deal with the methodology used in this study to generate hypotheses and validate or reject them based on the sample we have. The methodology of this paper will be based on the secondary data from the surveys already presented at AWMV system gathered quarterly for the past ten years 2007-2017. This chapter will start with the philosophical position and the reasoning approach implemented throughout this study. Then, the population will be introduced and specified with sampling procedures, followed by the generated hypotheses.

In chapter 4, the analysis frameworks will be presented. All the results and findings of this study will be included in this chapter. A documentation analysis will be illustrated for the complaints fulfilled. Followed is a section of the quantitative analysis regarding the patient satisfaction surveys already being fulfilled. The data will be analyzed deeply, reliability analysis will be conducted, and then an inferential analysis will be done not only to study the variations but also to the relations between variables and constructs.



The last chapter in this study, chapter 5 will include the main finding compared with the analysis done in chapter 4 and compare them to the literature review of chapter 2 as well as comparing the documentation analysis findings with that of the quantitative analysis.

Then the validity and limitations of the research will be indicated

Finally, we will propose recommendations for further studies and research on this topic in the healthcare sector in Lebanon.

## 2. CHAPTER 2 – LITERATURE REVIEW

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In the competitive world where we are living and the high awareness of customers, healthcare providers are trying to reach success through creating, developing, and preserving a unique set of competitive advantages (Javed & Ilyas, 2018). Hospitals are trying to generate a perfect image in their patients' minds, which would differentiate them from their competitors (Øvretveit, 1992; [Izadi](#), [Jahani](#), [Rafiei](#), [Masoud](#) & [Vali](#), 2017). However, this image requires maintaining a very good level of satisfaction amongst its patients (Mosadeghrad, 2013). This concept applies to both public and private healthcare organizations ([Shabbir](#) & [Malik](#), 2016).

This chapter includes a review of the quality in healthcare sector, patient satisfaction models and determinants (Kaplan and Norton and EGIPPS), in addition to the impact of several departments' work on the overall satisfaction.

### 2.1 Quality in HealthCare Sector

In the developing world with a competitive environment, all companies are facing essential business challenges for survival and success. This made quality a core subject to be researched (Zaim, Bayyurt, Zaim, 2010), and the continuous improvement a must in each sector to maintain a competitive advantage (Javed & Ilyas, 2018). Thus, companies always work on improving programs related to quality for its effect on the cost, performance, and long term relationships (Mosadeghrad, 2013).

The healthcare sector is different and unique in the performance measurement. It exceeds profits and costs measuring to extend to further concerns as longevity

increases, survival rate increase, pain relief, recovery time decrease, and an increase in the quality of life. (Kim, Gaukler & Won Lee, 2016).

The healthcare performance is directly influenced by how are the services planned and delivered (Correial, 2017). Porter stated that having shared goals by stakeholders is a base for performance improvement and accountability. However, the progress in the health care sector is slow. It is due to the presence of hybrid and conflicting goals and interests including profitability, cost containment, quality, health services, safety, satisfaction, patient-centeredness, and accessibility; involving several units and numerous interventions combining and uniting their efforts over the full cycle of care and in turn achieving a service of value. (Porter, 2010)

Moreover, most providers fail in the challenge of delivering and measuring value in the healthcare sector. They watch over measuring the direct factors and not what matters for outcomes being too narrow or too broad. They measure the billed and related direct costs of the billing department rather than that of the whole patient care cycle where the value is determined. As well, the current organizational structures share in the situation of not holding joint responsibilities for the outcomes from the whole team; including the physicians working as separate entities. (Porter, 2010)

Quality has been described in several ways (Campbell et al., 2000). It has been defined as value, excellence, conformance to specifications and requirements, fitness for use, meeting and or exceeding customers' expectations, and producing products with a predictable degree of uniformity at low costs every time (Mosadeghrad, 2013).

Quality has existed since the healthcare existed. It is getting more importance at the heart of discussion about this sector searching for what quality is and how we can

measure it in the direction of making quality the organizing principle (Lee, Vlaev, King, Mayer, Darzi & Dolan, 2013).

The main objectives of the healthcare sector to be achieved became providing high-quality services and restraining the public expenditure (Paltriccia & Tiacci, 2016); a challenge among hospitals which would lead not only to increasing referrals and reputation but also profitability and market share. (Izadi, Jahani, Rafiei, Masoud & Vali, 2017)

Health service quality is much more difficult to be defined, counted, and measured. It is due to its different characteristics as intangibility, subjectivity, and heterogeneity (Joss and Kogan, 1995; Ladhari, 2009; McLaughlin and Kaluzny, 2006 & Naveh and Stern, 2005). It has been impossible to unify the definition of the healthcare service quality for the difficulty of reproducing the same service twice because of the factors that vary including the physicians and nurses presenting this service, the experience, consumers themselves and much more. (Mosadeghrad, 2013)

Quality care, as defined by Øvretveit (1992), is the “Provision of care that exceeds patient expectations and achieves the highest possible clinical outcomes with the resources available.” However, service quality is the overall perceived feedback by patients of the relative inferiority/superiority of the organization and how fine the service performed fulfill or go beyond expectations on a consistent base comparing the service expectations with what noticed to have been received (Grönroos, 1984; Parasuraman et al., 1985; Zeithaml, 1988; Bitner and Hubbert, 1994 & Akter et al., 2013).

The understanding of service quality nowadays is fundamental since it is in practice to ensure the company's continuity and increase its feasibility to gain the best health outcomes (Akter et al., 2013). High service quality doesn't only count for the essential services such as diagnosis and equipment but also the supplementary services such as payment processing and discharge process ( Bakan, 2014). It has been recognized as the central concept for the service provider due to its positive influence on the main success factors of service business such as trust, confidence, loyalty and customer satisfaction (Sumaedi, Yarmen & Bakti, 2016) in addition to other reasons like customers' awareness about the perceived healthcare quality services (Amin and Nasharuddin, 2013 & Chang et al., 2013) on one hand and the rapid growth of internet and social media effect on the negative word of mouth of poor service quality (Chang et al., 2013) on the other hand.

There are large proves that service quality is a leading significant dimension in the healthcare sector superiority that affects behavioral intentions as increasing the purchasing volume, perceived value, loyalty, customer preferences and organizational profitability (Donabedian, 1966; Baker and Crompton, 2000).

Service quality became a primary strategic force (Shabbir & Malik, 2016) compelling managers to measure both the financial and non financial performance to enhance their operations and distinct themselves providing a high-quality standard services to the patients ( Kondasani & Panda, 2015) The managers had to look differently in the way managing and leading their hospitals recognizing the patient's experience at the heart of healthcare leadership (Wolf, 2017). Customer satisfaction showed up to be the most important factor in evaluating the quality of the services provided. (Gupta & Rokade, 2016). As well, the service quality and customer satisfaction became

principle marketing preferences ((Ryu et al., 2012) and new strategies showed up stressing on the patient experience including safety, quality, service, and cost. (Wolf, 2017)

Patient perception is considered the main determinant to evaluate the service quality in the healthcare sector. (Cronin & Taylor, 1992)

Patient satisfaction based on several dimensions such as responsiveness, core services, supportive services, reliability and competence...in addition to other determinants as admission and discharge process, hotel and technical services and nursing care (Naidu, 2009).

## **2.2 Patient Satisfaction: Models Demonstrated and Determinants**

Patient satisfaction is an integral part of a healthcare organization's mission and culture (Cardello, 2001). Several models were formulated in researches through the years without reaching a universal one due to the complex nature of patient satisfaction.

The determinants of quality care extend from interpersonal, technical, environmental, and other components.

### **2.2.1 Patient Satisfaction**

As argued by Donabedian (2005), patient Satisfaction could be considered as the basic element of quality evaluation. Within his perspective, researchers in this field are recommended to use satisfaction questionnaires as an essential complement to administrative measures (Pines, 2008). Donabedian has provided a conceptual model of the healthcare quality. This model is built upon the relationship between three

categories of variables: care structures, processes, and patient outcomes (Donabedian, 2005).

The care structures define the healthcare delivery context (hospitals' facilities, tools, and equipment). The process describes patients' and providers' relationships and transactions. And lastly, outcomes denote the healthcare impact on the health status of patients and beneficiaries (Lawson, 2012).

Patient satisfaction is a multidimensional construct researchers have conceptualized in many ways (Nelson, 1990; Brand, Cronin, & Routledge, 1997; Keith, 1998; Bryant, Kent, Lindenberger, Screiber, Canright, & Cole, et al. 1998). Empirical research on patient satisfaction has demonstrated a lack of an accepted conceptual or theoretical model, a lack of standardized methods to assess patient satisfaction, and a continuing need for consensus within the medical profession on the role patient satisfaction should play in healthcare (Arahony & Strasser, 1993).

Due to the nature of the healthcare system's performance being multidimensional leading to conceptual confusion, it is reflected by a scarcity of models that comprehensively analyze health system performance (Marchal, 2014).

Quality is considered an important part of the hospitals' performance, and it was a part of many frameworks trying to develop the subject of hospital performance such as Kaplan and Norton framework and The EGIPPS Framework (Ibrahim, 2001).

#### **I. The Kaplan and Norton Framework “Balanced Scorecard”**

- The Balanced Scorecard (BSC) framework is a performance measurement model proposed by Kaplan and Norton in their landmark article in the Harvard Business Review (Kaplan & Norton, 1992).

- Examination of The Balanced Scorecard BSC framework, the hospital's financial standing, and the metrics for both patient and employee satisfaction highlighted the importance of management transparency, leadership support, appropriate metric selection, and the strength of the BSC under turbulent circumstances (Kazandjian, 2003).
- The BSC emerged in response to criticisms of traditional budgeting and performance assessment, primarily in response to the need for improved budget methodologies addressed through Activity-Based Costing also developed by Kaplan, and the shortfall of parameters utilized to manage activities other than financial activities. (Johnsson & Kaplan,1987). Furthermore, organizations should be handled through other vital parameters such as capacity utilization and lead-time to complement the financial picture (Johnsson & Kaplan, 1987). When fully deployed, the BSC transforms strategic planning from an academic exercise into the nerve center of an enterprise (Arveson, 2003).
- The Balanced Scorecard (BSC) framework offers a double loop learning that arises from following and changing, if necessary, the strategic vision where the continual adjustment of strategy is needed in order to accomplish permanent change in a business environment (Argyris, 1991).

The BSC framework is composed of four quadrants:

- Financial indicators

Here, the business unit leader should have the answer to the view of their performance by the owner.

- Customer perspective

Here, managers must know if their organization is satisfying customers' needs and how the customers see them.



- Internal business functions

Here, managers need to focus on internal operations to use them and what other measures required in meeting customers' needs.

- Learning and growth of the organization (Kaplan & Norton, 1996).

Here, the business unit leader must ask how we can continue to create value through innovation, improvement, and learning.

By answering these questions, each quadrant can be aligned with appropriate metrics (Kaplan & Norton, 1996).

Although Kaplan and Norton have recommended these four quadrants for the BSC framework, they have asserted that the BSC framework is flexible and should be modified to suit the specific needs of a business unit (Kaplan & Norton, 1996).

Forgione was the first in the literature to link the BSC with health management as an approach to combining healthcare financial and quality measures (Forgione, 1997). Forgione (1997) reported the implementation of capitated payment systems and diagnostic related group reimbursement places powerful incentives in opposition to healthcare quality. Additionally, just as financial disclosures are essential for the efficient allocation of capital resources, quality disclosures are crucial for the efficient allocation of healthcare resources (Pink et al, 2001). Since then, the BSC has been implemented as part of a growing trend within the healthcare industry in a variety of healthcare units including emergency rooms (Huang, Chen, Yang, Chang & Lee, 2004), psychiatric centers (Santiago, 1999), intensive care units (Meliones, 2000), women's services (Jones & Filip, 2000), burn centers (Wachtel, Hartford & Hughes, 1999), long term care facilities (Macdonald, 1998) and human resources (Fottler,

Erickson, & Rivers, 2006). Some hospital systems have developed a BSC framework to encompass their entire enterprise (Pink et al., 2001; Yap, Siu, Baker, & Brown, 2005).

Depending on the focus of the survey instrument, patient satisfaction scores may reflect efficiency of care, communication with healthcare professionals, treatment outcome, pain management, or state of the facility. (Arahony & Strasser, 1993).

Generating and implementing a “Balanced Scorecard System” has a noticeable contribution in managing any healthcare facility efficiently in such a way that all clients are satisfied (Marr, 2010).

Providing respectable care for patients is a complicated process. (Kollberg, 2011) When a healthcare facility set its goals, they are not necessarily attainable, especially without looking at the related sections “Customer service, Internal Processes, Financial, and other ones detailed out in the Balanced Scorecard” (Kollberg, 2011). Every section is considered completing the other, and every section enables the healthcare organizations attain and surpass their strategic objectives (Chang, 2008).

## **II. The EGIPPS Framework**

The EGIPPS framework was applied mainly in OECD countries. The framework presents some challenges (Touati, 2015). First, going from a traditional assessment of two functions that are assumed to be linearly connected (service production to goal attainment) to four functions and their linkages complicate the assessment of performance (Mauro, 2014); This forces evaluators to assess two additional and largely intangible issues (Bravi, 2013):

- (1) Values, responsiveness and organizational culture, and
- (2) Alignments.

This additional difficulty may explain why relatively few authors use the full framework for actual research (Kruk, 2008). One of the major applications of the framework is the development of the performance assessment tool for quality improvement in hospitals (PATH) by Veillard and colleagues (Veillard, 2005). The six dimensions of hospital performance that were withheld are:

- Clinical effectiveness,
- Safety,
- Patient centeredness,
- Production efficiency,
- Staff orientation, and
- Responsive governance.

They express a natural focus on the Service Production function of the EGIPPS framework. Also, Bittencourt and Hortale, who applied the framework to the analysis of waiting time and overcrowding of hospitals, mainly focused on the technical effectiveness of service production (Bittencourt, 2009).

This sparse use of the framework to assess Healthcare Organizations' performance in its full spectrum seems to indicate that the assessment of the functions, let alone of the alignments between the functions, can be quite difficult (Olmen, 2012). The analysis of 5 major accreditation manuals by Smits on the basis of the EGIPPS framework's features (Smits, 2008) similarly found that just one of them – the Australian guide – focused on balancing alignments. This difficulty is, of course, an issue with all frameworks that embrace a definition of performance that goes beyond the production of services (Olmen, 2012).

Second, the EGIPPS framework may easily focus the analyst's attention to organizational functions and structural alignments, whereas much of the problems underlying organizational performance are related to social interactions and relations where the authors acknowledge the tensions that are likely to arise as a consequence of conflicting interests and the difficulties in arbitrating between conflicting values (Bittencourt, 2009). They refer to Habermas' constructive mediation (Habermas, 1984) as an approach to establishing rules for participation and priority setting, but their definition of the organizational functions does little to acknowledge the social complexity of Healthcare Organizations and to help managers make sense of this complexity.

The third modification is an attempt to upgrade the EGIPPS framework to better deal with complexity. The advantage of the EGIPPS framework, much the same as the competing values framework of Quinn and Rohrbaugh did (Rohrbaugh, 1983), was to integrate all main schools of management. Since then, however, complexity theory has entered much more strongly into organizational and management theory. Interesting insights were developed in the domain of decision-making (Stacey, 2000), strategic management (Kurtz, 2003) and leadership (Marion, 2001). One key aspect of complexity theory is the central role of human agency and relations in emergence of change within organizations. The alignments in the EGIPPS framework represent the interaction between the functions and allude to the tensions that often arise as a consequence (Touati, 2015). However, adopting a functionalist approach, Sicotte and colleagues provide little explanation on how these tensions come about and little guidance to the analysis of these tensions. This modification is, therefore, an analytical strategy to focus attention on the social dynamics within the HO and in its relation with the environment, which accounts for the dynamic interactions within and

between functions and the resulting emergence of change, feedback loops and unintended effects (Dubois, 2013). As such, the MPF becomes a heuristic that can help in making sense of complex organizational behavior (Touati, 2015).

### **2.2.2 The Determinants of Patient Satisfaction**

Many researchers have differentiated between the process quality concept and the technical quality concept within the context of “patient satisfaction” (Goldstein, 2004). Since the “Technical Quality” is directly related to (WHAT) the patient gets, the process is related to the quality of (HOW) the patient receives the healthcare services “the delivery process.” Marley, Collier, and Goldstein (2004) argued the fact that both technical and process qualities are significant to patients.

Schoenfelder et al. (2011) argued that the patient characteristics are determinants of satisfaction, whereas interpersonal manner, technical quality, accessibility, physical environment, and availability of resources are components of satisfaction.

Poorly educated patients usually show higher satisfaction levels than others with higher education level (Zineldin, 2006). In Nordbyhagen, Norway, a cross-sectional survey conducted on patients’ experiences with hospital care found that less-educated patients tended to rate the hospital service more positively than others. Also, in Boston, USA Hall et al. concluded after meta-analysis that greater patient satisfaction is associated with less education (Veenstra, 2003).

Other related researches have assured that elderly patients report are highly satisfied more than the younger ones (Quintana, 2006). Similarly, recent surveys exposed that younger patients are considerably less satisfied with a reception of the staff, food quality, taste, and temperature, giving brochure for patient with a special diet upon

discharge, time of serving meals, and guiding directives by information desk compared to older patients (Smith, 2016).

Many researches about the gender effect on patient satisfaction are paradoxical: some presented that men tend towards expressing higher satisfaction levels than women, whereas other studies did not show that result (Quintana, 2006).

Regardless of the country and culture, waiting time shows to play a role in the outcomes of patient satisfaction. (Yildirim et al., 2005; Baldri and Attia, 2008). With so many choices available, most patients will not stick to a doctor who has no respect for their time. Prakash, Bhanu (2010) while continuity of care is associated with higher patient satisfaction, which favors family practice physicians, Russell, Johnson and White, 2015)

The most commonly known acronym used to describe the dimensions of quality of care is the STEEEP acronym (Safety, Timeliness, Effectiveness, Efficiency, Equity and Person Centeredness) (Beattie, Murphy, Atherton and Lauder, 2015)

However, the core elements effecting patient satisfaction include:

- ✓ Communication: Effective communication, through listening to patients, explaining clearly, understanding their requests, and sympathizing with them, improve the quality of care and increase patient satisfaction. (Ghosh, 2014; Masei Eva K, et al. 2016; Toma, et al. 2017; Polonsky, 2017;)
- ✓ Decision-making: Patient involvement in the treatment decision through sharing knowledge and accepting doctors' instructions regarding his/her health would reveal to better healthcare outcomes. (Thiedke 2007; Victoor, Aafke, et al. 2012)
- ✓ Time spent: The interval of waiting times by patients to get their service shares in improving patient satisfaction. (Lankarani, Kamran, et al., 2016)

- ✓ Clinical team: it has been noticed that the patient does concern not only about the clinician himself but also the team working with him that increases the confidence of the patients as well as the satisfaction. (Ghosh, 2014)
- ✓ Continuity of care: having the same healthcare provider in every step in the journey of care increase the patient satisfaction. (Thiedke 2007; Victoor, Aafke, et al. 2012)
- ✓ Dignity: offering the healthcare under condition of promoting and supporting the self respect of the patient leads to greater satisfaction. (Johnston, Bridget, et al. 2017).

In addition, Sofaer and Firminger (2005) have recognized, within this context, seven classes or determinants that are vital to the patient:

- **Patient-centered care**

There is no universally agreed definition of Patient-Centered Care; however, it is embedded within the paradigm of holism that views individuals as a biopsychosocial and physiological whole (Ekman et al., 2012). Essentially, the patient is the sole determinant of patient-centeredness. (Stewart, 2001).

The Picker Institute (1993)) brought PCC to the forefront with its research that emphasized the need to respect patient's preferences and values, psycho-physiological comfort, the importance of communication and the need to provide support and coordinated care that is inclusive of the patient and their family. Patient priorities for care include the following characteristics: respect, courtesy, competence, efficiency, patient involvement in decision making, time for care, availability/accessibility, information, exploring patient's needs, and communication (Jennings, Heiner, Loan,

Hemman, & Swanson, 2005; Wanzer, Booth-Butterfield, Er Gruber, 2004; Wensing, Jung, Mainz, Olesen, & Grol, 1998).

