



Arab American University
Faculty of Graduate Studies

**The Effect of JCI Implementation on the Preoperative
Time Preparation and Patient Satisfaction –
Comparative Study between Accredited and Non-
Accredited Hospitals in the West Bank**

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Thesis Approval

The Effect of JCI Implementation on the Preoperative Time Preparation and Patient Satisfaction – Comparative Study between Accredited and Non-Accredited Hospitals in the West Bank

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Declaration

I certify that, unless otherwise recognized, the master's thesis I have submitted is the outcome of my study and that neither it nor any of its components have ever been submitted to another university or organization for a higher degree.

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Dedication

The success of this project and whatever I have done were, at first, due to the guidance and help of God.

To the great teacher Prophet Mohammad.

To my homeland Palestine.

Special gratitude and love go to my parents, who gave me hope and strength all over the road.

To my brothers and sisters with whom I have lived and enjoyed every moment.

To my wife, the one who is always there for me to say, "Yes, you can."

To my lovely little sons and supportive family that I would not be here without.

Finally, to the souls that flew up to the sky, my daughter, my son, my brother, my uncle, and my aunt.

You taught me to be patient and stand with all the loads on my shoulders; I hope you are proud of me.

I dedicate this research.

Acknowledgment

I want like to start by thanking Dr. Lubna Harazni, who served as my thesis advisor. Her office was always accessible whenever I had questions concerning my writing or research. Whenever I felt I needed it, she pointed me out correctly.

Additionally, I would like to thank the hospitals at Istishari Arab Hospital and Ramallah hospital for letting me gather data for this study. The study could not have been satisfactorily carried out without their consent.

Finally, I would like to thank my loved family for their support and patience during my journey.

Thank you

Mohammad Dasan

Abstract

Background: The implementation of accreditation affects the hospitals and impacts many processes, aiming to enhance the quality of care and improve patient safety. Preoperative preparation time is considered a crucial phase during patient hospitalization. It affects patient satisfaction as an indicator utilized during the evaluation of services provided and used to measure the impacts of accreditation. This study aims to assess the effect of accreditation on the preoperative preparation time and patient satisfaction in accredited and non-accredited hospitals.

Methods: Cross-sectional study was used to measure the hospital patients' satisfaction and preoperative preparation time. The data were collected between July and August 2022 using a convenient sampling technique and the SERVQUAL instrument. The sample size was 150 patients who underwent elective surgery and were above 18 years, and the data were analyzed using SPSS.

Results: Patient satisfaction was acceptable for in the hospitals with a mean of (4.33). There found statistically differences at the level ($P \leq 0.05$) between the preoperative preparation time and patient satisfaction related to accreditation status. The study revealed that there are no statistically differences at the level ($P \leq 0.05$) between patient satisfaction and patient characteristics (gender, age, level of education, department, and place of residency), with an exception for the length of stay. Also, there are no statistically differences at level ($P \leq 0.05$) between the preoperative preparation time and patient satisfaction.

Conclusion: The accreditation impacted the preoperative preparation time and patient satisfaction. The findings emphasize that accreditation affects the process of the hospital and improves patient safety and patient satisfaction from the patient perspective. The study findings encourage policymakers to utilize the accreditation program as an improvement tool to enhance the quality of care and maintain patient safety.

Keywords: JCI, preoperative time preparation, West Bank, patient satisfaction,

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List of Abbreviations

No.	Abbreviation	Meaning
1)	et al.	And Others
2)	JCAHO	Joint Commission on Accreditation of Healthcare Organizations
3)	JCIA	Joint Commission International
4)	MOH	Ministry of Health
5)	No.	Number
6)	SERVQUAL	Service Quality
7)	SPSS	Statistical Package for the Social Science
8)	St. Dev.	Standard Deviation
9)	TAT	Turn around Time

Chapter One

Introduction

1.1 Background

The accreditation program for healthcare organizations has become more and more worldwide. The accreditation programs aim to improve patient safety and the quality of care by ensuring that the process and procedures are performed correctly and safely and according to their standards, which assures the need for demonstrating those tools such as JCIA to mitigate the risks of errors which enhance the quality of care and patient safety (Hussein et al., 2021).

The joint commission international accreditation (JCIA) is an acknowledged accreditation body and one of the top healthcare accreditation organizations worldwide, which accredits healthcare organizations by measuring and evaluating the implementation of standards versus the required (Barghouthi & Imam, 2018).

A few accreditation standards could affect or impact routine work's flexibility, like the timeout process, patient rights, and anesthesia surgical care. Although these standards aim to ensure enhancement in patient safety, those standards could require time during the implementation, which increases the surgery time and reduces the operation rooms' (Mahran & Al Nagshabandi, 2016).

The preoperative preparation phase is essential to ensure that the patient is prepared well before the surgery and maintains patient safety. This phase includes preparing the patient physically and psychologically, which means preparing the surgical site and ensuring that the patient is safe and the operation will be performed without adverse complications. Furthermore, the psychology of the patients through educating the patient well about the surgery, understanding the benefits, the possible

side effect of the surgery, and the alternative of the surgical approach (Iqbal et al., 2019).

The preoperative preparation phase aims to enhance the recovery of patients after the surgery and promote the outcomes of the surgery. This can be achieved through a structured process, engaging the patients in all processes, and applying the standards which rely on the patient's needs. Thus, it will ensure patient safety and improve patient satisfaction (Al amine Ali & Abdallah, 2020).

The patient satisfaction measure is one of the leading indicators in the health industry and is utilized by organizations to evaluate the level of healthcare services (Barghouthi & Imam, 2018). Also, some health insurance companies or buyers of healthcare services consider patient satisfaction in the reimbursement process and evaluate the quality of care provided to their patients (Smith et al., 2019).

1.2 Problem Statement

The patients complain of the delay between cases, starting late for the first case and the long time between cases. This research describes the scientific literature exploring different sources of information on operating room performance management. It highlights the implementation of JCIA on the preoperative preparation time and the patient satisfaction for the patients who performed elective surgery.

Preoperative time preparation and the impact on patient satisfaction and experience of the delay leads to increased stress among the staff in the operation room and the preoperative care units. They reduced this stress by analyzing the study's data and applying an improvement plan to reduce the delay time of the important reasons for

the study due to the significance of the stress effect on patient care and the financial effect also on the healthcare institutions due to extended length and procedures time.

1.3 Significance of Study

Managing the performance of the operating room is one of the main targets for hospital managers to increase the capacity of the operation room by eliminating time waste and decreasing waiting times. This will enhance the efficiency of resources, manage these expensive resources effectively, and improve the performance indicators such as saving costs, turnover between cases, and patient satisfaction (Rothstein & Raval, 2018).

In our Palestinian context, only seven hospitals have been accredited by JCIA, such as Istishari Arab hospital, al Najah hospital, Al Makassed hospital, Augusta Victoria hospital, Prince Basma hospital, Red Crescent Society Hospital Jerusalem, and St. John hospital. So, only a few studies have been conducted in this field. To the best of the researcher's knowledge, this study may be the first study that studies the impact of JCIA implementation on preoperative preparation time and patient satisfaction with patients who underwent surgery.

The study may recommend a solution to the problem that the researcher will focus on preoperative preparation time and patient satisfaction for the patients who underwent surgery that has intended to be employed in measuring operating room performance from a time management perspective.

Also, the study findings may enhance and encourage other healthcare facilities, private or governmental, and the study finding may affect the decision to use these tools to enhance and improve healthcare services.

1.4 Purpose of the Study

The study aims to assess the effect of accreditation on the preoperative preparation time and patient satisfaction in accredited and non-accredited hospitals.

1.5 Specific Objectives of The Study

1. To assess the relation between preoperative preparation time (turnaround time of registration, the turnaround time for preoperative preparation, and the discrepancy of pre-scheduling the operation and the actual operating time) and hospital accreditation status.
2. To assess the relation between overall patient satisfaction and hospital accreditation status.
3. To assess the relation between patient satisfaction and patient characteristics, such as gender, department, place of residency, length of stay, and education level.
4. To assess the relation between preoperative preparation time and patient satisfaction.

1.6 Study Hypothesis

1. There are no statistically significant differences at the level ($P \leq 0.05$) between patient satisfaction and hospital accreditation status.
2. There are no statistically significant differences at the level ($P \leq 0.05$) between preoperative preparation time (turnaround time of registration, the turnaround time for preoperative preparation, and the discrepancy of pre-scheduling the operation and the actual operating time) and hospital accreditation status.

3. There are no statistically significant differences at the level ($P \leq 0.05$) between patient satisfaction and patient characteristics (gender, place of residency, length of stay, department, and education level).
4. There are no statistically significant differences at the level ($P \leq 0.05$) between preoperative preparation time (turnaround time of registration, the turnaround time for preoperative preparation, and the discrepancy of pre-scheduling the operation and the actual operating time) and patient satisfaction.

1.7 Limitations of the Study

1. Two hospitals only are included in this study, and the sampling technique was convenient to approach, so the generalization of the findings will be an issue.
2. The time of patient registration and preoperative preparation time were collected from the patients; the patients may forget the actual time.

Chapter Two

Literature Review

2.1 Introduction

This chapter consists of two sections. The first section presents the literature review and the literature related to the study; in this section, the literature discusses the JCIA accreditation, patient satisfaction, the impact of accreditation on patient satisfaction, the impact of preoperative delay time on patient satisfaction, and the impact of accreditation on preoperative time.

The second section presents the conceptual framework of the research; this section discusses the conceptual definitions, operational definitions, independent variables, dependent variables, and the relationship between variables.

Search Process

The search was conducted in PubMed, CINHIL, and Google Scholar for 2015 - 2022. The search term utilized in the search: Impact of JCIA accreditation on the preoperative preparation time and patient satisfaction, and the Boolean operator utilized in the search was (OR, AND). The search was limited to the JCIA accreditation, hospital settings, and inpatient satisfaction, excluding outpatient satisfaction. The language is English, and the free full text was available.

The studies were reviewed by the researcher relevant to the purpose of the study and the other literature related to the study, such as the impact of JCIA accreditation on the preoperative preparation time, the impact of JCIA accreditation on patient satisfaction, delay of the operation room, JCIA accreditation, and impact of accreditation on the delay of the operation room. The reviewing studies include the studies conducted middle east and worldwide, which examined the purpose of the study.

Key words included: delay of the operation room, accredited hospital, JCI Accreditation, and patient satisfaction.

2.2 JCI Accreditation

The quality of care and patient safety is considered the main issues that are concern by the accreditation bodies (Halasa et al., 2015). Accreditation began in the early 20th century, which means evaluating the compliance of the program implementation versus the accreditation body's requirements. These accreditation bodies may be local or international (Avia & Hariyati, 2019).

Joint commission international accreditation (JCIA) was established in 1991, and it is the international branch of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) established in the USA. This accreditation body is considered one of the most crucial accreditation bodies worldwide. The JCIA has many accreditation programs, such as hospital, laboratory, ambulatory, and primary healthcare programs, and provides some organizations with certificates for specific programs, such as disease-specific program certificates (Barghouthi & Imam, 2018).