Measuring PCC has generally been conducted with patient questionnaires reporting the patient's perception of PCC practices or patient satisfaction with the interaction (Dubois, 2013). This method was used in the National Healthcare Quality Report, which asked patients to respond to survey questions related to (a) the provider's listening skills, (b) the provider's explanation skills, (c) the provider's respect to what the patient has to say, and (d) the provider's spending enough time with the patient (AHRQ, 2005). The other method generally used to determine the presence of patient-centeredness is analysis of taped patient-provider interactions. Focusing on patient-provider communication patterns alone has not correlated with health outcomes or with determining the presence of PCC independent of patient perception (Epstein, 2000; Howie, Heaney, & Maxwell, 2004).

However, Franks et al. (2005) also point out the limitations of measuring effectiveness based on patient satisfaction because of patient confounding.

- **Access**

Satisfaction with access to essential healthcare is one but a significant part of patient satisfaction (Tchouaket, 2012). This paper aimed at depicting patient satisfaction with access to inter-professional family rehearses and looking at indicators of being not exactly happy with the access (Kruk, 2008).

Patient satisfaction with healthcare is an important outcome since it can impact compliance with medical treatment, the clinician-patient relationship, and the use of health services (Lamontagne, 2010). While patient satisfaction with healthcare is determined by a complex interaction of factors, it is closely related to quality of care, and it is used extensively as one measure of healthcare performance. Reasonable



access is essential for care to be responsive and to provide continuity (Lamontagne, 2010).

Access to the social insurance framework practice is seen as an attractive critical segment of essential consideration from the points of view of patients, human services providers, and payers (Kruk, 2008). Patient satisfaction with access to essential consideration might be identified with the convenience of getting booked consideration, dire unscheduled consideration, and the capacity to see the supplier of decision and hold up times while at the workplace (Marchal, 2010). For instance, patients who see their very own family doctor for an earnest medical issue are happier with how their concern is taken care of than patients who utilize different administrations and satisfaction in essential consideration is decreased with more prolonged hold-up times in the workplace and shorter counsel with the doctor (Lamontagne, 2010).

The move-in essential consideration to models that help inter-professional groups and enhanced access can be required to affect patient satisfaction (Marchal, 2011). Despite the fact that get to is a need in essential consideration change and endeavors have been made to enhance this, we have little data on patient satisfaction with different parts of access in the family practice in these new models or on patient's impression of what is sensible access to their family doctor and the training (Lamontagne, 2010).

Patients' satisfaction with access is likely affected by various desires for auspiciousness in multiple settings. Patients feel that the rational number of days to sit tight for an arrangement is four days ([www.medicare.gov](http://www.medicare.gov), 2015); in any case, there ought to be recognize pressing and non-critical arrangements. For example, for authority arrangements in Canada, the middle sit tight time for an arrangement was

accounted for in a patient study to be a month, and 41% sat tight 1– 3 months for an arrangement. In other examination, 70% of patients announced concurrence with having the capacity to get an arrangement in our facilities in 1– 2 days ([www.cms.gov/Research-StatisticsData-and-Systems/Research/CAHPS/ed.html](http://www.cms.gov/Research-StatisticsData-and-Systems/Research/CAHPS/ed.html), 2015).

It seems to be that there is a little correlation between satisfaction and socio-demographic factors (Zuidgeest, 2009). The result that respondents who were working at a job were less satisfied with being able to obtain an appointment within a reasonable time may reflect the age group, busy lifestyle, and the desire for convenience (Zuidgeest, 2009). Respondents with fair or poor self-reported health were less satisfied with being able to see a doctor in 1–2 days, which might be related to the perceived urgency of their problem. Previous studies using the general practice assessment survey have found that some ethnic minorities have higher expectations and lower satisfaction, and older patients have lower expectations and higher satisfaction (Tanmaru, 2010).

The expense of consideration has additionally been observed to be an explanation behind dissatisfaction with access to mind (Beatty, 2003). The topographical circulation of Financial Determinants' workplaces is pretty much homogenous the nation over; however, most rheumatologists work in two more significant focuses (Beatty, 2003).

As a rule, the usual extent of direct expenses of patient's salary was somewhat low, and the aggregate sum of expenditures did not influence the satisfaction with access. (Donabedian, 1992) In any case, patients who utilized restoration benefits additionally spent more cash for co-installment, which negatively affected satisfaction with access (Donabedian, 1992). Since 2002, in any case, the measure of restoration benefits

ultimately paid for by medical coverage has been relatively constrained (Koppel, 2008). Also, the co-installment for the recovery can be very high. The negative effect of higher costs on satisfaction with access, and also the low extent of patients who got the restoration, alludes to money related hindrances that confine access to recovery care (Koppel, 2008).

- **Courtesy and emotional support**

Healthcare providers face patients' emotional disturbances, including anger, grief, and loneliness on a daily basis. In all cases, healthcare professionals should exhibit genuine empathy and understanding for those needy patients. This type of empathy comprises feeling another's emotions oneself as an 'emotional resonance,' rather than just correctly acknowledging them (Halpern, 2003).

Patient satisfaction is of most extreme significance related to medicinal services benefits and is typically utilized as a marker of the nursing care quality in the clinical setting (Lake, 2016). All patients ought to be assessed, considering their physiological and passionate prerequisites (Aiken LH, 2013).

As per Goleman, enthusiastic knowledge (EI) is the person's competency with which he/she can comprehend his/her feelings, he/she can demonstrate sympathy toward others' feelings, and he/she can sort out his/her emotions so that he/she can advance his/her life (Adams, 2014)

It was expressed that raising the nature of the nursing rehearses in human services framework was conceivable with the assistance of the attendants' EI abilities, for example, viable correspondence first with the patients and afterward with their associates (Tekin, 2015); monitoring their very own sentiments; knowing and understanding their patients, utilizing positive adapting aptitudes; and having a

positive disposition. It was expressed that those components helped in meeting the necessities of patients and in lessening the nerves of medical caretakers, and it likewise expanded the activity satisfaction of attendants, and the attendants thus utilized their vitality to build the nature of patient consideration (Atilla, 2013).

At the point when the human services workforce perceive EI as the backbone of achievement in close to home and expert life, patient satisfaction is relied upon to expand (Berglund, 2015).

Patient– nurture joint effort significantly underlies on patient satisfaction. The help that the patient gets from the medical attendant, the regard that the attendant shows to the patient, the positive practices of the attendant toward the patient, the unmistakable answers of the medical attendant to take care of the patient's issues, and the openness of the medical attendant are the primary considerations for patient satisfaction (Tuncer, 2016).

Over time, quality of care is being concerned with continuity of care. It is a process involving both patients and physician-led care team in ongoing healthcare management toward reducing fragmentation of care toward a shared goal of improved higher quality and cost-effective medical care (Edwards, 2008).

Continuity of care is an essential goal through a patient-centered medical home. It is a long patient-physician relationship based on knowledge of the physician of the patients' history. This continuity of care helps physicians gain their patients' confidence enabling them to be more effective patient supporters (Donaldson, 2001). As well, this care will evolve the family physicians' role as cost-effective coordinator in the patients' services delivered through earlier recognition of possible problems and

complications from their experience and decisions being based from a whole-person perspective. (Brown, Stainer, Stewart, Clacy & Parker, 2008).

- **Communication and information**

Research proof shows that there are solid positive relationship between a medicinal services colleague's relational abilities and a patient's ability to finish therapeutic suggestions, self-deal with an interminable restorative condition, and receive preventive wellbeing practices (Thiedke, 2007). Studies led amid the previous three decades demonstrate that the clinician's capacity to clarify, tune in and relate profoundly affect natural and utilitarian wellbeing results and also patient satisfaction and experience of consideration (Asnani, 2009).

Patients' view of the nature of the medicinal services they got is exceedingly subject to the nature of their cooperations with their social insurance clinician and group (Makaryus, 2005). There is an abundance of research information that bolsters the advantages of viable correspondence and wellbeing results for patients and social insurance groups. The association that a patient feels with his or her clinician can, at last, enhance their wellbeing intervened through cooperation in their consideration, adherence to treatment, and patient self-administration ([www. healthcarecomm.org](http://www.healthcarecomm.org), 2016).

However, it is evaluated that 33% of grown-ups with perpetual ailments underused their professionally prescribed medicine because of cost concerns; yet they neglect to impart this data to their doctor (Asnani, 2009). Another investigation discovered that not precisely 50% of hospitalized patients could distinguish their determinations or the names of their medication(s) at release, a sign of insufficient correspondence with their doctors.

The Institute of Medicine (IOM) Report on Health Professions and Training has recognized that specialists and other wellbeing experts need sufficient preparing in giving excellent human services to patients (Thiedke, 2007). The IOM called, upon instructors and authorizing associations, to fortify wellbeing proficient by preparing necessities in the field of conveyance of patient-focused consideration. The patient-focused consideration show underscores the basic highlights of human services correspondence which depends intensely on center relational abilities, for example, open-finished request, intelligent tuning in and sympathy, as an approach to react to the novel needs, qualities and inclination of individual patients (Lein, 2007).

- **Technical quality**

The delivery of healthcare depends on individual providers, coordination within teams, and the structure of the work setting. It is mandatory to analyze the amount of variation in technical quality and patient satisfaction accounted for at the patient, provider, team, and medical center level (Marchal, 2011).

Satisfaction is associated with technical quality of care. However, profiling quality of care with satisfaction will likely require large samples and case-mix adjustment, which may be more difficult for plans or provider groups to implement than measuring technical indicators (Lamontagne, 2010). More importantly, satisfaction is not the same as technical quality, and our results suggest that at this time they cannot be made to approach each other closely enough to eliminate either (Dubois, 2013).

Measures of patient satisfaction with healthcare are widely used by insurers, providers, and researchers due to their intrinsic value as measures of consumer preference and their relative ease of measurement. Such surveys may be used to evaluate healthcare plans and providers (Crofton, Lubalin, and Darby 1999).

Satisfaction indices are also used for a variety of other purposes, including assessment of quality of healthcare and quality improvement (Cleary and McNeil 1988). However, given the widespread use of satisfaction surveys, surprisingly little work has been done to investigate the relationship between subjective patient satisfaction and objective measures of quality of care (Cleary and McNeil 1988). In particular, the possibility of treatment selection bias (McClellan and Newhouse 2000) in studies of the quality–satisfaction relationship has not been explored.

The definitions of quality of care and patient satisfaction have varied across past studies, and have sometimes been used interchangeably. In this paper, we follow the definitions proposed by Donabedian (1980). He distinguishes three components of quality:

- (1) Technical quality of care,
- (2) Interpersonal quality, and
- (3) Amenities.

Technical quality can be defined as the clinical or disease-specific facets of care, which deals with what patients receive according to what is recognized to be effective, and largely reflects issues related to the healthcare providers (Tabrizi, 2010).

Technical quality varies from case to another; it demonstrates how well health systems deal with the specific condition. However, Technical Quality has two main dimensions: the appropriateness of the services provided and the service provider's skill (Blumenthal, 1996).

As mentioned before, Donabedian has suggested a valuable systems-based framework of structure, process, and outcome to measure quality of healthcare; according to this

framework, structure refer to input and service delivery environment, process expresses actual care delivery and content of care, and outcome represent interaction between customer and a healthcare (Donabedian, 1980).

Measuring quality and performance of healthcare providers is an important factor for purchasers and quality improvement efforts related to increasing physicians' responsibility, accountability, and improving quality of delivered care. On the other hand, there are many models to measure technical quality in healthcare and each has some advantages and disadvantages. Therefore, the selected model to measure Technical Quality should provide valid, reliable, inexpensive, applicable, and useful to study purpose.

The Technical Quality concept assures that poor quality could be occurred in three forms: overuse, i.e., and provided more than standard, Underuse, i.e., not provided according to standards and misused provided inappropriate care (Brook, 1996). In contrast, the healthcare process can be characterized in three situations; preventive care, curative care of acute illness, and care for chronic disorders (Dubois, 2013).

Moreover, quality of healthcare should be assessed from the viewpoints of major stakeholders such as service users, providers, and health administrators. Shifting concept of quality measurement and health systems improvement from input-based, inspection, and quality control perception to a valid and systematic measure of quality and continuous quality improvement require appropriate, adequate and implementable methods. (Zaslavsky et al. 2000)

While specialized quality depends on target criteria, satisfaction is emotional (Donabedian 1980). Satisfaction reflects both the patient's abstract evaluation of the nature of consideration and desires for it (Pascoe 1983). While satisfaction is



frequently seen as multidimensional (Zaslavsky et al. 2000; Harris et al. 1999), the moderate-to-high relationships found between proportions of various quality measurements (Zaslavsky et al. 2000) recommends the nearness of a general quality space.

Hardly any investigations have broke down the connection between target quality and abstract patient satisfaction in social insurance or psychological wellness care (McClellan and Newhouse 2000). Meredith et al. (2001) found a procedure proportion of specialized nature of consideration to be related to patient satisfaction in emotional well-being care for discouragement. In an examination that explored whether numerous authoritative results of inpatient psychological well-being treatment corresponded with a few proportions of satisfaction, the outcomes were obscure, with a portion of the satisfaction– managerial result matches fundamentally associated, while the larger part was not (Druss, Rosenheck, and Stolar 1999).

There are a few potential methodological traps using satisfaction as a marker of specialized quality, the most hazardous being conceivable determination predisposition where this inclination happens when remarkable dismalness is accompanied with higher quality medicinal services and lower levels of satisfaction with social insurance, and grimness isn't satisfactorily controlled (McClellan and Newhouse 2000). Further, people with more noteworthy dreariness are less inclined to be happy with human services (Hoff et al. 1999; Holcomb et al. 1998; Hermann, Ettner, and Dorwart 1998). People with more notable grimness will probably be in treatment and, among those in treatment, more inclined to get an adequate level of administrations (Regier et al. 1993; Kessler et al. 1997; Wang, Berglund, and Kessler 2000). This is critical in light of the fact that, in network tests, not getting proper consideration more often than not results from the inability to acquire any

consideration or adequate consideration. The impact of the choice predisposition would think little of the size of the specialized quality– satisfaction relationship (Mauro, 2014).

- **Efficiency of care organization**

Patient satisfaction is an essential component in the nature of consideration (Elliott, 2015). With social insurance progressively moving to a patient-focused work on, understanding what patient satisfaction implies and what drives it is ending up perpetually imperative (Hockenberry, 2016). To have an unbiased view about the patient satisfaction, there is a requirement for focusing on the general patient satisfaction measures, as well as on different features of satisfaction with the consideration encounter (Huerta, 2016). By joining patient satisfaction and clinic attributes information (Lasater, 2015).

- **Structure and facilities**

Zineldine (2006) has argued that Patient Satisfaction is an accumulative paradigm surrounding satisfaction with various hospital facets. Psychologists identified the significant effect of the physical environment on the humans as well as the tools and technologies they use. The recent attention in the healthcare sector is being concentrated on the structure of the hospital facilities, including equipment and technologies, and its impact on the patient safety and quality of the services provided and thus leading to improved patient and nurse outcomes. (Reiling, Hughes Murphy, 2008)

Assessing the level of patient satisfaction requires measuring several characteristics, comprising satisfaction with care staff, nursing care, hospital environment, parking, convenience services, and physicians (Zineldine, 2006). Several reviews of the

literature relating to the physical environment included that one-bed rooms in well designed healthcare facilities, accompanied with decentralized nursing work stations throughout the unit with appropriately distributed supplies and equipment, would increase the nursing efficiency, enhance the factors that can shorten a patient's length of stay, and reduce falls as well as medical errors; and thus improve the safety, privacy, comfort and care for patients with better service quality. (Reiling, Hughes Murphy, 2008)

## **2.3 Attributes of Patient Satisfaction and its impact on Judging Overall Satisfaction**

After decades of research on patient satisfaction, we have just begun to make strides in understanding the complex underpinnings of satisfaction. What we do know is that patient satisfaction is associated with numerous positive health outcomes, including quality of life and good prognosis (Berghofer, 2001).

### **2.3.1 The Impact of Departments Work on the Overall Satisfaction**

Patient reviews of their experience and satisfaction with the delivery of care is emerging as a benchmark for health-care quality (Yeh, 2010).

Soremekun (2011) found that the quality of care was not just related to a patient's interaction with physicians. It also includes nursing care, in addition to the admission desk staff. Patients who reported a low level of satisfaction included those patients who felt the nurses did not show interest in their care, patients who did not receive useful information on self-care, and those who did not know which physician was responsible for their care (Cronin, 2013).

Additionally, nurses can give a connection between the generic mechanical world and the human world through their remarkable job in the medicinal services framework; nonetheless, creating and advancing humanistic methodologies involve a noteworthy test for attendant instructors and administrators (Malinski, 2013).

Identifying and understanding the relationships between patient, illness, and treatment variables and patient satisfaction may, in some settings, be a prohibitively costly and time-consuming endeavor (Glorimar, 2014).

Moreover, measuring inpatients' overall care satisfaction basically requires measuring the inpatient experience using inpatient satisfaction surveys in addition to comparing the results with those of related studies (Nguyen, 2002).

These measures are related to the inpatients' satisfaction in various quality-of-care classifications:

- Overall hospital experience
- Nursing staff
- Doctors
- Treatments and tests
- Admission
- Discharge

Other frameworks considered patient satisfaction as a factor of measuring inpatient perception of

- the cleanliness and comfort of the physical surroundings;
- satisfaction with respect to the food provided;
- the level of noise in the wards and the management of visitors to the wards;
- treatment and medication received;
- services of the doctors and nurses;

- Information given to patients on their condition( Hazilah, 2012); and
- The buildings, well-furnished rooms and layouts. (Torres, 2005)

Inpatients' satisfaction is a substantial fragment of the overall health care experience (Otani, 2011). The Medical care should not be only effective and safe; it must ensure the inpatients' all-inclusive stay in the hospital to be as satisfying as potential, and that is why there is a need to distinguish issues like whether the inpatients' families were treated sympathetically and whether the rooms were hygienic and inaudible (Yogesh, 2011).

Actually, the patients' willingness to recommend a hospital to their contacts and families could be perceived as a clear indicator of how satisfied they were with the care given (Yogesh, 2011).

In the following sections, the researcher will illustrate the impact of different departments on patient satisfaction.

### **2.3.1.1 Emergency Department**

Emergency Department (ED) administrators use patient satisfaction data to track aggregate data over time, study interventions, assess physician performance, and construct financial incentive plans (Kemp, 2015).

A recent study identified six elements of emergency care associated with poor satisfaction (Trzeciak, 2016):

- 1) Not receiving help when needed,
- 2) A poorly explained problem,

- 3) Not being told about waiting times,
- 4) Not being told when to resume normal activities,
- 5) Not having test results explained, and
- 6) Not understanding when to return to the ED.

While many elements of satisfaction are under provider control, many aspects of ED care are challenging for an individual provider to improve, such as waiting time, boarding time, use of hallway treatment space, and overall levels of ED crowding that might reduce staff availability and impede ancillary services such as radiology and laboratory results (Trzeciak, 2016).

Despite the challenges of obtaining reliable and valid data, providers and regulators as vital to quality assurance and improvement (Kemp, 2015) recognize the measurement of patient satisfaction. Satisfied patients are more likely to be compliant with their medications, return for continuing medical care, and communicate more effectively with their physicians (Greaves, 2013).

Patient satisfaction itself has been proposed as a measure of quality and has been recommended for use in pay-for-performance programs (Greaves, 2013). The Institute of Medicine's "Crossing the Quality Chasm" report calls for the measurement of six dimensions of the patient experience (Trzeciak, 2016):

- Safety
- Effectiveness
- Patient-centeredness
- Timeliness
- Efficiency, and

- Equity

In the most recent decade, the expanding recurrence of Emergency Department (ED) visits has concurred with diminishing quantities of ED's (Burt, 2006) and inpatient beds (Bazzoli, 2005). Along these lines, ED's are under developing strain to give care to more patients, bringing about congestion, longer hold up time (Trzeciak, 2003), loading up of conceded patients, and emergency vehicle preoccupation. With the flood of patients coming into ED's, it is winding up continuously more troublesome for offices to get patients through the framework in a convenient way because of physical limitations (Morgan, 2007). Numerous frontend and backend execution enhancement methodologies, for example, optimizing of patients (Nash, 2007), organizing experts in the ED triage, quickened triage, and enlistment (Press, 2015), and inpatient release relax have been endeavored with shifting accomplishment to address ED packing issues and enhance throughput (Soremekun, 2011).