The impact of accreditation on hospitals touches on different aspects, such as quality of care, staff empowerment, engagement of the staff, and enhancement of the patient safety environment (Avia & Hariyati, 2019). Furthermore, the value of the accreditation in the efficiency of resources and enhanced performance indicators such as returning patients to ICU, completeness of the medical record, and reduced staff turnover; these indicators improved significantly, and cost savings of about 593,000 (Halasa et al., 2015).

Patient safety in operation rooms and for patients who underwent an operation during hospitalization is one of the main chapters and domains in the accreditation standards and the evaluation process. Those standards impact the time of the preoperative period; the accreditation did not significantly impact the preoperative period. Moreover, the accreditation enhances patient safety in this critical period (Inomata et al., 2018).

2.3 Patient Satisfaction

The competition in healthcare is increasing daily in the health industry, and the main factor affecting the market is the quality of care and the patient's point of view on the healthcare services provided to the patients; this can be a determinant of the competition. So many healthcare organizations pay attention to patient satisfaction (Karaca & Durna, 2019).

Patient satisfaction is considered a critical and valuable indicator that reflects the patients' quality and is used in designing the care process. The data generated from satisfaction surveys is an opportunity for improvement (Batbaatar et al., 2017).

As part of the patient-centered care standards, accreditation bodies require patient satisfaction, and the hospitals need to measure it. This measure can evaluate many processes that reflect the care and other hospital processes. So, to encourage patients to use their services again or refer them to others, hospital managers intend to improve patient satisfaction scores (Barghouthi & Imam, 2018).

It is reasonable to wonder if this accreditation method would increase patient experiences when hospitals employ it to enhance quality. The influence of the accrediting program on those organizations and healthcare management must be

assessed as part of the accreditation processes. Many studies sought to determine the relationship between patients' satisfaction and the accreditation program, whereas some studies sought to measure the effect of accreditation on patient satisfaction (Mazurenko et al., 2017).

2.4 Literature of Preoperative and Delay Time, Patient Satisfaction, and Accreditation.

The studies related to the research topics are categorized and summarized to present the literature aims, methods, results, and conclusion relevant to the study topic.

Preoperative and Delay Time

A study by Joos et al. (2021) discussed morning cases being delayed in hospitals by different sizes. This study said that late first cases would lose the capacity for doing more surgery and cause the team to lose their action potential to work, especially anesthesia late time. The delay was studied in 36 hospitals, small communities, and large ones and university ones over two weeks; the 3628-case delay ratio was from 26.5% to 40.8%. The conclusion was also a delay in Anesthesia preparation time, and the reason manifold.

Mlynarski, Kaczkowski & Mlynarska conducted a prospective study in Poland in 2021 that included: 1080 patients who were hospitalized between 2009–2015; they completed a 22-item questionnaire that assessed the satisfaction level of medical care. Fifty-eight questionnaires were excluded because of incomplete data. The study result shows a significant difference in 3 of the four wards' satisfaction before the accreditation process. The study concludes that the preparation period for accreditation makes the accreditation environment increase the level of satisfaction with the care.

A study by Okeke, Okorie & Ojewola (2020) discussed the delay issue in Nigerian teaching hospitals. They hypothesized that the maximized effect of starting early reduces the harmful impact on every team member. The method was a prospective study for all elective cases over 15 months from 0800am till 0300 pm. Results came over 1178 surgeries during study 1170. This is a delay of 151 for all surgeries, and the first case had the most delay time; the patient-related factor was the most cause. The conclusion was that the delay could be prevented effort should be more to prevent to increase productivity.

The study by Hoffman et al. (2019). Discussed the role of the resident pre-operative seeing the patient and late time within the 3071 cases in five years. The resident was one of the delay causes. The conclusion was that if the surgeon or anesthesiologist was their will decrease ate time for the first case.

This study by Halim, Khan, & Ali (2018) discussed approaches to improve the start time in the operating room, mentioning that operation cost is high and that the start time is a significant target. The study focused on the difficulty of implementing the strategy to start accuracy by systemic review the asses the effect of the delay. They summarize in a way to be used in the hospital.

The study was conducted by Tiwari, Ehrenfeld & Sandberg (2018); before the last, the aim was to check if starting the entire caring process early would make the start time earlier as possible, within 35 months of data 28882 first case statically process control methodology had been used, results came that by the process make the delay time less than before, by starting the preoperative earlier, they reduce the delay.

Deldar et al. (2017) conducted a study using a lean improvement process in the medical center to reduce the delay time. They focus on the surgeon-related factor as the

most common delay etiology. The study was to know the cause of the delay process, and it was a retrospective study 7 months after and before implementing the lean approach. The result was that the lean process could improve the start time accuracy.

The study conducted by Yount et al. (2015) discussed the impacts of late surgery on mortality and the cost of not emergency cardiac surgery. Only review part of the cost due to the study field; the reason was to determine the difference for cases not emergency start after three pm. The method was by reviewing one hospital from 2008 to 2013 that started before 3 pm and that is after 3 pm. Among 3395 cases, 368 began after 3 pm. The cost was higher by 8%. The result was that starting late increased risk and expense.

2.4.1 Impact of Accreditation on Patient Satisfaction

Andres et al. (2019) conducted a cross-sectional study in Korea about Can hospital accreditation enhances patient experience. Three cross-sectional studies were divided into nine months before accreditation T1, T2, and fifteen months after accreditation T3. The results revealed that 3083 patients (T1 = 896, T2 = 1093, T3 = 1094) completed the survey with a response rate of 83.5, 86.1, and 83.8%, respectively. The study concluded that the accreditation experience did not enhance patient experiences and showed no significant difference after, within, and before the accreditation period.