However, different enhancement procedures would help to enhance the patient experience (Vieth, 2006) as:

- Formalized triage by nursing staff,
- Multi-staffed triage,
- Elective staffing models, patient contact nurture
- Overseeing patient desires upon entry in the ED,
- Communicating sympathy for patients,
- Diminishing throughput times,
- Ensured benefit level with monitory advantages for neglected administration levels,

- Enhancing correspondence and data conveyance and handouts,
- Instructive recordings and patient training intercessions.

Imparting the normal hold up time upon patient landing in ED triage may turn out to be a powerful method to oversee patient desires (i.e., resets the doubtful desires for the patient to a proper level) (Trzeciak, 2016).

### **2.3.1.2 Reception**

Healthcare is a human-service oriented business that is heavily affected by the intangible factors such as the mood and emotions of the support staff where patients usually notice these factors affecting their satisfaction level positively or negatively (Stucky, 2016).

Patients shape their perception of healthcare interaction throughout the whole care journey, starting from an appointment scheduling stretching until the final bill is paid (Anastario, 2010).

The receptionist's desk is considered as the first point of in-person contact of patients with the organization and is essential in the foundation of a positive patient experience (Bergeson, 2013). As well, simple factors such as comfortable lighting and having enough chairs and space to accommodate patient are also crucial for higher patient satisfaction levels (Anastario, 2010).

Patient satisfaction in reception is mainly linked to a polite and helpful staff that can help in formulating a favorable first impression for patients that usually feel nervous, uncomfortable and confused when interacting with the receptionist (Drake, 2014). A study published in the British Journal of General Practice showed low patient satisfaction scores where patients had to move conversations in comparison to staff taking initiatives to communicate and talk to patients. Hence, it is highly



recommended to prioritize the clear communication of employee roles and responsibilities; thus, patients would feel more satisfied (Stucky, 2016).

Thus, one of the most critical steps every healthcare facility can take towards improving patient satisfaction lies in prioritizing the well-being of their employees (Stucky, 2016).

### **2.3.1.3 Admission Department**

Admission Department is the responsible section for the patients' flow and the processing of admissions, discharges, transfers, and most procedures to be carried out in the event of a patient's death in the Hospital. The patient will be required to provide personal information and sign consent forms before being taken to the hospital unit or ward and thus putting the patients first (Smith, 2007 & Sothern, 2016).

Cronin (2013) and Muntlin (2006) argued that patient satisfaction is influenced by the length of wait time, total time spent in the admission department, and satisfactory medical explanation of clinical management.

Factors that interfere with this process are the use of professional terminology, time constraints, lack of privacy, and failure to fully communicate with patients (Cronin, 2013). However, patients who feel they receive more information have shown higher levels of satisfaction and an increase in compliance with medical instructions (Cronin, 2013).

Thus, there is a need to improve methods in which to develop the information exchange between patients and medical staff within the admission department, which may require different indicators (Cronin, 2013). Hospital management should ask patients how they feel towards communication with the admission department staff and how to improve the important areas to them which would provide us with patient-

centered tools to focus solutions towards enhancing communication and satisfaction (Cronin, 2013).

#### **2.3.1.4 Billing and Accounting Departments**

The charging office assumes an imperative job, as contact office between the administration and the patients (Ghose, 2011).

The Billing procedure is the last advance in healing facility, which is straightforwardly corresponding to patient satisfaction. (Rosenthal, 2006) Charging reports are vital for any doctor's facility; its activities encase clinical viewpoint, budgetary perspective, and organization for better working and essential leadership (Brown, 2016).

The charging process in the healing center begins since the patient enters until finish treatment (Mehta, 2015). This process contains every one of the exercises basic for getting ready bill to submit for patients and private suppliers to acquire repayment for the doctor's facility (Rodriguez, 2009).

Having the staff grant patient's cash related duties ahead of time, and also merging a method of transparent charging can do contemplates in completing off an all-around positive and satisfying information for the patient (Herrin, 2008).

Patients with convoluted hospital expenses are bound to have a negative involvement in the charging office. This pattern could muddle patient installments and subsequently, prompt low dimensions of satisfaction (Pearson, 2008).

As a summary, the researcher had provided a review of the patient satisfaction factors in the different departments of the hospitals and healthcare organizations.

It is clear that the patient satisfaction state of satisfaction starts since the first interaction with the emergency department and/or the admission staff, and/or reception desk, in which their first impression would affect their satisfaction deeply (Kemp, 2015).

However, the nursing staff has a significant role in shaping their attitudes, throughout the way they treat the patients, the degree to which they have the ability to provide all needed services coupled with sympathy and understanding (McMahon, 2011). Moreover, all the medical staff could play a central role in promoting the hospital's services in such a way that satisfy the beneficiaries as possible as they can (Malinski, 2013).

## **2.4 Conclusion**

As illustrated in this study, patient satisfaction is clearly influenced by hospital functions and departments.

All departments have a noticeable contribution in shaping the patients' attitude regarding the services they get, which, in its turn, determines their satisfaction eventually.

This study has conducted a 360° review for the related literature to the topic of the study. Starting with a clear identification of the health care quality and patient satisfaction Models and Determinants, a comprehensive scanning to the relevant data was done to clarify the factors which affect patient satisfaction. Moreover, the researcher has dived deeply into the different departments of the healthcare organization including Emergency Department, Reception, Admission, Accounting

and Billing, nursing Department, as well as the structure and facilities to classify and illustrate the factors that influence the patient satisfaction.

This part could be considered as an important contribution to the study, especially when analyzing each department independently and how its' operation could impact the patient's satisfaction.

In this research, the patient satisfaction attributes in the Lebanese health organizations were studied, in addition to the factors that contribute to patient satisfaction, and the factors that have negative effects that were explored.

Hence, we have launched exploratory research in the "Ain w Zein Medical Village" to study the factors which affect the patients' satisfaction; focusing on each department in the hospital and how it could contribute to the final attitude of the patients.

In the next section, we will go over the methodology which will allow us to answer our research questions regarding the determinants of patient satisfaction at AWMV, the main factors that hinder it and the validity of the current measurement instrument of patient satisfaction.

In fact, we will explore the ontology, philosophy, reasoning approach, the population, and sampling procedures as well as the research strategy in an attempt to define the research questions and set the hypotheses.

### **3. CHAPTER 3 – PROCEDURES OF METHODOLOGY**

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#### **3.1 Introduction**

Here and now the researcher has fulfilled the first two chapters of the whole study, the second chapter included the literature review, where the relevant information were discussed thoroughly to create a solid base for this study.

This chapter illustrates the research methodology. In other words, it addresses the process reformulation.

The following three questions will be answered:

- What are the determinants of customer satisfaction at AWMV?
- What are the main factors that hinder patient satisfaction?
- To what extent does each factor of the customer satisfaction survey contribute to the overall satisfaction?

In the next sections of this chapter, the philosophical position of the study will be discussed, in addition to the reasoning approach, the study population and sampling, the research strategy and methodology, and the hypothesis.

#### **3.2 Philosophical Position**

Knowledge and truth can be constituted in many views, which guide our perception of the studied phenomena. Schwandt (2001) called these views a paradigm to represent a specific method of thinking, which is common among the scientists' community for solving problems, and to signify the “commitments, beliefs, values, methods, outlooks and so forth shared across a discipline.”

Selecting the appropriate paradigm for a study may be associated with the chosen methodology. The Positivism paradigm enforces that the only way to establish truth and objective reality is the scientific method (Bogdan & Biklen, 2003). Regarding this point of view, Crotty (1998) suggested that the best context for studying a particular phenomenon is the scientific methods, techniques, and procedures. Auguste Comte has used the 'positivism' term to reflect a strict experiential approach in which claims about knowledge are based directly on experience. This also stresses facts and the causes of behavior (Bogdan & Biklen, 2003). Positivism usually relies on the scientific method to investigate the human behaviors (Crotty, 1998). Nowadays, positivism is perceived as being objectivist – that is, objects around us have existence and meaning, independent of our consciousness of them (Crotty, 1998).

The Constructivism paradigm claims that the reality nature, knowledge and its sources, values and their role in the researches process could be understood according to the others' experiences (Neuman, 1997).

In this study, we will apply the positivist paradigm since the topic has been already investigated, and we want to validate if the other researches outcomes are still relevant in such a context.

### **3.3 Reasoning Approach**

There are two broad reasoning methods: Inductive approach and Deductive approach (Trochim, 2006). As Trochim (2006) put it, Induction refers to the reasoning moving from the specific to the general; basing arguments on a certain observation or experience. While, deduction starts from general ideas towards specific ones; rules, laws, or other judgments. Creswell (2007) argued that researchers depend on Deductive reasoning, base their researches on the following steps: theory – hypothesis

– data. Nevertheless, Creswell (2007) believed that when a researcher chooses inductive reasoning, he could start from the bottom to the top depending on the participants' opinions and thoughts, towards the top.

Hence, this study has depended on the deductive reasoning approach. In other words, due to the previous literature provided related to our study topic, we will be deducing from the data if what we know theoretically corresponds with what happens on the field.

### **3.4 Population and Sampling Procedures**

In this study, the population will be the AWMV patients that filled out complaint form (Refer to Appendix A, Figure 3) or the questionnaire of customer satisfaction (Refer to Appendix B, Figure 4) for the past ten years ranging from 2007 until the end of 2017 of a sample of 27,910 questionnaires and 2,196 complaints. The customer satisfaction survey is divided into several categories based primarily on dichotomous questions and some rating scale questions collected and entered on excel files for analysis and follow up, as the complaint form is an open-ended question format.

Thus, the researcher relied on secondary data based on the historical quantitative data-driven on excel sheets of AWMV of the variables of the customer satisfaction survey as well as for the complaints.

However, the AWMV management has used to collect the available data and organize it on a quarterly basis. Thus, the researcher has got all available data and started the classifying, organizing, and analyzing process using the SPSS software.

All the needed approvals from the Hospital and concerned people were managed and granted for having the collected data from the patient's surveys for the purpose of this study.

### **3.5 Research Strategy and Methodology**

For measuring the patient satisfaction, we will use the quantitative approach for analyzing the patient's survey. Then, we will use "documentation analysis" as a tool of the qualitative approach to determine the main sources of complaints out of the collected complaints filled in order to validate our work using the triangulation technique.

For documentation, the nature, frequency, and causes of dissatisfaction will be analyzed.

Hereafter, regarding the quantitative analysis to test the levels of patient satisfaction, factor analysis, descriptive statistics, and regression test should be applied to find out what departments satisfaction have the highest contribution in the overall patient satisfaction.

### **3.6 Research Questions**

Customer satisfaction is the most important factor in evaluating the quality of the services provided. As for the healthcare sector, the patients became aware nowadays of the services provided to them and their quality (Gupta, Rokade, 2016).

This research discusses the factors that impact the patients' satisfaction within healthcare organizations. Hence, the researcher is trying to answer the following questions:



- 1) What are the determinants of customer satisfaction at AWMV?
- 2) What are the main factors that hinder patient satisfaction?
- 3) To what extent does each factor of the customer satisfaction survey in between contribute to the overall satisfaction?

### **3.7 Hypotheses**

As the research hypotheses are the typical answer of the research questions, the researcher has developed research hypotheses to answer those questions:

- Does the level of satisfaction in the reception unit impact the overall patient satisfaction?
- Does the level of satisfaction in the Emergency unit impact the overall patient satisfaction?
- Does the level of satisfaction in the medical care unit impact the overall patient satisfaction?
- Does the level of satisfaction in the nursing unit impact the overall patient satisfaction?
- Does the level of satisfaction of the Hospital accommodation experience impact the overall patient satisfaction?
- Does the level of satisfaction of the Hospital Discharge and check-out procedures impact the overall patient satisfaction?

Thus, the following hypotheses have been derived:

Reception is the first station in the care journey founding a positive patient experience. Patient satisfaction in reception is primarily linked to staff that shows

courtesy, emotions and help that results in formulating a positive impression to the patients. (Bergeson, 2013; Drake, 2014).

Moreover, Stucky (2016) recommended prioritizing the clear communication of employee roles at reception so patients would show a good level of satisfaction; the hypothesis is:

H1: The level of satisfaction in the reception unit has a positive impact on the overall patient satisfaction

Unlike many of the elements of satisfaction are under control, most elements of the Emergency Department are difficult to be controlled by providers such as ED crowding, waiting time, poorly explained problem, etc. that would increase the level of patient dissatisfaction (Trzeciak, 2016); thus the hypothesis is:

H2: The level of satisfaction in the Emergency Department has a positive impact on the overall patient satisfaction

Several investigations have demonstrated that nursing attitude, through their closeness, readiness to help, and emotional support, to patients profoundly affects the patients' experience positively (Younas, 2018), while its absence build animosity among patients and results in tension for the patients affecting their level of satisfaction (Lee, 2014). Thus, the hypothesis is:

H3: The level of satisfaction in the Nursing unit has a positive impact on the overall patient satisfaction

Based on further saying that medical care received is a key driver for patient satisfaction and the one having the most effect on outcome (Yogesh, 2011; Lake, 2016), the following hypothesis is:

H4: The level of satisfaction in the Medical care unit has a positive impact on the overall patient satisfaction

Healthcare service quality is affected by infrastructural factors since the patients' perceptions vary regarding satisfaction toward the cleanliness and comfort, food provided well-furnished rooms and layouts (Torres, 2005; Hazilah, 2012); thus the hypothesis is:

H5: The level of satisfaction of the Hospital accommodation experience has a positive impact on the overall patient satisfaction

Patient satisfaction is affected by the admission and discharge process through factors as time constraints, lack of privacy, failure to clear communication, and unclear charging method. (Herrin, 2008; Cronin, 2013), thus the hypothesis is:

H6: The level of satisfaction of the Hospital Discharge and check-out procedures has a positive impact on the overall patient satisfaction.

Moreover, in order to test the research hypotheses, the researcher has defined the following variables:

The Dependent variable:

- Y: The level of patient satisfaction.

The Independent variables:

- X1: The level of satisfaction in the reception unit
- X2: The level of satisfaction in the Emergency unit
- X3: The level of satisfaction in the medical care unit
- X4: The level of satisfaction in the nursing unit

- X5: The level of satisfaction of the Hospital accommodation experience
- X6: The level of satisfaction of the Hospital discharge and check-out procedures

### **3.8 Conclusion**

In this chapter, we have discussed many philosophical positions and opted for the post-positivism position since the previous theories and findings will be taken into consideration for generating relevant hypotheses related to the impact of the different hospital departments' performance on the overall patient satisfaction. Using a deductive reasoning approach, we relied on previous theories and findings to generate appropriate hypotheses, collect relevant observations, and analyze the findings in order to confirm or reject these hypotheses that can be generalized later on with some limitations.

The survey research strategy was used in this paper and a mixed method was applied including a quantitative analysis and a documentation analysis. The qualitative study was based on the complaint form filled at AWMV formed of an open-ended question. After analyzing the complaints, they were classified based on key terms used based on the department related to each complaint to be later analyzed and interpreted. Subsequently, the results of the questionnaire were studied using the level of patient satisfaction factors as dependent variables and the performance level of the different hospital departments as independent factors in order to confirm or reject the proposed hypotheses.

The next chapter will include the analysis and interpretation of the collected data in order to reveal the outcome of the qualitative-documentation analysis of the

complaints, and then use the quantitative questionnaire's responses to test and validate the hypotheses.

## **4. CHAPTER 4 – FINDINGS, ANALYSIS AND INTERPRETATIONS**

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### **4.1 Introduction**

This chapter will include all the findings and results released out of the research done. The analysis framework for both qualitative and quantitative analysis will be defined. A qualitative (documentation) analysis will reveal all the results of the complaints that are submitted by the population (AWMV patients) defined previously. Then, a quantitative analysis will follow which will include a descriptive statistics part covering the composition of the data set, as well as an inferential statistics part including the analysis of variations, reliability scale test, ANOVA, regression analysis, and correlation analysis. Finally, we will generate the main results and findings in the last section.

### **4.2 Analysis Framework**

#### **4.2.1 Documentation Analysis Framework**

2,196 collected complaints at AWMV for the past ten years ranging between 2007 and 2017 on excel files were used and analyzed during the documentation analysis in order to strengthen the study and make sure of having homogeneous and valuable results. Then, the complaints by administration were grouped on a yearly basis and interpreted using documentation analysis. Discussions of these findings will be found in section 4.3 of this chapter.

### **4.2.2 Quantitative Analysis Framework**

This study is mainly based on secondary data, as described in previous chapters, which is acquired from the customer satisfaction survey and already available at AWMV hospital for more than ten years and completed by patients.

In the following sections, the reliability will be tested using Cronbach's Alpha analysis.

After that, a descriptive analysis has been conducted based on gender, age, and distribution of the respondents between the different departments in the hospital, in addition to inferential statistics including one-way ANOVA and t-test for parametric variables for testing variation analysis.

Finally, a regression analysis has been conducted to test the validity of the research hypothesis, taking into consideration that all the tests discussed previously are mentioned below with further analysis and details.

## **4.3 Documentation Analysis**

The outcomes of the AWMV complaints collected were summarized into three sections; the first section includes the general part about the complaints including the received samples, the valid ones, the sum numbers of the valid remarks, and the valid complaints. The second section includes the numbers of the remarks by administration as well as the complaints. The third section, which is the most important one, will present in details the complaints in each administration/field of expertise separately.

Note that the study is done based on administrations containing Financial, Services, Medical, Nursing, DGA, and General Administrations, where every administration holds several departments which would be mentioned later.

#### **4.3.1 Section 1: General Part of Complaints**

The total number of samples received for the ten years is 2,196. The number of the samples received varies between 106 and 274 per year. (Refer to Appendix C-Figure 5)

Invalid samples are those without specifying the department related to the complaint; including disrespectful language for the hospital, and remarks about all staff.

However, 91% of the received samples were valid. The valid samples are those that included a complaint, suggestion and/or a thank you letter. (Refer to Appendix C-Figure 6)

Out of the valid samples, the valid remarks' sum was 3,038. These valid remarks represent the sum of the complaints, suggestions, and thank you letters found in the valid samples. Note that a valid sample might contain more than one remark. (Refer to Appendix C-Figure 7)

However, 80% of the valid remarks were complaints, and 20% of sum number is distributed between suggestions and thank you letters. (Refer to Appendix C-Figure 8)

It is seen that years 2007, 2008 and 2016 register the lowest number of complaints as well as remarks in comparison to the other years.

As we notice, the remarks and complaints are correlated since as mentioned before that 80% of the remarks are complaints and 20% are suggestions and thank you letters. However, as the remarks increased, the complaints also increased as well, and vice versa. (Refer to Appendix C-Figure 9)



#### **4.3.2 Section 2: Summary Totals of Remarks and Complaints by Administration**

Nursing administration registers the highest percentage of remarks of 38%, followed by the Services Administration of 33%. Medical administration shows a 19% at the time the Financial Administration shares of 6%. DGA and General administration register of 2% each. (Refer to Appendix C-Figure 10)

Below is an explanation for identifying what does each administration contains of departments and sections that were based on it the study executed and the questions designed.

Nursing Administration: All Nursing Departments-Operating Room Department (OR)- Emergency Room Department (ER)

Medical Administration: Medical Record-Medical Imaging Department (Radiology)- Laboratory Department- Blood Bank & Pathology- Physiotherapy Department- Out-Patient Department (OPD) –Doctors

Financial Administration: Accounting-Cashiers-Patient Affairs Department (contains Admission, Billing& Reception)-Fixed Assets Department.

Services Administration: Procurement Department-Maintenance Department-Kitchen-Hotel and Environmental Services Department (contains Dietary, Kitchen, Laundry, Waste Management, Garden)-Support Service Department (contains Transportation, Parking, Security & Fire Safety- Central).

However, the Nursing Administration registers the highest percentage of the complaints followed also by the Services Administration of 32%. Medical Administration shows a 20% of the total complaints at the time the Financial Administration registers 6%. DGA and General administration register of 1% each. (Refer to Appendix C-Figure 11)

Moreover, studying more deeply the three top administrations that share with 92% of the total complaints from all administrations, we can clearly deduce that the nursing and services administrations were always of the biggest share of the complaints throughout all the ten years studied with a fluctuation move ending up in year 2017 with a good decrease in the services administration, negligible decrease in the medical administration and an apparent increase in the nursing administration recording the highest percentage of complaints through the whole ten years.