Barghouthi & Imam (2018) conducted a study to compare patient satisfaction between accredited and non-accredited Palestinian hospitals. The study aims to measure patient satisfaction in Palestinian hospitals. The method utilized a cross-sectional study and recruited 346 patients from two hospitals, with a convenient sampling method and

the data analyzed by SPSS. The study concluded that the accreditation status did impact the patient's satisfaction.

Joseph (2018) conducted a quantitative cross-sectional study in India in 2018 to compare patient satisfaction with care between accredited and non-accredited hospitals by studying the impact of implementing accreditation on the quality of healthcare services using satisfaction as an indicator. The study result shows no significant effect of implementing accreditation on patient satisfaction with care. The study concluded that implies that there is a need to assess the implementation of an accreditation program and change the method that the accreted hospital delivers the service and enhance the infrastructure will increase satisfaction with the facilities.

Aboshaiqah et al. (2016) conducted a comparative study to compare patients' assessment of the quality of care provided by the public tertiary hospital according to the accreditation status in middle Saudi Arabia. The method was a cross-sectional study, and the sample size was 1059 patients by quota sampling approach via questionnaires. The results revealed that patients who received care in the accredited hospital were more satisfied than those in non-accredited hospitals, and no significant differences were found. The conclusion indicates that accredited hospitals have better outcomes and quality of care.

2.4.2 Impact of Accreditation on Quality of Care

Qualitative study by Algunmeeyn, Alrawashdeh & Alhabashneh was conducted in Jordan in 2020 to explore the values of accreditation program in the accredited hospitals. A phenomenological approach conducted and data collected via interviews with ten nurses and ten physicians from different specialists from both hospitals. The

study findings revealed four main themes: improving patient satisfaction, enhancing patient safety, improving the reputation of quality services, and cost-effectiveness. The study assure that the accreditation has a positive pattern on the staff practices.

A qualitative study was conducted by Melo (2016) in Portugal to explore which accreditation can improve the quality of healthcare services. Data collected via semi-structured interviews. The sample include 49 participants. Thematic analysis was utilized. The study findings showed that hospital accreditation improve the quality, patient safety, and enhance the staff practices. The study revealed that accreditation have a positive outcome on patient safety.

2.5 Conceptual Framework

This section discusses the conceptual definitions, operational definitions, independent variables, dependent variables, and the relationship between variables for study, which have different variables of the impact of JCIA accreditation on the preoperative preparation time and patient satisfaction.

2.5.1 Conceptual Definitions

Patient satisfaction “Is an attitude. Though it does not ensure that the patient will remain loyal to the doctor or the hospital, it is still a strong motivating factor. Patient satisfaction is only an indirect or a proxy indicator of the quality of doctor or hospital performance.” (Prakash, 2010).

Preoperative Preparation Time: This is the time required to prepare the patient before the operation, which is measured in this study through (the turnaround time of

registration, the turnaround time for preoperative preparation, and the discrepancy between pre-scheduling the operation and the actual operating time).

Patient Characteristics “Is the socioeconomic characteristics of a population expressed statistically, such as age, education level, sex, marital status, occupation, religion, birth rate, death rate, the average size of families and the average age at marriage” (Business Dictionary, 2016 as cited in Barghouthi & Imam, 2018).

2.5.2 Operational Definitions

Patient satisfaction is measured through the patient’s perception and experiences of the services during hospitalization. This was measured through SERVQUAL questionnaire questions from 1 – 24.

Patient characteristics are the characteristics of the patients who participated in the study, including gender, age, education level, place of residency, and the department for the patient treated in the hospital.

Preoperative Preparation Time: This is the time required to prepare the patient before the operation, which is measured in this study through (the turnaround time of registration, the turnaround time for preoperative preparation, and the discrepancy between pre-scheduling the operation and the actual operating time).

JCI Accreditation: It is the hospital’s recognition after the evaluation process to monitor the compliance of the policies and program implementation versus the required standards.

2.6 Conceptual Framework

The conceptual framework in figure 2.1 describes the relationship between the study variables and determines the independent and dependent variables examined in the research.

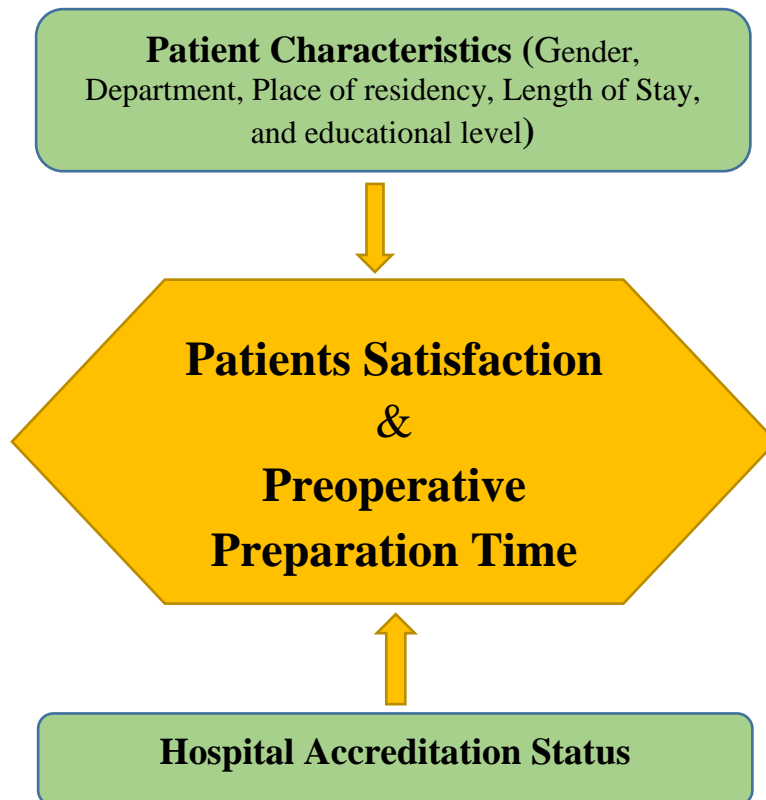


Figure 2.1: Conceptual Framework of the Study.