Excluding the years 2007 and 2009, nursing administration always marked the highest number of complaints till year 2014 followed by the services administration with a number relatively close to that of nursing. However, years 2015 and 2016 also registered the same results but with a noticeable difference in the percentages of complaints between the nursing and services administration, ending up with year 2017 with a remarkable increase in the nursing administration and decrease in the services one that would be explained by the increased number of the valid complaints received in this year. (Refer to Appendix C-Figure 12)

### **4.3.3 Section 3: Complaints by Administration**

#### **Nursing Administration (NA)**

The complaints in the nursing administration are several. Patient care shows the highest level of complaints fulfilled by patients for the years 2007 till 2017. Delay in

response is the second highest number of complaints followed by communication complaints, organization, logistic service, shortage in nursing staff, and others. (Refer to Appendix C-Figure 13)

83% Of the NA complaints consist of three main complaints that are patient care, delay in response, and communication.

Patient care is the main complaint in the nursing administration. Patient care contains many factors including bad treatment, inappropriate distribution of patients, hygiene issues, disturbance of patients, disrespectful attitude toward patients from nurses, wrong prescription/medication provided, safety measures, patients' transportation problems, as well as patient's privacy. It has recorded the highest level of complaints in this administration except for the year 2012. However, the level of complaints was fluctuating among the years 2007 till 2015 and then moving in an increasing manner to reach its highest level in the year 2017.

Patient care included complaints related to patient's safety, hygiene, inappropriate distribution of patients, mocking, bad treatment, disturbance of patients, nursing care, wrong medication given, wrong patient identification, insufficient information dissemination, safety measures, disrespectful attitude toward patients, and patient care in general.

Followed by delay in response in rank number two, it included complaints of delay in answering the patients and family needs, delay in response, and waiting a long time.

Communication was the third-highest complaint group that included complaints related to patient communication and education.

Moreover, the logistic services complaints include these related to losing private things related to patient, loud voices during night shifts, nonfunctional nursing call system, and orderly. (Refer to Appendix C-Figure 14)

### **Services Administration (SA)**

Complaints in the services administration vary between hotel and environmental services, cleanliness, logistic services, dietary services, maintenance, security, and other complaints such as equipment, noise, kitchen, parking, and others. (Refer to Appendix C-Figure 15)

Hotel and environmental services show the highest percentage of complaints in the services administration. This category includes complaints related to coffee and vending machine, bad odors, cafeteria, high cafeteria prices, dirty cutlery provided to patients, linen, gowns, wet floor, and operator. Cleanliness presents 21% of total services complaints, followed by the complaints of logistic services that include air conditioning issues, unavailability of AC in some departments, heating problems, security, phone dysfunction, late stay of visitors at night, and high number of visitors in patients' rooms and waiting areas.

Maintenance presents 10% of the services administration complaints that include maintenance issues related to elevators, AC, dysfunctional equipment and seats, noisy generators, and rust in water from sinks. (Refer to Appendix C-Figure 16)

### **Medical Administration (MA)**

The complaints in the medical administration consist mainly of communication problems, patient care, delay, admission-discharge, and others. (Refer to Appendix C-Figure 17)

However, the complaints related to patient care, communication, and delay forms about 94% of total medical administration complaints.

The share of the communication problems is 37%. It includes bad attitude from staff, disrespectful attitude toward the patients, communication problems, lack of providing appropriate patient education, misdiagnosis, miscommunication between medical team, and no clear medical information provided to patients and their families.

Patient care forms 36% of the MA with major complaints related to complications after surgery, dissatisfaction about medical follow up and education, inappropriate medical care, infection control issues, no regular checking for the patient in ER, non proper admissions at the same room, readmission, wrong diagnosis, wrong results, and waiting for physicians & procedures.

However, delay complaints represents 22% of the MA complaints related to delay in medical results, medical assessment, performing procedures, patient examination, attending physicians round, and slow medical service in addition to the complaints of physicians' unpunctuality. (Refer to Appendix C-Figure 18)

### **General Administration (GA)**

The valid samples showed that the complaints about the general administration were limited by the year 2012 since the complaints were wrong allocated as the results show that they belong to their administrations and not the GA. However, I believe that a corrective action was taken after this year reorganizing the complaints between the related administrations.

The sum of GA complaints is only 9 only distributed between complaints related to restriction of children's visits to the patients' rooms, smoking of employees in the verandas, bad words against the hospital, absence of the Medical Director, noise

resulted from the doors in nursing stations, patient discharge directly from the recovery room and discordance in Opening time between Medico- Technical Departments and the Cashier Office in OPD. (Refer to Appendix C-Figure 19)

### **Financial Administration (FA)**

The complaints in the financial administration varies between admission, delay, communication problems, payment issues, calling patients in room for payment, billing problems, high deposits on admission, bad reception clerks, non-availability of cashier during working hours, and others. (Refer to Appendix C-Figure 20)

Moreover, the financial administration didn't score complaints throughout all the years. However, through the years of high score of valid complaints, the financial administration's complaints increased, to reach its most top record during the year 2017.

38% of the FA complaints are admission, with complaints related to delayed admission/discharge, not providing full information about needed papers for admission, wrong registration for the guarantor, no self-introduction by admission employees when dealing with customers through phone calls, and admission office services. 24% is a delay with a long time waiting for registration or payment where the patient called to pay in cashier office before completion of the file. As well, communication problems share with 10% of total FA complaints mainly related to ER admission officer. Payment issues of 10% including complaints related to issues with credit card machine and slowness of central cashier to finish the payment process. Long waiting tie to pay for Chemo sessions and inaccuracy of the sum of money to be paid are the main complaints related to billing. (Refer to Appendix C-Figure 21)

## 4.4 Quantitative Analysis

After collecting the data, the researcher has analyzed it using “SPSS” software.

As a first step, the reliability of the data has been analyzed using Cronbach's Alpha scale test.

**Case Processing Summary**

		N	%
	Valid	25677	91.8
Cases	Excluded <sup>a</sup>	2232	8.2
	Total	27909	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.897	49

*Table 1: Reliability test-Cronbach's Alpha test*

Table 1 shows that Cronbach's Alpha yielded 89.7% higher than the reliability coefficient of 70%. Thus, this demonstrates that the research data has good reliability and a relatively high internal consistency.

Then, a descriptive analysis has been conducted to define the study sample as follows:

A general evaluation of stay question was asked in an attempt to evaluate the patients' feedback.

**General\_Evaluation\_of\_Stay**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsatisfied	196	.7	.7	.7
	Fair	1134	4.1	4.1	4.9
	Good	8311	29.8	30.4	35.2
	Verygood	17729	63.5	64.8	100.0
	Total	27370	98.1	100.0	
Missing	System	540	1.9		
Total		27910	100.0		

*Table 2: General Evaluation of Stay*

Table 2 shows that more than 92% of the respondents have evaluated the General Evaluation of Stay as good (29.8%), very good (63.5%) and only 4.1% have considered it fair, while less than 1% said that it was bad.

These results having a high rate evaluating the stay as very good and good might refer to the reason that patients usually, by the end of the treatment, evaluate their stay based on the medical progress and better health conditions they had.

The age of the respondents was collected in the first question of the questionnaire having as values six age groups, as illustrated in the following table.

The results of the question related to the age of respondents (Refer to Appendix D-Table 21) show that the people who have responded to the survey are from all age groups as follows:



The majority of the respondents refer to the age group between 15-35 with a 30.7% referring to 3674 respondents, followed by a 19.5% of age between 36-50 counting for 2333 respondents. 13.4% Less than 15 with a count of 1605 respondents was registered, 15.7% are between 51-65 (1874 respondents), 9.8% are between 66-75 (1173 respondents), and only 11% are more than 75 years old (1311 respondents).

However, according to the hospital statistics, the percentage of patients aged above 50 years is 59%. This might not show similar figures, as the percentage of responses of patients aged above 50 years is 36.5%. This difference could be as a result of the lack of interest they have towards filling the patient satisfaction surveys after completing their medical treatment as well as the desire of the patients of age group 15-35 to help the nurses that would ask for this task not only in an attempt to document their positive feedback toward them but also the treatment they had during the stay.

Moreover, it might be that most of the elderly patients refuse to fill the surveys as they merely care about such details added to the fact that these elderly patients are admitted from the elderly care center in the AWMV and however don't have relatives with them to fill the questionnaire.

The gender of the respondents collected from the question of the patient satisfaction survey represented as a dichotomous variable (sex) show that the respondents were mainly female counting for about 59% (16196), while 41% of them were male (11194).

There is a minor difference between the study results and the hospital statistics which assure that the patients' Female percentage is 51% and the male percentage is 49%. However, it could be considered as a normal difference as women usually tend to pay

more attention to these details and they typically adhere to complete all papers including the survey. (Refer to Appendix D- Table 22)

The questionnaire included a question of the patient's admission department. It refers to the distribution of the respondents between the different departments in the hospital. It shows that the survey has almost covered all departments in different close percentages.

This normal distribution fosters the validity of the study as it gives a sense of credibility and reliability. These validity and reliability factors are based on the comprehensive selection of the research sample, assuring that there was no bias in the collected data as we can see that patients from all departments are included in the study sample. Such type of bias comes from selecting only certain departments or from excluding certain ones. (Refer to Appendix D- Table 23)

**Difficult access to the hospital**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2666	9.6	9.6	9.6
	No	25129	90.0	90.4	100.0
	Total	27795	99.6	100.0	
Missing	System	115	.4		
Total		27910	100.0		

*Table 3: Difficult access to the hospital*

Table 3 shows that the vast majority of the respondents think that there are no obstacles in accessing the hospital, while only 9.6% expressed some difficulty in the accessibility process.

This table is reflected in the patients' level of satisfaction. It is clear that relatively high levels of patient satisfaction have been documented. This, in turn, should be imitated in the patients' ease of access to the hospital.

## 1. Hypotheses analysis

### 2.1 H1: The level of satisfaction in the reception unit has a positive impact on the overall patient satisfaction

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.327 <sup>a</sup>	.107	.107	.445

a. Predictors: (Constant), Received patients booklet, Waiting time < 2 hours

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	170.744	2	85.372	431.713	.000 <sup>b</sup>
	Residual	1424.008	7201	.198		
	Total	1594.752	7203			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Received patient's booklet, Waiting time < 2 hours

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.676	.006		258.811	.000
	Waiting time < 2 hours	.324	.051	.327	6.296	.000
	Received patient's booklet	8.866E-013	.052	.000	.000	1.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

Table 4: The impact of Reception factors on patient satisfaction

As can be seen in the warning related to table 4, the variable “Enough information about the admission process” is either constant or has missing correlation and thus this variable has been deleted from the test.

Moreover, the p-value for the variable (received patient’s book) is equal to 1.00.

Hence, this factor has been deleted, and the regression test was repeated. Following is the new test result:

#### Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.421 <sup>a</sup>	.177	.177		.418

a. Predictors: (Constant), Waiting time < 2 hours

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	376.143	1	376.143	2152.055	.000 <sup>b</sup>
	Residual	1744.684	9982	.175		
	Total	2120.827	9983			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Waiting time < 2 hours

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.676	.006		275.291	.000
	Waiting time < 2 hours	.389	.008	.421	46.390	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

Table 5: the impact of Reception factors on patient satisfaction (Adjusted)

Table 5 shows that the Reception factors have an impact on patient satisfaction, as the p-value records a relatively small number less than 0.05; hence there is a good correlation between good reception in admission and the overall patient satisfaction.

Thus, this shows that the patients are affected by the way they are welcomed and treated with empathy. Some of the factors that might consider to rate the patients' satisfaction at reception are politeness, helpfulness and the clarity of instructions received.

Moreover,  $R^2$  is equal to 0.107, which indicates that the good reception in admission has a low significance contributing to about 10.7 % on the overall patient satisfaction.

Referring to the importance of employees in hospitals and their effect on the quality of service being served, Stucky (2016) said "One of the most important steps any healthcare facility can take towards improving patient satisfaction lies in prioritizing the well-being of their employees."

However, we found that the level of satisfaction in the reception unit has a low significant positive impact on the overall patient satisfaction.

***H1: The level of satisfaction in the reception unit has a positive impact on the overall patient satisfaction***

We also have rerun the regression test with the only variable that has been excluded automatically by the "SPSS", following is the test result:

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.161 <sup>a</sup>	.026	.026	.623

a. Predictors: (Constant), Enough information about the admission process

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	238.916	1	238.916	615.470	.000 <sup>a</sup>
	Residual	8984.928	23146	.388		
	Total	9223.844	23147			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Enough information about the admission process

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.496	.004		596.474	.000
	Enough information about the admission process	.504	.020	.161	24.809	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 6: The impact of Reception factors on patient satisfaction (Enough information about the admission process)*

Table 6 shows that the Reception factor (Enough information about the admission process) has an impact on patient satisfaction, as the p-value is a relatively small

number less than 0.05 level of significance; hence, there is an impact of this Reception factor on the level of patient satisfaction.

Table 9 also shows that  $R^2$  equals 0.026, which indicates that almost 2.6% of the overall patient satisfaction is due to providing patients with enough information about the admission process.

The result of the test related to the impact long waiting time on patient satisfaction shows that the p-value is a relatively small number less than 0.05. Hence, there is a correlation between long waiting time and overall patient satisfaction. (Refer to Appendix D-Table 24)

Moreover,  $R^2$  records .019, which indicates that the good reception in admission has a contribution of 2% on the overall patient satisfaction.

### **2.1 H2: The level of satisfaction in the Emergency Department has a positive impact on the overall patient satisfaction**

In order to test the impact of the Emergency unit on the patient satisfaction, the researcher has computed a new variable “EMERGENCY” containing all related variables to the Emergency unit.

Then, a Regression test was conducted to test that correlation as follows:

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.386 <sup>a</sup>	.149	.149	.407

a. Predictors: (Constant), Emergency

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	283.901	1	283.901	1714.153	.000 <sup>b</sup>
	Residual	1625.745	9816	.166		
	Total	1909.646	9817			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Emergency

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.699	.006		297.651	.000
	Emergency	.177	.004	.386	41.402	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 7: The impact of Emergency unit staffs' performance on patient satisfaction*

Table 7 shows that the p-value is a relatively small number less than 0.05 level of significance. Hence, Emergency unit staff performance has an impact on patient satisfaction. It shows that R<sup>2</sup> is 0.149. It means that almost 14.9% of the overall patient satisfaction is due to the patients' evaluation of the Emergency experience. It



shows the importance of this department performance on the overall satisfaction. However, this might be due to the fact that most patients enter the hospital mainly through the Emergency Department, other than those with scheduled operations; and thus it is the first point of contact for patients where they appreciate overseeing their desires upon entry, receiving help when needed, and being communicated with sympathy.

This result is congruent with the findings of Trzeciak (2016). In his study, Trezecaik has identified six elements of emergency care associated with poor satisfaction:

- 1) Not receiving help when needed,
- 2) A poorly explained problem,
- 3) Not being told about waiting times,
- 4) Not being told when to resume normal activities,
- 5) Not having test results explained, and
- 6) Not understanding when to return to the ED.

In our survey, we have tried hard to relate all of the factors mentioned above in such a way we can test the respondents' satisfaction from their experience with the Emergency Department, with regards to the other factors.

Hence, we found that the level of satisfaction in the emergency department has a relatively low significance on the overall patient satisfaction.

***H<sub>2</sub>: The level of satisfaction in the Emergency Department has a positive impact on the overall patient satisfaction***

Moreover, a regression test has been conducted to measure each factor's contribution on the overall patient satisfaction.

Considering that  $p\text{-value}=1.000$  for the variable (Good reception in ER, Receiving medical care within 15 min when arriving to ER, Reason of admission is explained by the physician, Justified waiting time in ER after decision of admission...), the related variables were excluded and the test again was run. (Refer to Appendix D-Table 25)

Following is the new test result:

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.393 <sup>a</sup>	.154	.154	.406

a. Predictors: (Constant), Waiting time < 2 hours

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	294.446	1	294.446	1789.425	.000 <sup>b</sup>
	Residual	1615.201	9816	.165		
	Total	1909.646	9817			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Waiting time < 2 hours

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.690	.006		292.160	.000
	Waiting time < 2 hours	.346	.008	.393	42.302	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

Table 8: The impact of Emergency factors on patient satisfaction (Adjusted)

Table 8 shows that the Emergency factors have an impact on patient satisfaction, as the p-value is a relatively small number less than 0.05 level of significance; hence, there is an impact of the Emergency factors on the level of patient satisfaction.

The  $R^2$  of the above model records 0.154, which indicates that almost 15% of the overall patient satisfaction is due to the patients' evaluation of the Emergency experience.

However, it was clear that the only predictor contributing to the patient satisfaction with regards to the Emergency Department factors is waiting time and being the most important factor for patients admitting to the emergency department. This result from our study could be considered aligned with what Trzeciak (2016) argued about: "Imparting the normal hold up time upon patient landing in ED triage may turn out to be a powerful method to oversee patient desires (i.e., resets the doubtful desires for the patient to a proper level)."

Hence, what we have concluded for the second hypothesis is that:

***H<sub>2</sub>: The level of satisfaction in the Emergency Department has a low positive impact on the overall patient satisfaction***

**2.2 H3: The level of satisfaction in the Nursing unit has a positive impact  
on the overall patient satisfaction**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.658 <sup>a</sup>	.432	.432	.463

a. Predictors: (Constant), Accident in hospital, Analgesic when needed, Enough information about departments rules & regulations, Satisfied about transportation inside hospital

**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4235.892	4	1058.973	4931.405	.000 <sup>b</sup>
	Residual	5558.132	25883	.215		
	Total	9794.023	25887			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Accident in hospital, Analgesic when needed, Enough information about department's rules & regulations, Satisfied about transportation inside hospital

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.005	.012		84.960	.000
1 Reception within 15 min when arriving in the unit	-3.542E-013	.041	.000	.000	1.000
Reception by RN in charge	2.410E-013	.052	.000	.000	1.000
Enough information about department's rules & regulations	-2.985E-013	.038	.000	.000	1.000
Enough information before execution of any procedure or exam	-3.768E-013	.033	.000	.000	1.000
Help when required	-2.922E-013	.044	.000	.000	1.000
Analgesic when needed	-3.164E-013	.054	.000	.000	1.000
Satisfied about transportation inside hospital	4.517E-013	.038	.000	.000	1.000
Accident in hospital	1.631	.012	.626	133.342	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 9: The impact of Nursing factors on patient satisfaction*

Table 9 shows that p-value is 1.000 for several variables (Reception within 15 min when arriving in the unit, reception by RN in charge, enough information about department's rules & regulations, enough information before execution of any procedure or exam, help when required, analgesic when needed, satisfied about transportation inside hospital). Therefore, we have excluded the related variables and rerun the test. Following is the new test result:

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638 <sup>a</sup>	.337	.337	.370

a. Predictors: (Constant), Accident in hospital

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4040.378	1	4040.378	18273.129	.000 <sup>p</sup>
	Residual	5888.390	26631	.221		
	Total	9928.768	26632			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Accident in hospital

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.005	.012		83.727	.000
	Accident in hospital	1.672	.012	.638	135.178	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 10: The impact of Nursing factors on patient satisfaction (Adjusted)*

Table 10 shows that the Nursing factors have an impact on patient satisfaction with a p-value relatively small number less than 0.05; hence, there is an impact of the Nursing factors on the level of patient satisfaction.

The R<sup>2</sup> of the retesting done shows a 0.337 result; which indicates that almost 33.7% of the overall patient satisfaction is due to the patients' evaluation of the Nursing experience.

However, we tried to implement what Vieth (2006) has claimed that different enhancement procedures would help to enhance the patient experience. In our study, we tried to focus on almost all of these aspects, including:

- Formalized triage by nursing staff
- Multi-staffed triage
- Elective staffing models, patient contact nurture
- Overseeing patient desires upon entry in the ED
- Communicating sympathy for patients
- Diminishing throughput times
- Ensured benefit level with monitory advantages for neglected administration levels
- Enhancing correspondence, data conveyance and handouts
- Instructive recordings and patient training intercessions.

Thus, we found that the level of satisfaction in the Nursing unit has a moderate significant positive impact on the overall patient satisfaction.

This means that nursing performance has a central role in shaping the attitude of the patients and in evaluating their level of satisfaction through the way this nursing staff treat the patients and their ability to provide the needed services coupled with sympathy and understanding.