2.7 Summary

This chapter discussed the literature related to the research purposes and the relevant topics. In addition, it describes the conceptual and operational framework of the research. The literature emphasizes that the research has a potential impact on the healthcare industry and provides the decision makers evidence for the impact of the accreditation on the preoperative preparation time and patient satisfaction.

Chapter Three

Methodology

3.1 Introduction

This chapter discussed the research, setting, population, participant recruitment criteria, instruments, collection method, analysis, and ethical permission.

3.2 Study Design

There are different research methods based on the study's purposes, specific objectives, research hypothesis, and the subject's recruitment; the cross-sectional study design was utilized in this study.

Cross-sectional is part of the quantitative descriptive design, and it is utilized when the researcher measures the outcome of the subjects in the study at the same point of time. This type of study is an observational study and describes the subjects and study variables without any interventions and studies the association between variables (Setia, 2016).

The cross-sectional study is quick to conduct, did not jeopardize patient safety, considered it easy to get ethical permission, had no need for high efforts in the follow-up, and was influential in establishing the association between variables (Cataldo et al., 2019).

The disadvantage of this type of study is that it cannot make causal and effect relationships, has difficulty making causal effect relationships, and is not helpful in the prevalence of infectious diseases (Cataldo et al., 2019).

3.3 Study Setting

I. Istishari Arab Hospital

Istishari Arab hospital is the largest private hospital in Palestine and operated in 2015. It consists of 169 beds, the total number of admissions in 2021 equal to 30,000 admissions, and is considered one of the referrals to secondary and tertiary hospitals. The hospital has a residency training program for more than ten specialties, and most of the universities in Westbank has trained some courses for their students at the hospital, such as nurses, nutritionist, pharmacists, and physiotherapists students. The hospital became as first private hospital accredited by JCI in 2020. About 550 employees work at the hospital.

The hospital provides multispecialty services including but not limited to gynecology, orthopedics, neurosurgery, cardiac surgery, cardiology, internal medicine, urology, endocrinology, oncology, vascular surgery, intensive care units, ENT, emergency services, outpatient clinics, pediatric, neonatology, and general surgery.

II. Palestine Medical Complex

Palestine medical complex is the largest government hospital in Palestine and was established in 1963. It consists of 5 hospitals, and the total number of beds equals 214. The hospital has a residency training program. Many universities in Westbank have trained some courses for their students, such as nurses, nutritionists, pharmacists, and physiotherapists. About 765 employees work at the hospital (Kurdi, 2018).

The hospital provides multispecialty services, similar to the scope of service available at Istishari Arab hospitals, such as gynecology, orthopedics, neurosurgery, cardiac surgery, cardiology, internal medicine, urology, endocrinology, oncology,

vascular surgery, intensive care units, ENT, emergency services, outpatient clinics, pediatric, neonatology, and general surgery.

The cause that researcher choose two hospitals only that we only two accredited hospital in west bank and one of them in Nablus and regarding the political and military restriction that was happening at the research time it was so difficult to travel to the other hospital in Nablus.

3.4 Sampling

In this study, the convenient sampling method was recruited. The accidental or haphazard sampling method is another name for the convenient sampling method. The subject selected a nonprobability sampling method when available at a given time of data collection. Convenience sampling is inexpensive, and the subjects are accessible, which helps the researcher collect the data to meet the study purposes and the inclusion and exclusion criteria available (Etikan, Musa & Alkassim, 2016). The disadvantage of this sampling is bias and outliers and less clear generalizability (Jager et al., 2017).

3.5 Population and Sample Size

This study's population is the admitted patients for both hospitals (Istishari Arab Hospital and Palestine Medical Complex). The total number of admissions based on both hospitals' inclusion and exclusion criteria was taken to calculate the representative sample. Formal statistics show that the number of inpatients and patients who performed operations during hospitalization is more than 650 patients monthly in all specialty but for the five specialty that the research chose its only 300 patients the

sample size was calculated depending on the number of elective operations from the two hospitals.

The sample size was calculated with notice to the response rate of 50%, confidence interval of 90%, and marginal error of 5%. The Recommended sample size is 143 (Raosoft, n.d.)

3.6 Criteria to Recruit the Patients

The study includes adult inpatients who are above 18 years till 90 years on the day of admission and patients who operated elective cases. The researcher excludes patients treated in the hospital with conservative treatment and patients who cannot participate due to critical illness or illiterate patients.

3.7 Data Collection Tool

The quality of care and the accreditation impact on the patient's satisfaction and preoperative preparation time was measured by the SERVQUAL questionnaire. Parasuraman developed this questionnaire in 1988, widely utilized in the healthcare industry to measure patient satisfaction through the patient's perception of the services provided during the patient hospitalization period (Dopeykar et al., 2018).

SERVQUAL is constructed of 24 items representing five dimensions. It was used to measure the quality and dimensions of the services (tangibles(5items), reliability (4 items), responsiveness (4 items), assurance (6 items), and empathy (5 items)). A Likert-type scale of five grades, which (1) means strongly disagree and (5) strongly agree and 3 and above mean satisfied and less than 3 mean unsatisfied (Barghouthi & Imam, 2018).

TAT (turnaround time) was measured by two questions at the end of the questioner measuring the time by minutes for the registration process and the time for preoperative preparation time per minute also.

Demographic characteristics for patient was categorized to, Gender (male, female) , place of residency (north, south, center), department of surgery (general surgery, Gyn. And Obs., Orthopedic, Urology, Vascular), Educational level (primary school, secondary school, diploma, undergraduate, graduate), length of stay (one day(zero day), two days, three days, four days, fives days, six days, seven days, eight days)

The original copy of the questionnaire in English was translated into Arabic (See annex 3), and the Arabic version was utilized after the permission of the Palestinian researcher who utilized this Arabic version of the questionnaire (Barghouthi & Imam, 2018) (See annex 4).

3.8 Reliability and Validity

3.8.1 Validity

The test's validity refers to the test precision between the collected and the expected. This means that validity which is the ability to assess the targeted concept. This study uses content validity to measure the intended content of the questionnaire items (Louangrath & Sutanapong, 2018). The researcher worked with three experts in the field to validate the questionnaire (See in annex 9). The experts had experience in the accreditation of healthcare organizations and statisticians. After reviewing the questionnaire and the research purposes and hypothesis, they gave their

recommendations to the researcher. Most of these recommendations were related to the modifications in the statements. All notes had been modified according to their requests.

3.8.2 Reliability

The reliability of a measure is the ability to measure the intent consistently, which means the instruments are consistent for a period. The reliability is measured through the Cronbach alpha test, which calculates homogeneity by correlating item with other items. It is OK to have a Cronbach's alpha value of 0.70 or more (Louangrath & Sutanapong, 2018). The Cronbach alpha for the questionnaire in this study was 0.93.

3.9 Ethical Permission

The graduate study approved the research at Arab American University, and the official letter was obtained to facilitate the work (See annex 5 & 6). The researcher gets formal approval from both hospitals for the study and publications (See annex 7 & 8).

The questionnaire has an introduction with complete information about the study's title, aim, and objectives (See annex 1). The permission was obtained verbally after the participant read the cover page of the questionnaire.

The researcher protected the confidentiality of all participants by encrypting the data folder in a locked computer and did not allow anyone to use these data unless for study purposes. Finally, patient credentialing was not required to obtain the data.

3.10 Data Collection

The researcher disseminates the questionnaires to the patients who meet the inclusion criteria and ensures the patients fulfill all the items in the questionnaire. The

data collection was based on the data obtained from the department heads to facilitate the selection of the patients and to be according to the inclusion criteria. The data collection was done at the discharge time of the patients within the period was between first of July and continued till the 31 of August / 2022.

3.11 Data Entry and Analysis

All answered questionnaires were entered into the SPSS software program version 25. The total number of questionnaires was 150. The SPSS was utilized to analyze data with a statistician's assistance. The descriptive analysis includes frequencies, percentages, means, and standard deviation. The inferential statistics included the T-test and ANOVA.

3.12 Feasibility of the Study

The study is feasible because accredited and non-accredited hospitals are available in Westbank, and the researcher is an expert in the field.

Chapter Four

Findings & Discussion

4.1 Introduction

Chapter four presented the findings and discussion; the first section presented the findings of the results. The analysis shows the participant's demographic, the preoperative time preparation, and patient satisfaction. Inferential statistics utilized ANOVA and T-Tests to measure differences between means; the T-Test was utilized for the variables with two samples and ANOVA for more than two samples.

The second section has presented a discussion of the findings and the rationale for some findings with relevant literature.

4.2 Demographic of the Patients

The demographic characteristics in this study were age, gender, 31 department, educational level, place of residency, and length of stay. One hundred fifty patients filled out the questionnaire, and the patients were recruited from both hospitals proportionally based on the hospital admission data. So, 100 patients participated from the non-accredited hospital (66.7%), and 50 of the sample were from the accredited hospital (33.3%).

The average age of the patients was 40.3 years. The higher age among patients who participated in the study was 90 years, and the minimum age was 18 years; the Females who participated in the survey equal 62 (41.3%), and the Males equal 88 (58.7%). The residency area was classified into: 73.3% from the center (Jerusalem, Jericho, and Ramallah), 13.4% from the south (Bethlehem, Gaza, and Hebron), and 13.3

from the north (Nablus, Jenin, Tulkarem, Qalqelia, and Salfet) as presented in table 4.1.

Educational levels for the patients who participated in the study were: 12.7% in primary school, 28% in secondary school, 23.3% with a diploma, 28.7% with an undergraduate, and 7.3% with a graduate, as presented in table 4.1.

Table (4.1):Number and Percentage According to Patients Characteristics

Demographic	category	number of patients	percentage of patients
Gender	Female	62	41.3
Gender	Male	88	58.7
Place of Residency	Center	110	73.3
Place of Residency	North	20	13.3
Place of Residency	South	20	13.3
Department	General Surgery	28	18.7
Department	Gyn. and Obs.	44	29.3
Department	Orthopedics	37	24.7
Department	Urology	20	13.3
Department	Vascular	21	14
Educational Level	Primary School	19	12.7
Educational Level	Secondary School	42	28
Educational Level	Diploma	35	23.3
Educational Level	Undergraduate	43	28.7
Educational Level	Graduate	11	7.3
LOS	One Day(zero day of surgery)	6	4
LOS	Two Days	45	30
LOS	Three Days	28	18.7
LOS	Four Days	33	22
LOS	Five Days	20	13.3
LOS	Six Days	9	6
LOS	Seven Days	5	3.3
LOS	Eight Days	1	0.7
LOS	Missed	3	2

The highest length of stay of patients who participated in the study was two days with 30%, followed by four days with 22%, and the lowest length of stay for the patients who participated in the study was eight days with 0.7%, followed by seven days with 3.3% as presented in table 4.1.