***H3: The level of satisfaction in the Nursing unit has a moderate positive impact on the overall patient satisfaction***

### 2.2.1 General evaluation of nursing care

**General evaluation of nursing care**

		Frequency	Percent	Valid Percent	Cumulative Percent
	Unsatisfied	164	.6	.6	.6
	Fair	658	2.4	2.5	3.1
Valid	Good	5761	20.6	21.7	24.8
	Very good	19921	71.4	75.2	100.0
	Total	26504	95.0	100.0	
Missing	System	1406	5.0		
Total		27910	100.0		

*Table 11: General evaluation of nursing care*

Table 11 shows that the majority of respondents (71.4%) have expressed a high level of satisfaction regarding the performance of nursing care unit's staff. In addition, 20.6% have evaluated the experience of nursing unit as good, while 2.4% have considered it as fair, and only 6% have expressed dissatisfaction about this experience. These results show that the patients are satisfied with the general evaluation of the nursing care although some complaints would result during their stay or their dissatisfaction of certain issues that they would face with the nursing staff.



This is also illustrated in the following Regression test as follows:

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.830 <sup>a</sup>	.689	.689	.341

a. Predictors: (Constant), General evaluation of nursing care

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6823.339	1	6823.339	58661.469	.000 <sup>p</sup>
	Residual	3082.639	26502	.116		
	Total	9905.979	26503			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), General evaluation of nursing care

#### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.025	.011		2.295	.022
	General evaluation of nursing care	.941	.004	.830	242.201	.000

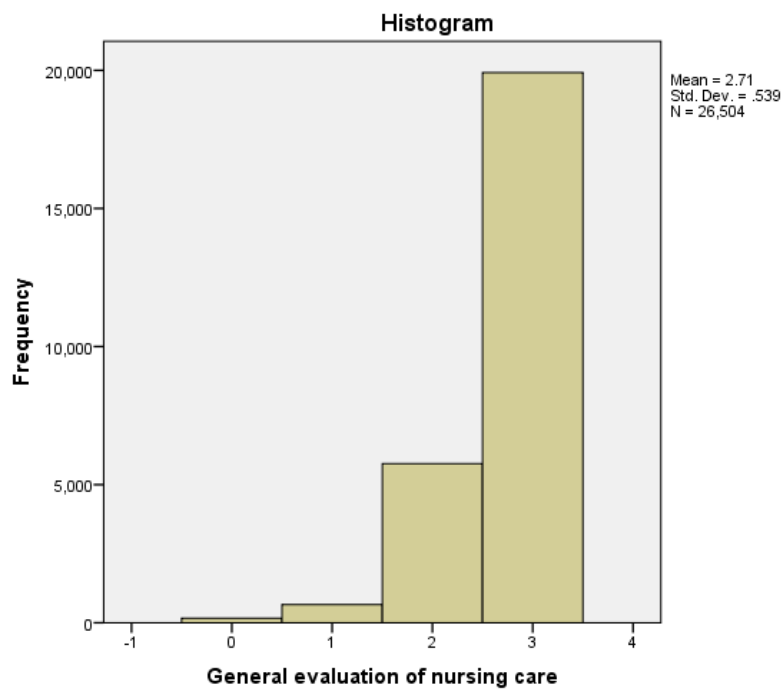
a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 12: The impact of General evaluation of nursing care on the overall patients' satisfaction*

As the p-value is a relatively small number, we can assure that the general evaluation of nursing care has an impact on the overall patients' satisfaction.

Knowing that this has a contribution of almost 69% as  $R^2$  is 0.689; this would be reflected in the overall satisfaction of the patients. This might be due to the high level of interaction between the patients and nurses which could explain the high contribution of their nursing experience rather than their medical experience; this that makes patients highly satisfied with the overall nursing care even in the presence of dissatisfaction or complaints on certain issues.

However, it can be seen that this result is congruent with what Lake (2016) has argued when he stated that nursing care unit has a significant impact on the overall patients' satisfaction.



*Figure 1: General Evaluation of Nursing Care*

**2.3 H4: The level of satisfaction in the Medical care unit has a positive impact on the overall patient satisfaction**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.149 <sup>a</sup>	.022	.022	.620

a. Predictors: (Constant), Resident availability

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	207.939	1	207.939	540.484	.000 <sup>d</sup>
	Residual	9173.813	23845	.385		
	Total	9381.751	23846			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Resident availability

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.513	.004		613.597	.000
	Resident availability	.487	.021	.149	23.248	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 13: The impact of Medical factors on patient satisfaction*

It is apparent in the warning noted in the test that some variables are constants or have missing correlations: Daily medical visit by attending, enough information from the doctor about your health status. Thus, these variables will be automatically deleted from the test.

However, table 13 shows that the Medical factor "Resident availability" has an impact on patient satisfaction, as the p-value indicates a relatively small number of less than 5% level of significance; hence, there is an impact of the medical factors on the level of patient satisfaction.

Also, the  $R^2$  records 0.022. This indicates that only 2% of the overall patient satisfaction is due to the patients' evaluation of the medical experience. This might be due to the formulation of questions under the medical experience being strictly related to residents in the patient satisfaction questionnaire since the result is contradictory with that of the general contribution of the medical care to the patient satisfaction that showed 64%.

Some of the factors that might contribute in rating the patients' satisfaction regarding the medical experience are the helpfulness of the residents on the floor and the readiness of the physicians to communicate with them giving clear explanations and answers on their questions and concerns.

Such results mean that the patients are concerned regarding this factor not by the physician they are having but with other factors like the residents availability on the floor and which also assures that the overall patient satisfaction doesn't only depend on main medical issues and goes beyond that to many other complementary factors in the healthcare process.

In this research, the results we have reached are consistent with Otani's (2011) argument, which states that "inpatients' satisfaction is a substantial fragment of the

overall health care experience. It is also congruent with Yogesh (2011) stating that: "The medical care should not be only effective and safe; it must ensure the inpatients' all-inclusive stay in the hospital to be as satisfying as potential, and that is why there is a need to distinguish issues like whether the inpatients' family was treated sympathetically and whether the rooms were hygienic and inaudible".

Consequently, what have been found regarding the fourth hypothesis is:

***H4: The level of satisfaction in the Medical care unit has a low positive impact on the overall patient satisfaction***

Furthermore, a regression test has been also conducted for the factor "General evaluation of medical care" as follows:

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.803 <sup>a</sup>	.645	.645	.364

a. Predictors: (Constant), General evaluation of medical care

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6409.579	1	6409.579	48458.020	.000 <sup>b</sup>
	Residual	3532.687	26708	.132		
	Total	9942.266	26709			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), General evaluation of medical care

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-.089	.012		-7.229	.000
	General evaluation of medical care	.975	.004	.803	220.132	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 14: The impact of General evaluation of medical care on patient satisfaction*

Table 14 shows that “the General evaluation of medical care” has an impact on patient satisfaction, as the p-value is less than 0.05 level of significance; hence there is an impact of General evaluation of medical care on the level of patient satisfaction.

R<sup>2</sup> illustrates an average of 0.645, which indicates that 64% of the overall patient satisfaction is due to the patients’ evaluation of the general evaluation of medical care. This might be due to the long patient-physician relationship that helps physicians gain their patients’ confidence; and thus patients tend to show high level of satisfaction for the medical care they get.

### 2.3.1 General evaluation of medical care

**General evaluation of medical care**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsatisfied	100	.4	.4	.4
	Fair	494	1.8	1.8	2.2
	Good	5683	20.4	21.3	23.5
	Very good	20433	73.2	76.5	100.0
Total		26710	95.7	100.0	
Missing	System	1200	4.3		
Total		27910	100.0		

*Table 15: General evaluation of medical care*

Table 15 shows that the vast majority of respondents have been satisfied regarding the General evaluation of medical care, as 73.2% assured that the General evaluation of medical care is very good, and 20.4% of them said it was good, while only 4% have expressed dissatisfaction about the medical care experience. This complies with the regression test done for the factor general evaluation of the medical care that shows the importance of this factor. However, having a 73% response as very good about the general evaluation of the medical care question in the questionnaire at the time having the medical care unit a low positive impact (2%) on the overall patient satisfaction, this directs us on the urgency of reviewing the questions related to this factor in the questionnaire with a parallel investigation of the complaints related to the medical care unit for modifications to be done where needed and formulation of the correct questions that the patients care about.

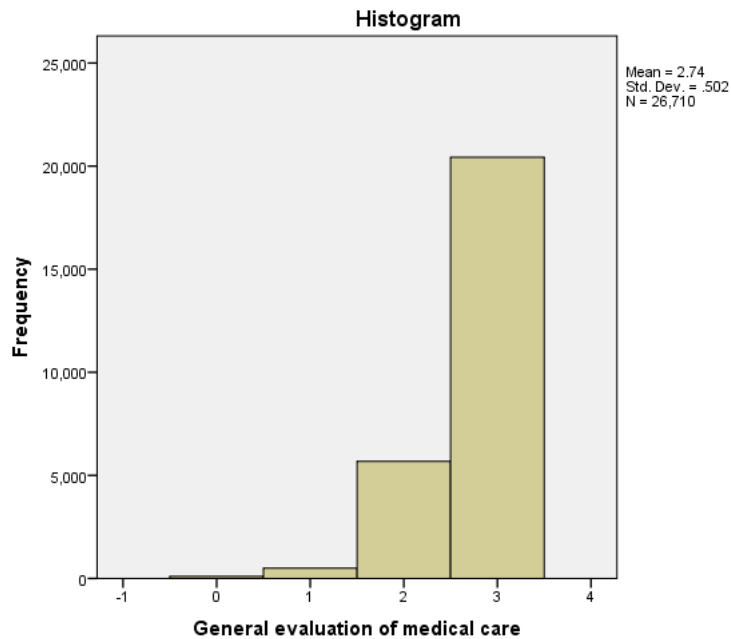


Figure 2: General Evaluation of Medical Care

## 2.4 H<sub>5</sub>: The level of satisfaction of the Hospital accommodation experience has a positive impact on the overall patient satisfaction

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224 <sup>a</sup>	.050	.050	.599

a. Predictors: (Constant), Appropriate time of distribution of meal, Calm and organized department, Adequate food temperature, Clean and good quality, Enough quantity, Variety of menu

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	492.285	6	82.047	229.000	.000 <sup>b</sup>
	Residual	9332.613	26048	.358		
	Total	9824.898	26054			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Appropriate time of distribution of meal, Calm and organized department, Adequate food temperature, Clean and good quality, Enough quantity, Variety of menu



**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.527	.004		648.981	.000
1					
Calm and organized department	4.744E-013	.040	.000	.000	1.000
Variety of menu	-1.097E-012	.071	.000	.000	1.000
Clean and good quality	-7.978E-013	.054	.000	.000	1.000
Enough quantity	3.477E-013	.035	.000	.000	1.000
Adequate food temperature	.473	.022	.224	21.250	.000
Appropriate time of distribution of meal	1.401E-012	.060	.000	.000	1.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 16: The impact of Hospital accommodations' factors on patient satisfaction*

Table 16 shows that the p-value equals 1.000 for the variables (Calm and organized, Variety of menu, Clean and good quality, enough quantity, and distribution of meal). Thus, the related variables have been excluded and again re-run the test; Following is the new test result:

Note that some factors have been excluded by the "SPSS" software as there was no correlation with the dependent variable General\_Evaluation\_of\_Stay. Those variables are clean department, comfortable and calm, clean and organized, adequate room temperature, clean & arranged toilettes.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224 <sup>a</sup>	.050	.050	.599

a. Predictors: (Constant), Adequate food temperature

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	492.285	1	492.285	1374.266	.000 <sup>o</sup>
	Residual	9332.613	26053	.358		
	Total	9824.898	26054			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Adequate food temperature

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.527	.004		649.044	.000
	Adequate food temperature	.473	.013	.224	37.071	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 17: The impact of Hospital accommodations factors on patient satisfaction*

Table 17 shows that the Hospitalization factors have an impact on patient satisfaction; as the p-value indicates relatively small number less than 0.05; hence, there is an impact of the Hospitalization factors on the level of patient satisfaction.

The  $R^2$  indicates a result of 0.050, which indicates that almost 5% of the overall patient satisfaction is due to the patients' evaluation of the Hospitalization experience.

This means that the factors related to the environment do not contribute to the satisfaction but might be elements that contribute to the dissatisfaction of the patients; patients won't evaluate their overall satisfaction based on these services but they do care about its quality and would declare their dissatisfaction from it through registering complaints. However, some of the factors that might patients care about are cleanliness, level of noises, the room and layouts, the building and the quality of food served although non-significant in the results we had.

However, Zineldine (2006) has provided a similar contribution in this field. Zineldine argued that Patient Satisfaction is an accumulative paradigm surrounding satisfaction with various hospital facets. Psychologists identified the significant effect of the physical environment on the humans and the tools and technologies they use. The recent attention in the healthcare sector is being concentrated on the structure of the hospital facilities including equipment and technologies and its impact on the patient safety and quality of the services provided and thus improving patient and nurse outcomes. (Reiling, Hughes Murphy, 2008)

This result confirms the validity of the fifth hypothesis:

***H5: The level of satisfaction of the Hospital accommodation experience has a positively low impact on the overall patient satisfaction***

**2.5 H6: The level of satisfaction of the Hospital Discharge and check-out procedures have a positive impact on the overall patient satisfaction.**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.638 <sup>a</sup>	.332	.332	.388

a. Predictors: (Constant), Discharge instruction received & explained , obstacles / problems in completing formalities of discharge

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3709.927	2	1854.964	7785.974	.000 <sup>u</sup>
	Residual	5397.900	22657	.238		
	Total	9107.827	22659			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Discharge instruction received & explained , obstacles / problems in completing formalities of discharge

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.564	.008		189.650	.000
	obstacles / problems in completing formalities of discharge	1.111	.009	.633	123.713	.000
	Discharge instruction received & explained	.325	.031	.054	10.638	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 18: The impact of Discharge factors on patient satisfaction*

Table 18 shows that the Discharge factors have an impact on patient satisfaction, as the p-value indicates a relatively small number less than 0.05 level of significance; hence, there is an impact of the discharge factors on the level of patient satisfaction.

Moreover,  $R^2$  indicates 0.332, which indicates that 33.2% of the overall patient satisfaction is due to the discharge experience. However, the reasons that stand for the discharge contributing moderately might be due to the fact that many issues could arise at the discharge point which could have an impact on the satisfaction. These factors are related to extra fees billed, how long it took to finalize the discharge, or any problems faced in completing the formalities of discharge.

Our results are clearly supported by the argument of Mehta (2015) and Rodriguez (2009). The charging process in the healing center begins once the patient enters until finish treatment (Mehta, 2015). This process contains every one of the exercises basic for getting ready bill to submit for patients and private suppliers to acquire repayment for the doctor's facility (Rodriguez, 2009).

Having the staff confer patient cash related duties ahead of time, and also merging a method of precise charging can do contemplates in completing off an all-around positive and satisfying information for your patient (Herrin, 2008).

Then, we can conclude that:

***H6: The level of satisfaction of the Hospital Discharge and check-out procedures has a positively moderate impact on the overall patient satisfaction.***

Moreover, an overall regression testing was done to all the variables. The overall regression done with dependent variable General Evaluation of Stay, several variables

showed to be constants or have missing correlations, and thus will be deleted from the analysis. Moreover, some variables have a sig value=1.000, so we had to exclude them, too. These variables are (Refer to Appendix D- Table 26):

- Long waiting time
- Waiting time < 2 hours
- Received patient's booklet
- Waiting time < 2 hours
- Accident in hospital
- Obstacles / problems in completing formalities of discharge
- Difficult access to the hospital

After rerunning the regression, the following result has appeared:

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911 <sup>a</sup>	.830	.830	.264

a. Predictors: (Constant), First hospitalization , Accident in hospital, Justified Waiting time, Long waiting time in ER after decision of admission, Justified waiting time in ER after decision of admission, General evaluation of nursing care, General evaluation of medical care

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4885.063	7	697.866	9988.905	.000 <sup>b</sup>
	Residual	997.590	14279	.070		
	Total	5882.653	14286			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), First hospitalization , Accident in hospital, Justified Waiting time, Long waiting time in ER after decision of admission, Justified waiting time in ER after decision of admission, General evaluation of nursing care, General evaluation of medical care

We also have a p-value of 1.000 for the factor “Justified Waiting time” (Refer to Appendix D- Table 27), so we exclude it and rerun the test again like follows:

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911 <sup>a</sup>	.830	.830	.264

a. Predictors: (Constant), First hospitalization , Accident in hospital, Justified waiting time in ER after decision of admission, Long waiting time in ER after decision of admission, General evaluation of nursing care, General evaluation of medical care

#### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4885.063	6	814.177	11654.539	.000 <sup>b</sup>
	Residual	997.590	14280	.070		
	Total	5882.653	14286			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), First hospitalization , Accident in hospital, Justified waiting time in ER after decision of admission, Long waiting time in ER after decision of admission, General evaluation of nursing care, General evaluation of medical care

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.583	.014		41.488	.000
	Long waiting time in ER after decision of admission	-.212	.009	-.162	-23.913	.000
	Justified waiting time in ER after decision of admission	.282	.007	.157	38.855	.000
	Accident in hospital	.821	.009	.396	89.446	.000
	General evaluation of nursing care	.206	.012	.206	17.377	.000
	General evaluation of medical care	.092	.013	.086	6.974	.000
	First hospitalization	.633	.007	.482	91.040	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 19: Overall regression – rerun 2*

Table 19 shows the variables having a p-value less than 0.05 level of significance, which in turns contribute to the overall patient satisfaction.

As well, the R<sup>2</sup> value is equal to 0.83, which indicates that 83% of the patient satisfaction is related to the following mentioned factors:

- Long waiting time in ER after decision of admission
- Justified waiting time in ER after decision of admission
- Accident in hospital
- General evaluation of nursing care
- General evaluation of medical care
- First hospitalization



The above mentioned results show the most important factors contributing in the overall patient satisfaction. This means that among all the variables in the questionnaire at AWMV, the patients are likely to focus on specific factors to determine their overall satisfaction. As well, as we can see, these factors are not restricted to a specific field of expertise but having hybrid factors involved, and which confirm with the literature review previously discussed.

Moreover, looking in parallel through the quantitative analysis and the documentation analysis regarding the effect of the performance of the nursing this administration on the overall patient satisfaction (hypothesis # 3) and that of services administration in complaints, we can clearly see that the results were in the same line having this administration recording the highest level of complaints and at the same time being one of the biggest contributors of patient satisfaction in the survey study that assures its importance.

However, the comparison of the results we figured out of both quantitative and the documentation analysis regarding the support services in the survey and the complaints registered for the services administration, we can see the contradicting results since although these services showed a low impact on the overall patient satisfaction, it is the most significant cause of dissatisfaction since even though the factor support services is not a big contributor, still the lack of cleanliness, logistic services, dietary services, and hotel and environmental services lead patients to register complaints but not to the level that would affect their overall satisfaction compared to nursing and medical administrations.

Furthermore, regarding the analysis of the B values:

- Long waiting time in ER after decision of admission factor has a B value = -0.212, which means that it is negatively correlated with the overall patient satisfaction and the long waiting time affects patients in a negative way leading to dissatisfaction and complaints.
- Justified waiting time in ER after the decision of admission factor has a B value = 0.282, which means that it is positively correlated with the overall patient satisfaction where patients are concerned with the time spent in their healthcare journey and evaluate their satisfaction in a certain stage on this factor.
- General evaluation of nursing care has a B value = 0.206 and General evaluation of medical care has a B value = 0.086, which means that these two factors are positively correlated with the overall patient satisfaction. This means that patients do evaluate their satisfaction based on the general evaluation of the medical and nursing care regardless of certain dissatisfaction they would face in some services related to them.
- Accident in hospital has a B value = 0.821, which means that it is positively correlated with the overall patient satisfaction. This shows that in addition to the general evaluation of the nursing care, patients are concerned to the factor of accidents in hospital and consider it an important factor determining their satisfaction.
- First hospitalization has a B value = 0.633, which means that it is positively correlated with the overall patient satisfaction.

The literature has served a lot in the topics of the importance of every factor contributing to overall patient satisfaction.

The results we have reached are consistent to what Otani (2011) stated that the inpatient satisfaction being a substantial fragment of the overall experience; as well as Zeineldine (2006) argued that the patient satisfaction is an accumulative paradigm with several facets and factors.

Regarding the waiting times in the Emergency Room and the B values resulted in our study regarding the long waiting time and the justified waiting time in ER after decision of admission were searched before and complies with the findings of Trzeciak (2016). As for accidents in the hospital, B values are in the line of the literature where Reiling & Hghes /Murphy (2008) searched the impact of the structure and facilities and its impact on the patient's safety and thus on the overall patient satisfaction.

Moreover, the analysis of the B values regarding the medical care and first hospitalization having a positive correlation with the overall patient satisfaction are also in the line of literature review as Yogesh (2011), Lake (2016), and Vieth (2006) argued before.

The overall patient satisfaction =  $0.583 - (0.212 * \text{Long waiting time in ER after decision of admission}) + (0.282 * \text{Justified waiting time in ER after decision of admission}) + (0.821 * \text{Accident in hospital}) + (0.206 * \text{General evaluation of nursing care}) + (0.92 * \text{General evaluation of medical care}) + (0.633 * \text{First hospitalization})$

## **4.5. Conclusion**

This chapter started with an overview of the main sections, followed by definition of the analysis frameworks followed in this research. Then, we have done a documentation analysis and mentioned the major highlights we have reached. After

that, the quantitative data was investigated using reliability analysis, descriptive statistics, ANOVA, regression analysis, and correlation analysis. However, since this paper adopts a mixed methodology, the last section of this chapter included the main results after crosschecking the outcome of the documentation and quantitative methods.

In this chapter, we have tested the hypotheses of this research in an attempt to have clear results concerning the impact of the performance of different departments on the overall patient satisfaction. We have discovered the main factors the population at AWMV do concern about and build their overall satisfaction upon. As well, we have compared both results of documentation and quantitative analysis performed to see the level of compliance of these two studies. There was compliance in the results of several departments such as the nursing and medical departments. Such conclusions show the most important factors in these fields of expertise patients care about. At the same time, the departments registering the highest number of complaints highlight on the most important services patients do care about and declare their dissatisfaction from. On the other hand, results for some departments were different, as for the support services, where these results appeared to have high complaints that direct us to the importance of these services to patients at the time of having the hospital accommodations experience having a low positive impact on the overall patient satisfaction.

The results we had in our paper are in line of the literature and comply with the main attributes of patient satisfaction previous researches talked about. The findings of this paper conform to previous findings regarding that the healthcare sector is different and unique in the performance measurement due to different characteristics and factors involved. Moreover, the documentation analysis matches with what

Mosadehard (2013) stated about the definition of the healthcare service quality being impossible to unify for the difficulty of reproducing the same service twice.

In the coming chapter, we will provide a summary of the research aim and the main findings, with a linkage of the hypotheses with the methodology and findings. A demonstration of the validity of this paper will be discussed, along with the research limitations and implications.

## **5. CHAPTER 5 – CONCLUSIONS AND RECOMMENDATIONS**

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### **5.1. Introduction**

This chapter presents the conclusions drawn from this thesis evaluating the main determinants of patient satisfaction and the impact of each factor on the overall patient satisfaction.

The main finding will be presented based on the research questions, hypotheses, methodology, and tests used. Then, we will address the validity of this paper, and finally, tackle its limitations and suggestions for future research.

### **5.2. Summary of the Main Findings**

The main results of the documentation analysis show that the Nursing Administration registers the highest percentage of the complaints, followed by the Services Administration and the Medical Administration.

On the other hand, to fulfill the practical part of our research (quantitative analysis), we have analyzed data from AWMV that has been collected over ten years (2007-2017). This data was a result of the questionnaire distributed by AWMV substantially for measuring the patients' satisfaction levels. However, we found that the research data has relatively high internal consistency as the Cronbach's Alpha value registered 0.897.

The vast majority of respondents have a positive perception of the AWMV services with a population's characteristics that assure that it has covered a wide variety of people.

Moreover, the results showed a normal distribution between the different departments of the AWMV, which also serves for the validity of the study; as people had provided an assessment of the various hospital departments.

However, we have tried to relate every survey question to one of our study's hypothesis. Thus, we have divided the questions into six groups; every group was related to a hypothesis. Then, we have analyzed the collected data accordingly.

The below table summarizes the outcome of the leading research question that was trying to assess the factors that impact the patients' satisfaction within the healthcare organizations:

<b>Hypotheses</b>	<b>Findings</b>
H1: The level of satisfaction in the reception unit has a positive impact on the overall patient satisfaction	The factor good reception in admission has a low significance contributing of about 10.7 % on the overall patient satisfaction. The waiting time, getting enough information about the admission process, and good reception are the main factors contributing in patient satisfaction
H2: The level of satisfaction in the Emergency Department has a positive impact on the overall patient satisfaction	15.4% of the overall patient satisfaction is due to the patients' evaluation of the Emergency experience.  The only predictor contributes to the patient satisfaction with regards to the Emergency Department factors is waiting time.

<p>H3: The level of satisfaction in the Nursing unit has a positive impact on the overall patient satisfaction</p>	<p>The Nursing unit has a moderate significant positive impact of 33.7% on the overall patient satisfaction.</p> <p>The only predictor contributes to the patient satisfaction with regards to H3 is accidents in hospital, in addition to the General evaluation of nursing care that also has an impact on the overall patients' satisfaction.</p>
<p>H4: The level of satisfaction in the Medical care unit has a positive impact on the overall patient satisfaction</p>	<p>The performance of the Medical care unit has a low positive impact on the overall patient satisfaction sharing with 2% of the total satisfaction.</p> <p>The Medical factor "Resident availability" has an impact on patient satisfaction regarding H4.</p>
<p>H5: The level of satisfaction of the Hospital accommodation experience has a positive impact on the overall patient satisfaction</p>	<p>The Hospital accommodation experience has a positively low impact on the overall patient satisfaction of 5%.</p> <p>The factor adequate food temperature has an impact on patient satisfaction.</p>
<p>H6: The level of satisfaction of the Hospital Discharge and check-out procedures has a positive impact on the overall patient satisfaction</p>	<p>The Hospital Discharge and check-out procedures have a positively moderate impact on the overall patient satisfaction of 33.2%</p> <p>The factors discharge instruction received &amp; explained, and obstacles / problems in completing formalities of discharge have an impact on patient satisfaction.</p>

*Table 20: Summary of Hypotheses and Findings*



### **5.3. Validity of the Research**

The following section is clarifying the research validity through assessing the results and implications of accuracy (Trochim and Donnelly, 2001). In other words, it is a trial of proving the external, construct, and internal validity of this study.

#### **External Validity**

This research has been conducted mainly through a quantitative methodology studying the whole population of AWMV, which yielded a reliability level with Cronbach's Alpha of 89.7% higher than the reliability coefficient of 70%. This means that the research data has relatively high internal consistency.

This population includes all patients who have benefited from the AWMV services. We have chosen to study the patient satisfaction survey fulfilled over the past ten years (2007-2017). Note that the study hasn't included the year 2018 because the survey was modified in January of that year. As for the qualitative method, we've studied the complaints filed for the same interval of time as the quantitative method.

In this research, we have deduced the patient satisfaction determinants from previous studies. And then, through the quantitative techniques used, we had the chance to confirm these variables.

This study represents a useful tool, to the quality and customer service department, for significant corrective actions to address as well as for modifications on the questionnaire to be executed.

However, despite the fact this study had a limited population restricted by AWMV one, this study could also serve for the Lebanese hospitals having similar mission, vision as well as similar population depending heavily on public guarantors' patients (Ministry of Health, Army, Internal Security, NSSF, and COOP).

As per the above, this paper had a strong external validity; and thus, conclusions and inferences can be generalized to the whole population, specifically since most of the outcome resonates with previous papers and theories (Frambach, van der Vleuten, and Durning, 2013).

### **Construct Validity**

The construct validity is generally used to determine the degree to which the factors used for patient satisfaction can interpret the above-mentioned theoretical review. Hence, this type of validity is primarily associated with the quantitative methodology (Trochim and Donnelly, 2001). In the current study, it is clear that the assessed factors clarify patient satisfaction as deduced from preceding similar researches; then, the research has strong construct validity. As well, a triangulation was done using both the complaints and the questionnaire done at the institution.

### **Internal Validity**

Internal validity refers to how well an experiment is done, especially whether it avoids confounding (more than one possible independent variable [cause] acting at the same time). The less chance for confounding in a study, the higher its internal validity is (Trochim and Donnelly, 2001).

In this research, there was no sample size, but a whole population studied and was large enough to prove a high-reliability level. Moreover, we were able to demonstrate a strong correlation between patient satisfaction as a dependent variable, and most of the independent studied variables; Cronbach's Alpha was 89.7%.

The above discussions prove that this research had an adequate internal validity for having a significant and representative sample of the population (Frambach et al., 2013).

#### **5.4. Research Limitations**

In both the qualitative and the documentation studies, data was drawn and analyzed based on a hospital located in the Al Shouf region where no other hospital of the same caliber found.

One of the limitations is that the output of the paper cannot be generalized as the sample/population stands for AWMV institution itself, since it was a case study done on one hospital.

Nevertheless, this study might not be transferable to other hospitals having different target segments as private patients and with different goals to achieve.

The main limitation of this study is that the questionnaire was changed in January 2018; added to that the data was aggregated quarterly. Thus, it wasn't mathematically as powerful as having daily or monthly data.

Moreover, due to the insufficient data fulfilled with patients regarding the medical department of admission, this study does serve as a recommendation for the whole hospital and not looking in-depth in the departments having the highest claims or negative response from patients.

Besides, in this research, no primary data was collected to understand the reasons standing behind dissatisfaction found, and limited ourselves to the written documents we had without further investigations that could have created another bias.

As well, in line with the literature review regarding the high impact of support services on patient satisfaction, it is essential to mention that these services were not covered well in the questionnaire. We had a conflict recording these services 32% of the total complaints registered in the documentation analysis, although of having low positive impact of hospitalization experience in the quantitative analysis. This conflict might be due to the reason for the way the questions were developed in the survey not showing the main areas of these services or due to the fact that these services might not be a leading contributor, comparing its importance with that of nursing and medical care.

Furthermore, the questionnaire of the quantitative method was available in the Arabic language only that was a limitation for the illiterate respondents that don't know how to write and read.

Another limitation is that we, as researchers, didn't have any input while setting the questionnaire since the questionnaire was put and administrated for the past ten years at AWMV limited by dichotomous questions in addition to the Likert scale approach that weakened the study to have mathematical power in the results found. However, another type of questionnaire would have served to improve the level of investigation of the different factors.

## **5.5. Future Research Perspectives**

Healthcare providers are striving to excel through generating a perfect image in their patients' mindset by differentiating themselves from their competitors through maintaining a very high level of patient satisfaction. (Øvretveit, 1992; Mosadeghrad, 2013; Izadi, Jahani, Rafiei, Masoud & Vali, 2017; Javed & Ilyas, 2018). So, to add value to this study and reach more reliable conclusions, it is recommended to enlarge

the sample size and include additional healthcare institutions. Thus, results and findings can be generalized for a specific segment in the sector.

It would be exciting to compare and test if hospitals of similar target segments from different geographical zones have the same patient satisfaction factors.

Also, it would be also interesting to look if the outcomes for AWMV can be applied for similar hospitals, in different Lebanese regions, with similar public guarantors' budgets, segments of patients, and competition level.

Moreover, further studies would be studying AWMV hospital with the main competitors for it in the sector and analyzing the results.

However, out of the conclusions and findings of this study, it would be practical to re-do the same study based on the updated survey; in an attempt to find out if the finds and points discovered in this paper have been covered in the new survey as well as if matrix scale has been implemented or still limited by the dichotomous and Likert scales.

Finally, other researchers can focus on this paper for further studies trying to investigate the factors of every department alone and the main reasons behind dissatisfaction.

## **5.6. Research Implications**

The implications of this research can be categorized into theoretical and managerial or professional implications.

### **Theoretical Implications**

The main implication of this paper is represented having this study the first conducted in Lebanon regarding the contributors of patient satisfaction parallel with studying the complaints and analyzing the effect of each factor on the overall satisfaction.

Moreover, the definition of the customer satisfaction adopted by previous scholars as being impossible to be defined by one due to the change of the results from one patient experience to another where several factors immerge in specifying the satisfaction was validated in this paper in the case study being conducted at AWMV where it was proved by the previously suggested factors, mainly by the nursing administration services, hospital discharge and check out procedures.

### **Managerial Implications**

The managerial implication of this paper lies in the importance of the assessment done of the factors affecting patient satisfaction in the old survey in an attempt to look over at the modified one being recently implemented in the hospital if it is reasonable and targets the main issues being missed before, or it is in need for further changes and/or corrective actions to be done of better service and higher patient satisfaction level to be obtained.

However, based on the documentation analysis done, a high percentage of claims in the services administration was shown and not reflected in the survey. This result might give us a clue for the questionnaire to be edited, showing these support services and having specific questions related to it.

Moreover, during the "SPSS" testing, the system had removed too many factors for having missing correlation, which leads us to a corrective action in reorganizing the questions.

On the other hand, the main factors found in our case study contributing to patient satisfaction are waiting time in ER after decision of admission, accident in hospital, general evaluation of nursing care and medical care, and first hospitalization. These factors correlate to what we have found in the literature as being important factors affecting patient satisfaction in addition to certain support services not shown in the questionnaire as justified before. And thus, these results would help the hospital concentrate on these fields for continuous improvement projects for these services and departments working for a higher level of patient satisfaction.

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## APPENDICES

## Appendix A: Complaint Form

	<i>QUALITY SYSTEM</i>	CODE : QS-FO-05	
	تقديم شكوى أو ملاحظة	Edition 2	Page 1 of 1

<u>الموضوع:</u>
<u>التوقيع:</u>
<u>التاريخ:</u>
صاحب الملاحظة: <input type="checkbox"/> مريض <input type="checkbox"/> زائر <input type="checkbox"/> مرافق <input type="checkbox"/> <input type="checkbox"/> الاسم الكامل: _____ العنوان: _____ رقم الهاتف: _____
هل تم التبليغ مسبقاً عن موضوع الملاحظة: <input type="checkbox"/> نعم <input type="checkbox"/> كلا إذا كان الجواب نعم: - إسم وصفة الشخص المبلغ: _____ - تاريخ التبليغ: _____
<u>خاص بقسم الجودة:</u> الرقم التسلسلي: الصندوق: تاريخ الاستلام: تاريخ ارسالها للجهة المعنية: رقم استمارة تحسين الجودة:

نأمل إدراج الاسم بالكامل ووسيلة الاتصال، ليتم مراجعتكم، واجابتكم عن موضوع المساءلة

Figure 3: Complaint Form

## Appendix B: Patient Satisfaction Questionnaire

قسم القسم



# رأيكم يهمنا

إن إدارة مستشفى عين وزين، وحرصاً منها على تقديم أفضل الخدمات، وأرفع مستوى من العناية، بغية تحسين إقامتكم في المستشفى، تأمل - شاكراً تعاونكم - بملء هذه الاستمارة وإيداعها لدى رئيسة القسم التمريضي أو لدى كاتبة القسم حيث تتواجدون، علماً أن هذه المعلومات ستبقى سرية داخل المغلف الخاص بالاستمارة، مع التأكيد بأن هذه الملاحظات سوف تؤخذ بعين الاعتبار للارتقاء لأفضل درجات الأداء.

لتقديم أي شكوى أو ملاحظة، أعدت الإدارة نموذجاً خاصاً لهذه الغاية متواجداً بجانب صندوق الآراء والملاحظات في جميع صالات الانتظار.

ملاحظة: الرجاء وضع علامة  في الخانة التي ترمز لإجاباتكم.

### معلومات خاصة بالمريض

١- الاسم (اختياري) \_\_\_\_\_

٢- العمر \_\_\_\_\_

٣- الجنس:  ذكر  أنثى

### معلومات عامة

٤- القسم الاستشفائي: \_\_\_\_\_

٥- الطبيب المعالج (اختياري): \_\_\_\_\_

٦- هل واجهتك أي صعوبة في الوصول إلى المستشفى:  نعم  كلا

إذا كان الجواب نعم، حدد ما هي: \_\_\_\_\_

٧- مائى الاستمارة:  المريض نفسه  مرافق



### الإستقبال في المستشفى:

قسم ادخال المرضى: (إذا كان الدخول عن طريق الحجز)

- ٨- هل تم استقبالك بشكل جيد ولائق من قبل موظفي قسم ادخال المرضى؟  نعم  كلا
- ٩- هل تلقيت المعلومات الكافية عن كيفية استكمال معاملات الدخول وعن مكان ورقم غرفتك؟  نعم  كلا
- ١٠- هل انتظرت طويلاً قبل الدخول الى غرفتك؟  نعم  كلا
- إذا كان الجواب نعم حدد فترة الانتظار: اقل من ساعة  بين الساعة والساعتين  اكثر من ساعتين
- ١١- هل كانت مدة انتظارك قبل الدخول الى غرفتك مبررة لك؟  نعم  كلا
- ١٢- هل تم تسليمك الكتيب الخاص بالمستشفى (دليل المريض):  نعم  كلا
- دائرة الطوارئ:** (إذا كان الدخول عبر الطوارئ)
- ١٣- هل تم استقبالك بشكل جيد ولائق عند وصولك الى الطوارئ:  نعم  كلا
- ١٤- هل تم الاعتناء بك خلال ربع الساعة الأولى لوصولك من قبل:  نعم  كلا
- الفريق التمريضي:  
- طبيب الطوارئ:
- ١٥- هل تلقيت التوضيح الكافي من قبل الطبيب لتشخيص حالتك الصحية وسبب دخولك الى المستشفى:  نعم  كلا
- ١٦- بعد أن تقرر دخولك الى المستشفى هل انتظرت طويلاً قبل الدخول الى غرفتك:  نعم  كلا
- إذا كان الجواب نعم حدد فترة الانتظار: اقل من ساعة  بين الساعة والساعتين  اكثر من ساعتين
- ١٧- هل كان انتظارك في غرفة الطوارئ مبرراً لك:  نعم  كلا

### في غرفتك:

- ١٨- هل تم استقبالك خلال ربع الساعة الأولى لوصولك إلى الغرفة:  نعم  كلا
- ١٩- هل تم استقبالك من قبل الممرضة المسؤولة:  نعم  كلا
- ٢٠- هل تلقيت المعلومات الكافية عن المحتويات والنظام داخل القسم (كيفية استعمال الجرس، مواعيد الزيارات، طريقة استعمال الهاتف، موعد تقديم الوجبات، ٠٠٠):  نعم  كلا

### العناية التمريضية:

- ٢١- هل كان يتم توضيح وشرح أي عمل قبل تنفيذه (عمل تمريضي، فحوصات مخبرية، صور شعاعية...):  نعم  كلا
- ٢٢- هل كنت تتلقى المساعدة اللازمة عند الطلب (فرع الجرس، المشي، تناول الطعام، النهوض من السرير...):  نعم  كلا
- ٢٣- هل كنت تتلقى مخفف للألم عند الحاجة:  نعم  كلا
- ٢٤- هل أنت راض عن طريقة النقل داخل المستشفى لاجراء اي فحص (صورة، تطهير، عملية جراحية، ...):  نعم  كلا
- إذا كان الجواب كلا، فما هو السبب: \_\_\_\_\_

٢٥- هل تعرضت لأي حادث خلال إقامتك في المستشفى  نعم  كلا

إذا كان الجواب نعم، فما هو:

٢٦- كيف تقيم العناية التمريضية التي تلقيتها. جيد جداً  جيد  وسط  غير مقبول

### العناية الطبية:

٢٧- هل كان يزورك طبيبك يومياً:  نعم  كلا

٢٨- هل كان يتم التوضيح والشرح من قبل الطبيب عن تطور حالتك الصحية، علاجك، الفحوصات المخبرية والشعاعية.