The patients were recruited from five different departments from both hospitals: 18.7% for general surgery, 29.3 % for gynecology & obstetrics, 24.7% for orthopedics, 13.3% for urology, and 14% for vascular surgery, as presented in table 4.1.

4.3 Preoperative Time Preparation

Three questions in the questionnaire assessed this section. The preoperative time preparation in this study includes the turnaround time (TAT) for registration, the turnaround time (TAT) for preoperative preparation, and the discrepancy between the operation appointment and the actual operation time. 56% of the total sample showed that the operations were performed according to the scheduled appointment, and 44% showed discrepancies between the scheduled operation time and the actual operation time, as presented in figure 4.1.

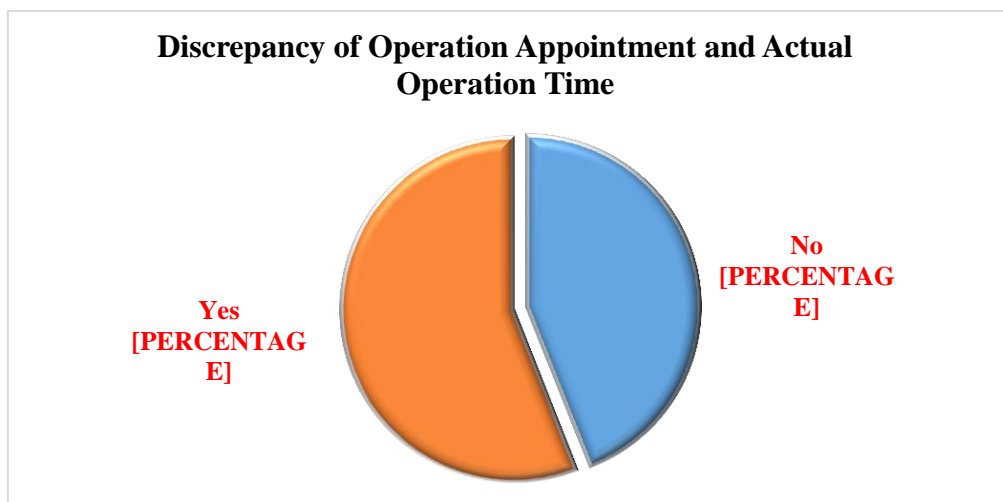


Figure (4.1): Discrepancy of Operation Appointment and Actual Operation Time

64% of the patients from the accredited hospital report that the operation was performed according to the scheduled appointment, while 52% in the non-accredited hospital report that the operation was performed according to the scheduling time.

The average TAT for the registration process for the accredited hospital equals 24.58 minutes, while for the non-accredited hospital equals 8.76 minutes. The average TAT for preoperative preparation for the accredited hospital equals 69.4 minutes, and for the non-accredited hospital equals 44.45 minutes.

4.4 Patient Satisfaction

This part was assessed via SERVQUAL questionnaire consisting of 24 questions, the data analyzed the following: frequencies, percentages, means, standard deviations, and positive responses for the patients who answered the questionnaire. Patients had a high level of satisfaction in both hospitals with a total mean of (4.33) and a standard deviation of (0.73).

The means of patient's satisfaction dimensions as the tangibles dimension is equal to 4.28, the reliability dimension is equal to 4.43, the responsiveness dimension is equal to 4.18, the assurance dimension is equal to 4.46, and the empathy dimension is equal to 4.32 as presented in figure 4.2.

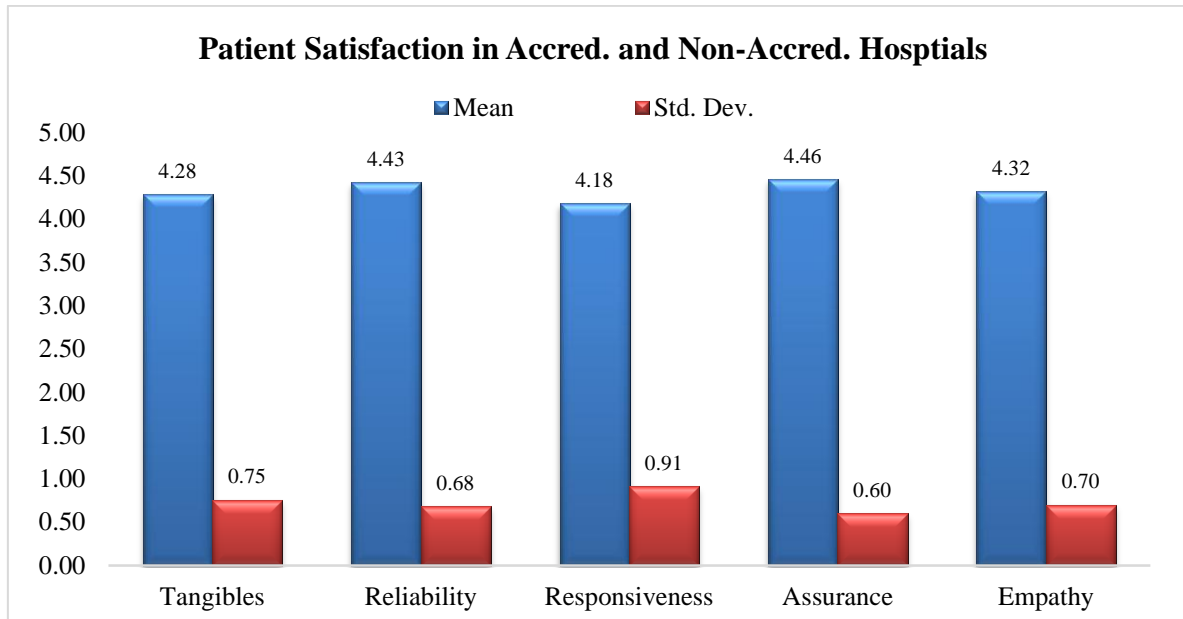


Figure (4.2): Patient Satisfaction in Accredited and Non-Accredited Hospitals

The patients' satisfaction in accredited hospitals was more than in non-accredited hospitals, where the total mean for accredited hospitals was 4.45. Moreover, the total mean satisfaction for non-accredited hospitals was 4.28.