مدة إقامتك في المستشفى...:  نعم  كلا

٢٩- هل كان يتواجد الطبيب المناوب عند الضرورة الطبية:  نعم  كلا

٢٨- كيف تقيم العناية الطبية التي تلقيتها: جيد جداً  جيد  وسط  غير مقبول

### الإقامة في المستشفى:

القسم الذي تواجدت فيه:

٢٠- مرتب ونظيف:  نعم  كلا

٢١- منظم وهادئ:  نعم  كلا

### الغرفة:

٢٢- هادئة ومريحة:  نعم  كلا

٢٣- مرتبة ونظيفة:  نعم  كلا

٢٤- حرارتها معتدلة:  نعم  كلا

٢٥- الحمام مرتب ونظيف:  نعم  كلا

### الطعام:

٢٦- الوجبات متنوعة:  نعم  كلا

٢٧- نوعية ونظافة جيدة:  نعم  كلا

٢٨- الكمية كافية:  نعم  كلا

٢٩- الحرارة مناسبة:  نعم  كلا

٤٠- مواعيد تقديم الوجبات مناسبة:  نعم  كلا

### تعليمات الخروج:

٤٠- هل بلغت مسبقاً بموعد مغادرة المستشفى، طريقة متابعة

العلاج والحماية في المنزل:  نعم  كلا

٤١- هل واجهتك أي مشكلة في إنهاء معاملات الخروج:  نعم  كلا

إذا كان الجواب نعم، حدد ما هي:

**تقييم للإقامة في المستشفى:**

٤٢- هل هي المرة الأولى التي تدخل فيها إلى مستشفى للعلاج؟  نعم  كلا

إذا كان الجواب كلا، حدد:  مستشفى عين وزين  مستشفى آخر

٤٣- كيف تقيم تطور حالتك الصحية خلال فترة إقامتك في المستشفى:  تحسّن ملحوظ  دون تحسّن

٤٤- هل ستعود إلى المستشفى إن احتجت لعلاج أو تصحح معاركك بالمعالجة فيها:  نعم  كلا

٤٥- كيف تقيم إقامتك في المستشفى:  جيد جداً  جيد  ووسط  غير مقبول

**هل لديك ملاحظات أخرى:**

شكراً جزيلاً لتعاونكم

QS-FO-03 (Edition 2)

Figure 4: Patient Satisfaction Questionnaire

## Appendix C: Complaints Study

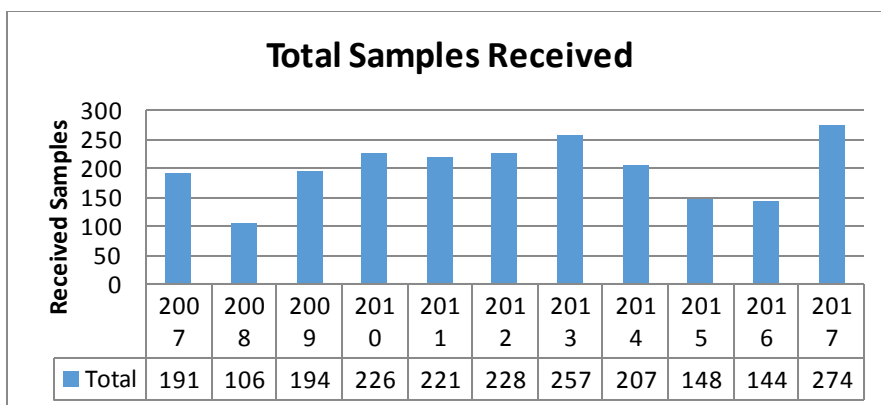


Figure 5: Total Sampled Received

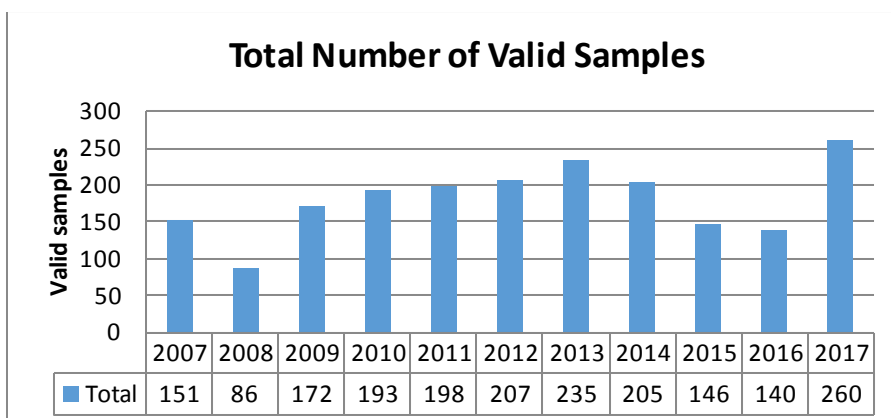


Figure 6: Total Number of Valid Samples

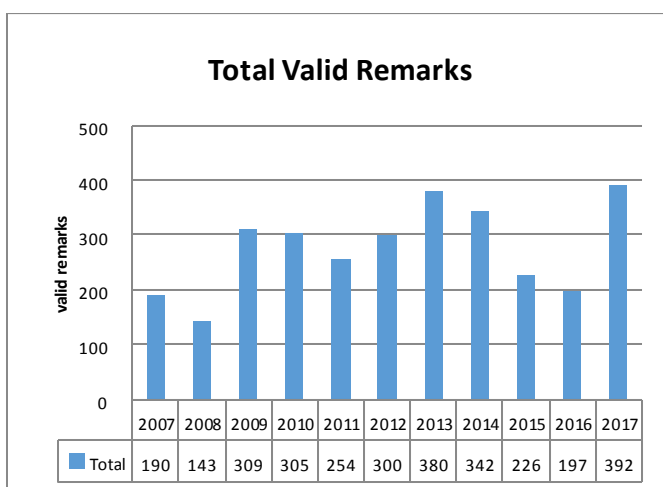


Figure 7: Total Valid Remarks

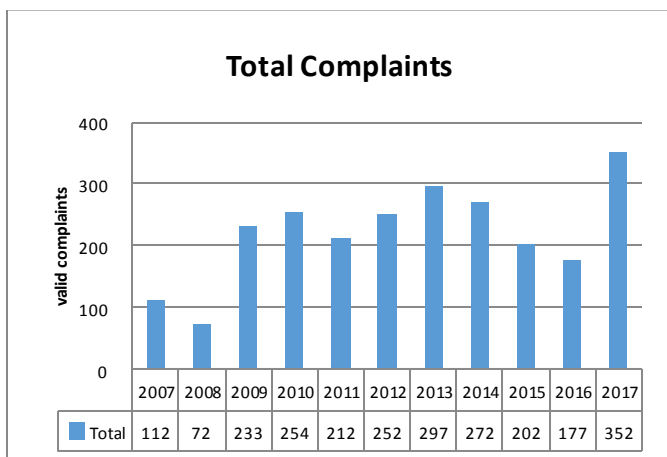


Figure 8: Total Complaints

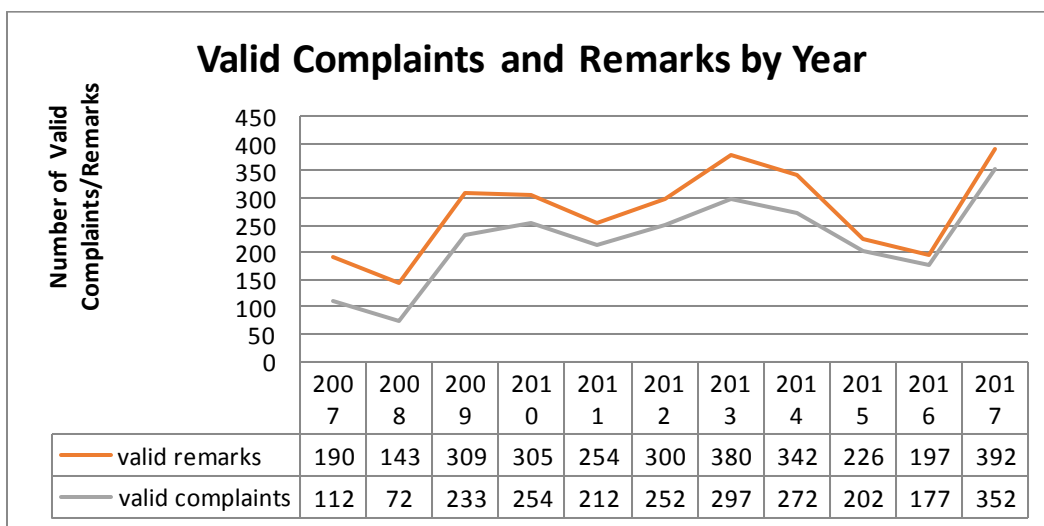


Figure 9: Valid Complaints and Remarks by Year

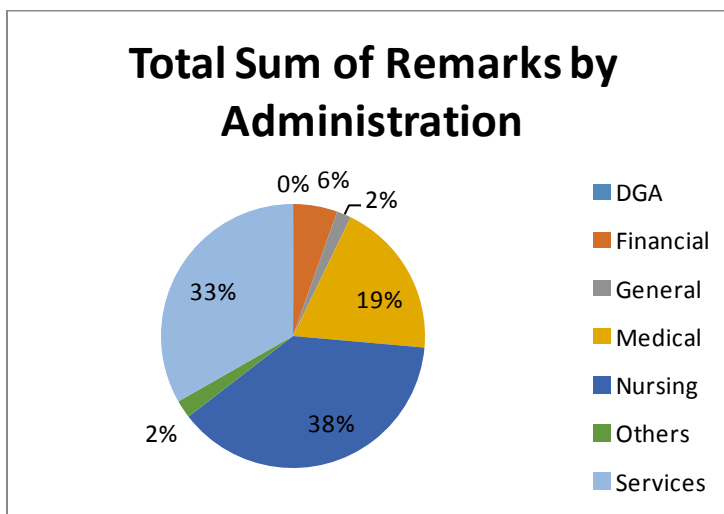


Figure 10: Total Sum of Remarks by Administration

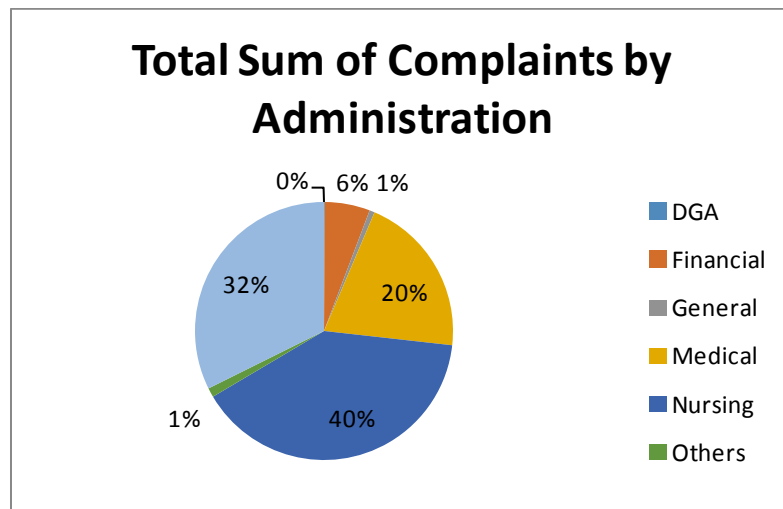


Figure 11: Total Sum of Complaints by Administration

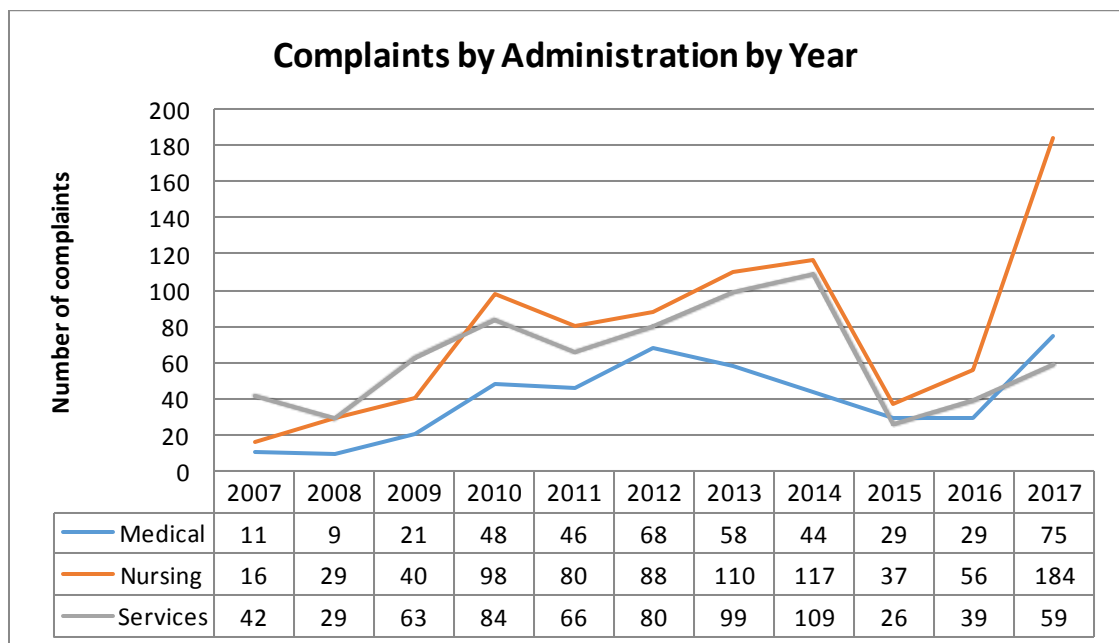


Figure 12: Complaints by Administration by Year

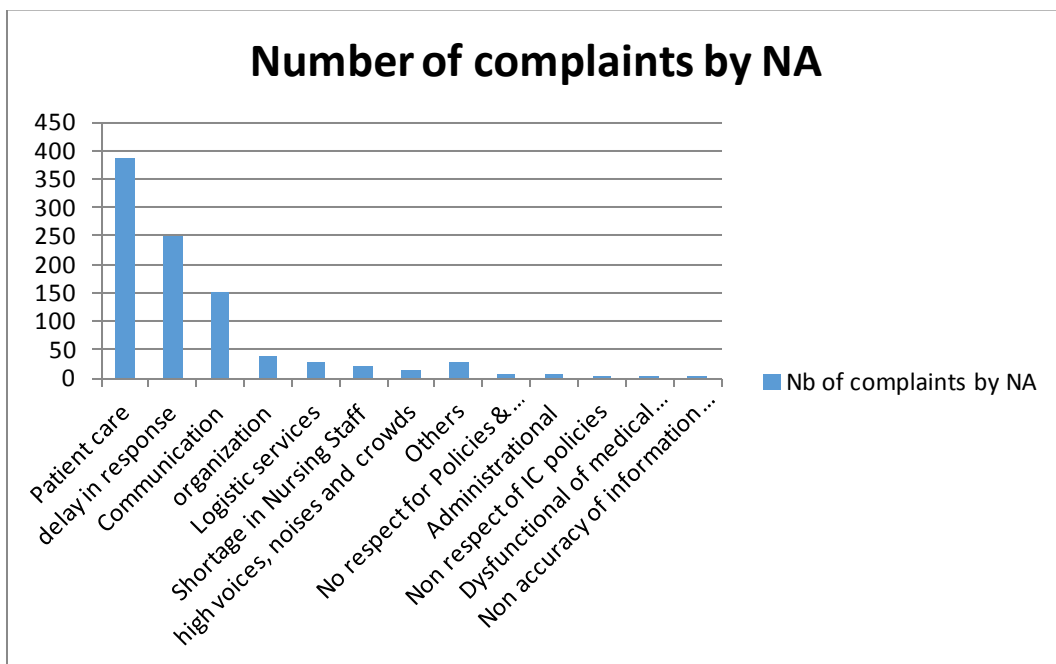


Figure 13: Number of Complaints by Nursing Administration

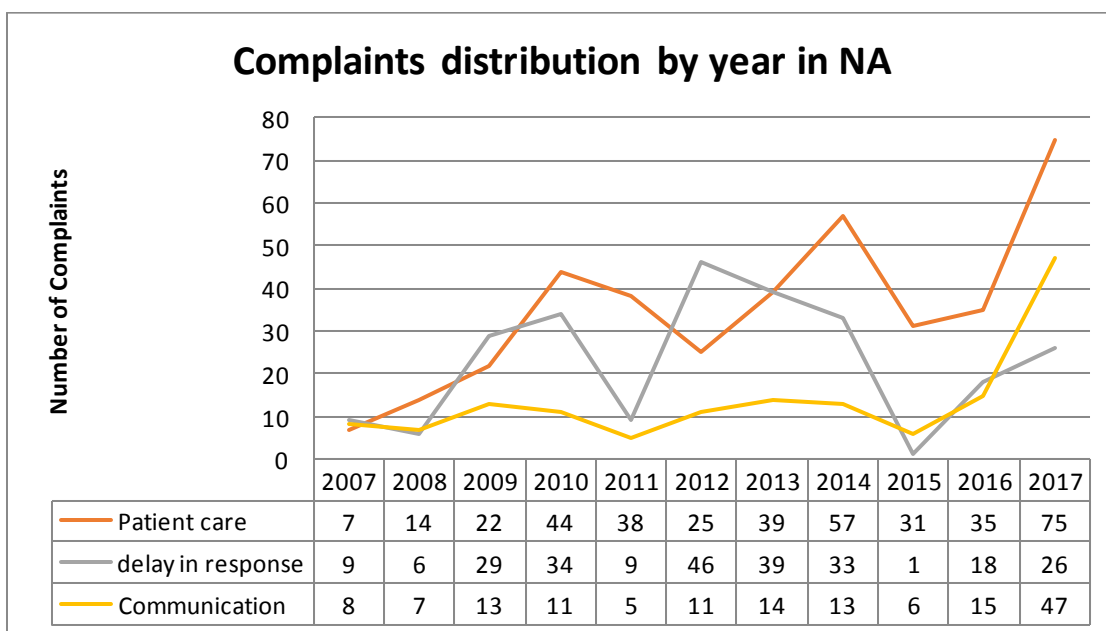


Figure 14: Complaints distribution by year in Nursing Administration

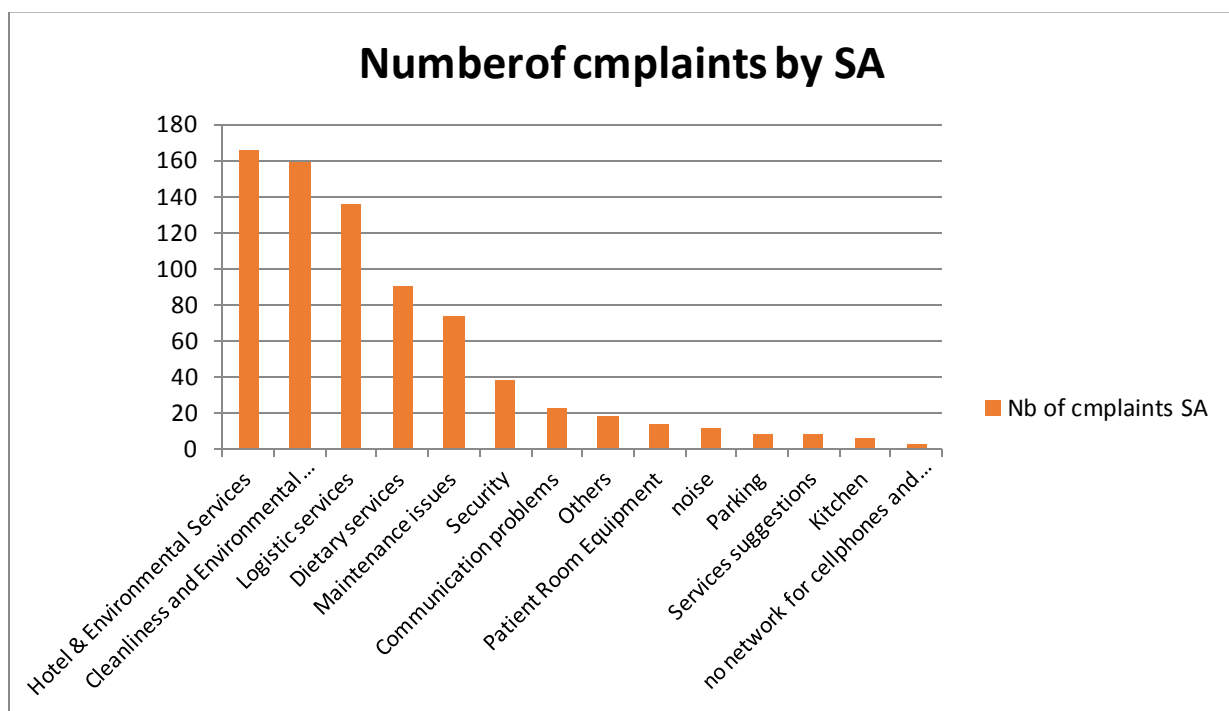


Figure 15: Number of complaints by Services Administration

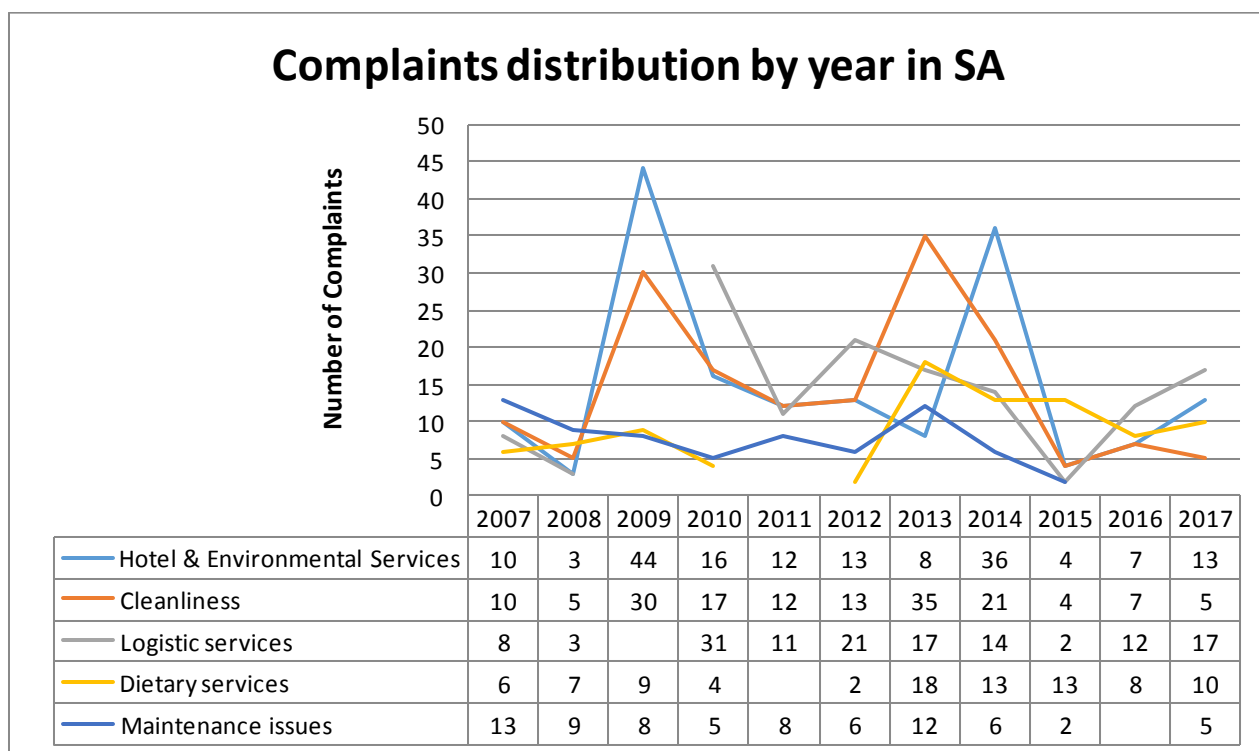


Figure 16: Complaints distribution by year in Services Administration



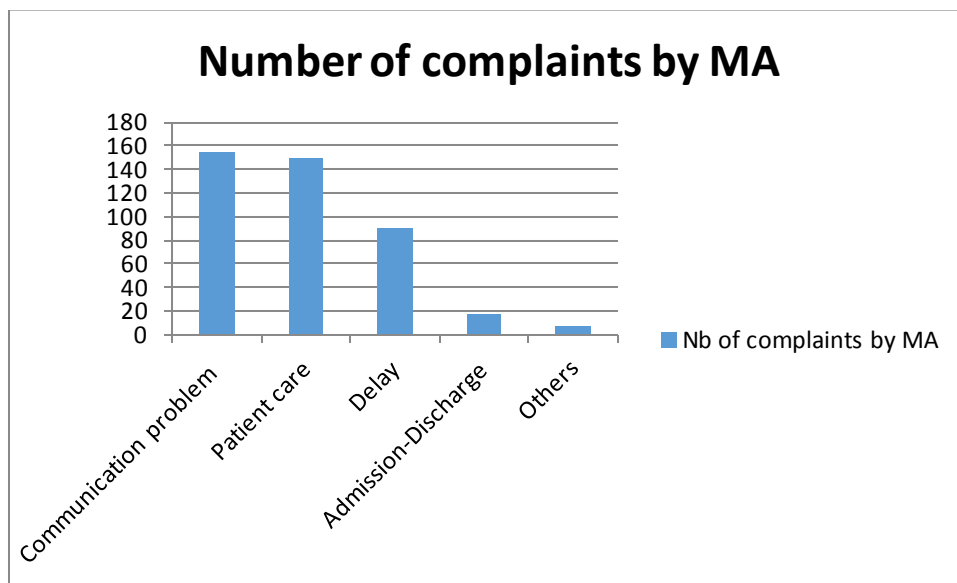


Figure 17: Number of complaints by Medical Administration

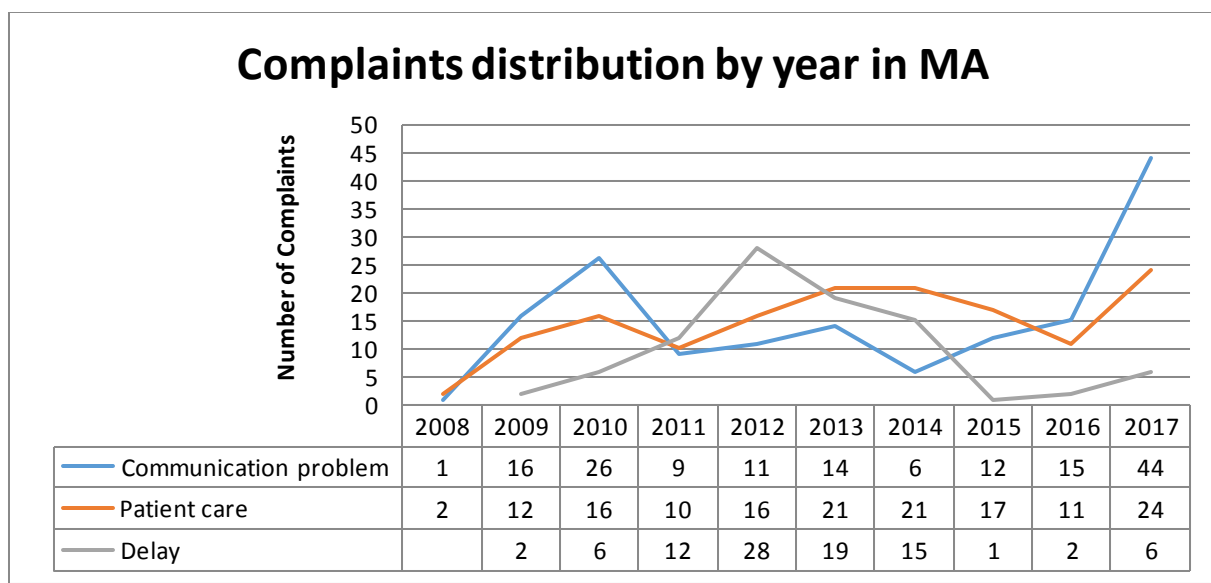


Figure 18: Complaints distribution by year in Medical Administration

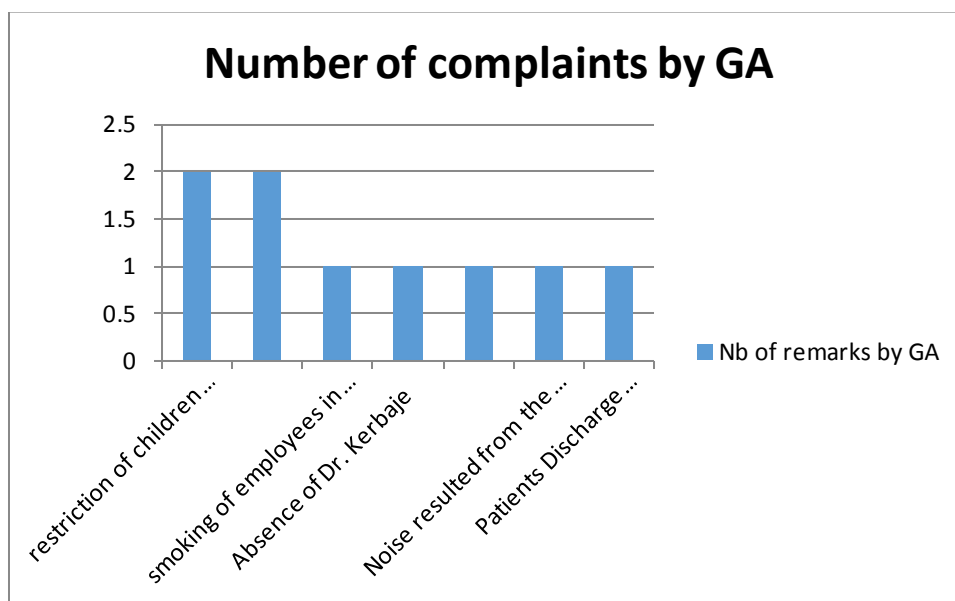


Figure 19: Number of complaints by General Administration

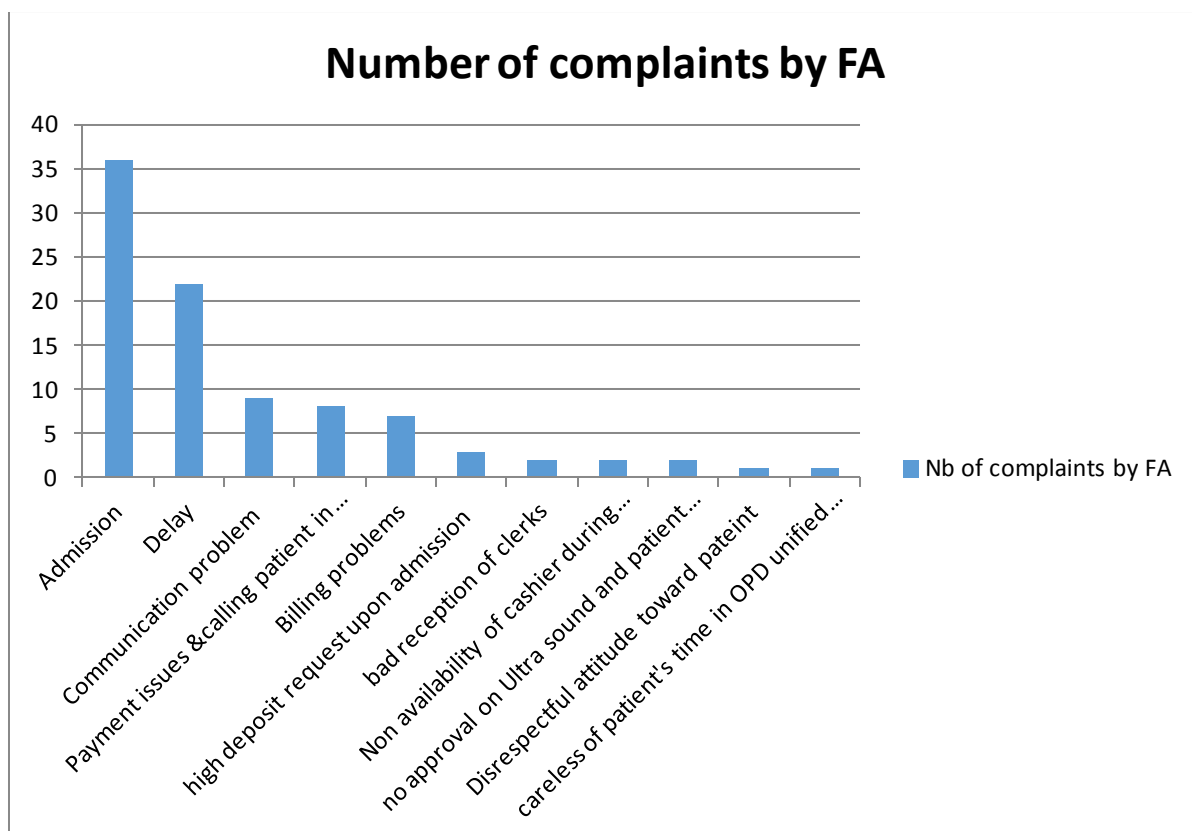
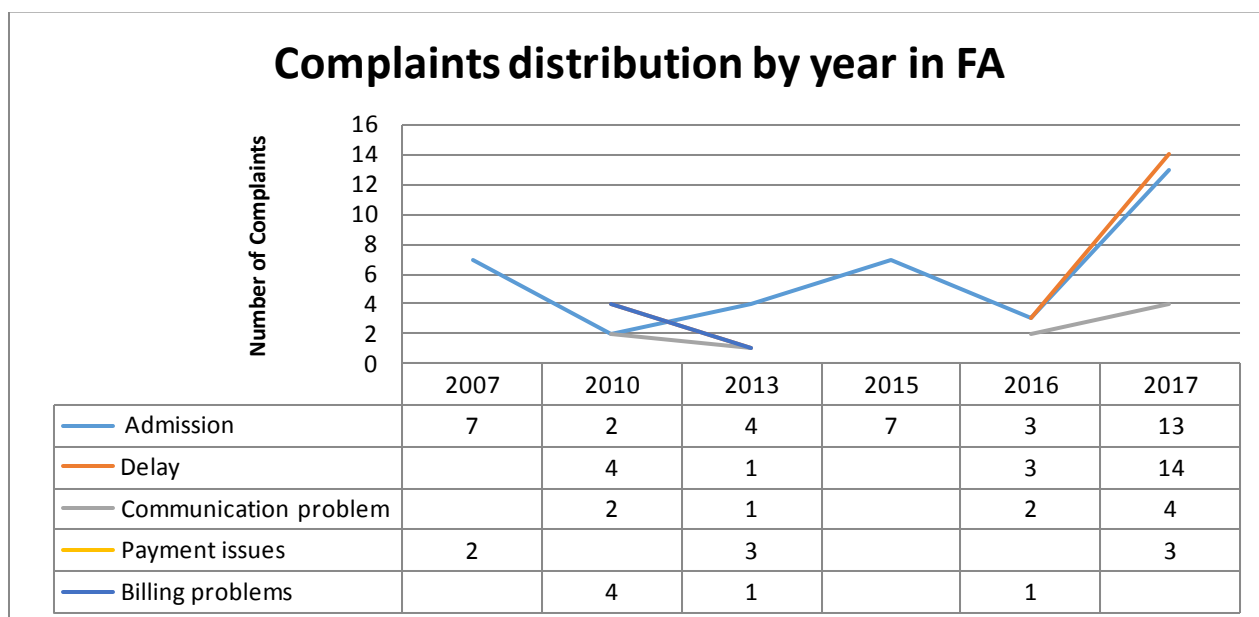


Figure 20: Number of complaints by Financial Administration



*Figure 21: Complaints distribution by year in Financial Administration*

## Appendix D: Quantitative Analysis

	Frequency	Percent	Valid Percent	Cumulative Percent
<15	1605	5.8	13.4	13.4
15-35	3674	13.2	30.7	44.1
36-50	2333	8.4	19.5	63.6
Valid 51-65	1874	6.7	15.7	79.2
66-75	1173	4.2	9.8	89.0
>75	1311	4.7	11.0	100.0
Total	11970	42.9	100.0	
Missing System	15940	57.1		
Total	27910	100.0		

*Table 21: Age of Respondents*

	Frequency	Percent	Valid Percent	Cumulative Percent
M	11194	40.1	40.9	40.9
Valid F	16196	58.0	59.1	100.0
Total	27390	98.1	100.0	
Missing System	520	1.9		
Total	27910	100.0		

*Table 22: Gender of Respondents*

	Frequency	Percent	Valid Percent	Cumulative Percent
	Surgery	3357	12.0	13.2
	Med A	3101	11.1	25.3
	Med B	2177	7.8	33.8
	Med C	1837	6.6	41.0
	Med D	2092	7.5	49.2
Valid	ICU-CCU	2544	9.1	59.2
	Pediatric	3562	12.8	73.1
	OB/GYN	2552	9.1	83.1
	Psychiatry	3009	10.8	94.9
	Geriatric A	1293	4.6	100.0
	Total	25524	91.5	100.0
Missing	System	2386	8.5	
Total		27910	100.0	

*Table 23: Respondents by department*

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.137 <sup>a</sup>	.019	.019	.620

a. Predictors: (Constant), Good reception in admission

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	177.127	1	177.127	461.405	.000 <sup>b</sup>
	Residual	9270.448	24149	.384		
	Total	9447.575	24150			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Good reception in admission

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.522	.004		621.936	.000
	Good reception in admission	.478	.022	.137	21.480	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

*Table 24: The impact of long waiting time on patient satisfaction (Adjusted)*

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.158 <sup>a</sup>	.025	.025	.638

a. Predictors: (Constant), Receiving nursing care within 15 min when arriving to ER, Good reception in ER

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	210.680	2	105.340	258.774	.000 <sup>D</sup>
	Residual	8242.810	20249	.407		
	Total	8453.490	20251			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), Receiving nursing care within 15 min when arriving to ER, Good reception in ER

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.430	.005		532.906	.000
	Good reception in ER	6.335E-015	.049	.000	.000	1.000
	Receiving medical care within 15 min when arriving to ER	7.335E-015	.035	.000	.000	1.000
	Reason of admission is explained by the physician	6.264E-015	.057	.000	.000	1.000
	Waiting time < 2 hours	.346	.008	.393	42.302	.000
	Justified waiting time in ER after decision of admission	6.751E-015	.027	.000	.000	1.000
	Receiving nursing care within 15 min when arriving to ER	.570	.036	.158	15.762	1.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

Table 25: The impact of Emergency factors on patient satisfaction

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911 <sup>a</sup>	.830	.830	.194

a. Predictors: (Constant), obstacles / problems in completing formalities of discharge, General evaluation of nursing care, Long waiting time in ER after decision of admission, Accident in hospital, Waiting time < 2 hours, General evaluation of medical care, Long waiting time, Waiting time < 2 hours, Received patient's booklet

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1323.541	9	147.060	3900.842	.000 <sup>b</sup>
	Residual	271.211	7194	.038		
	Total	1594.752	7203			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), obstacles / problems in completing formalities of discharge, General evaluation of nursing care, Long waiting time in ER after decision of admission, Accident in hospital, Waiting time < 2 hours, General evaluation of medical care, Long waiting time, Waiting time < 2 hours, Received patient's booklet

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.491	.011		44.915	.000
	Long waiting time	6.576E-013	.015	.000	.000	1.000
	Waiting time < 2 hours	-1.494E-012	.023	.000	.000	1.000
	Received patient's booklet	3.000E-012	.028	.000	.000	1.000
	Long waiting time in ER after decision of admission	-.160	.011	-.141	-14.472	.000
	Waiting time < 2 hours	-1.953E-012	.021	.000	.000	1.000
	Accident in hospital	.774	.008	.674	101.276	.000
	General evaluation of nursing care	.284	.009	.312	30.846	.000
	General evaluation of medical care	.083	.010	.089	8.634	.000
	obstacles / problems in completing formalities of discharge	-2.844E-013	.007	.000	.000	1.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

Table 26: Overall Regression



**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.911 <sup>a</sup>	.830	.830	.264

a. Predictors: (Constant), First hospitalization , Accident in hospital, Justified Waiting time, Long waiting time in ER after decision of admission, Justified waiting time in ER after decision of admission, General evaluation of nursing care, General evaluation of medical care

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4885.063	7	697.866	9988.905	.000 <sup>b</sup>
	Residual	997.590	14279	.070		
	Total	5882.653	14286			

a. Dependent Variable: General\_Evaluation\_of\_Stay

b. Predictors: (Constant), First hospitalization , Accident in hospital, Justified Waiting time, Long waiting time in ER after decision of admission, Justified waiting time in ER after decision of admission, General evaluation of nursing care, General evaluation of medical care

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.583	.014		41.487	.000
	Justified Waiting time	6.556E-014	.013	.000	.000	1.000
	Long waiting time in ER after decision of admission	-.212	.009	-.162	-23.912	.000
	Justified waiting time in ER after decision of admission	.282	.012	.157	22.862	.000
	Accident in hospital	.821	.009	.396	89.443	.000
	General evaluation of nursing care	.206	.012	.206	17.377	.000
	General evaluation of medical care	.092	.013	.086	6.974	.000
	First hospitalization	.633	.007	.482	91.037	.000

a. Dependent Variable: General\_Evaluation\_of\_Stay

Table 27: Overall regression - rerun