Furthermore, patients have more satisfaction in the accredited hospital than in the non-accredited for all satisfaction subscales, except the responsiveness, which is higher in the non-accredited hospital 4.1 than the accredited hospital 4.0, as presented in figure 4.3.

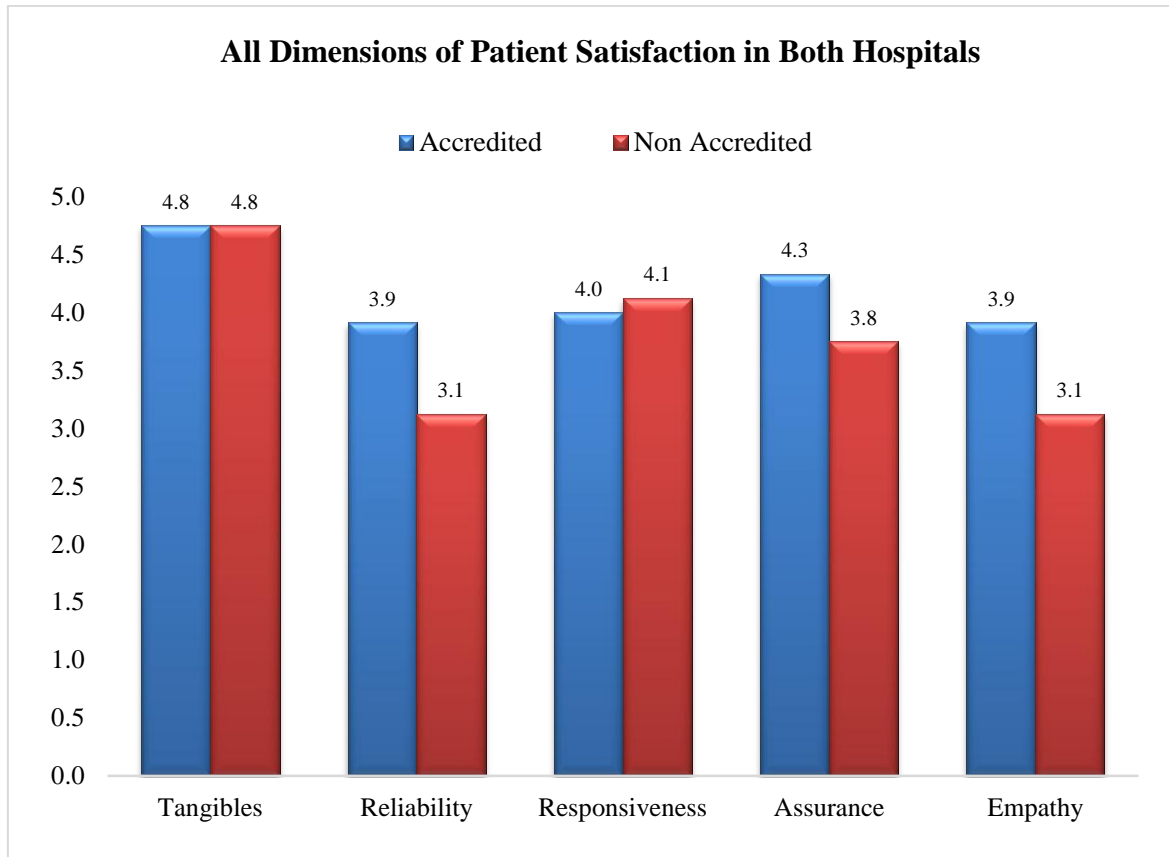


Figure (4.3): All Dimensions of Patient Satisfaction in Both Hospitals

In both hospitals, all questions rated more than 85% except four questions: “Easy appointment” 72.7%, “Reasonable waiting time” 79.3%, “Readiness for personal attention” 81.3%, and “Prompt Services” 84.7% as presented in table 4.3.

The positive response was calculated through considering the two responses only (“Strongly Agree” and “Agree”). The positive response rate was 91% for both hospitals, as presented in table 4.2

Table (4.2): Positive Responses in Patients Satisfaction for Accredited & Non-Accredited Hospitals

Accredited and Non-Accredited									
No.	Questions	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Positive Response	Mean	St. Dev.
Q1	Modern equipment	1	3	10	76	60	135 (90%)	4.27	0.73
Q2	Physical facilities	3	6	8	69	64	132 (88%)	4.23	0.88
Q3	Clean and hygienic appearance	0	2	5	75	68	142 (94.7)	4.39	0.62
Q4	Clean, smart staff	0	1	1	66	82	147 (98%)	4.53	0.55
Q5	Reasonable waiting time	3	14	13	71	49	119 (79.3%)	3.99	0.99
Tangibles								21.42	2.75
Q6	Sympathetic attendance to patients	0	3	2	60	85	144 (96%)	4.51	0.63
Q7	Dependable services	1	0	11	62	76	137 (91.3%)	4.41	0.69
Q8	Punctual staff	0	0	13	59	78	136 (90.7%)	4.43	0.65
Q9	Accurate records	2	0	15	60	73	132 (88%)	4.35	0.77
Reliability								17.71	2.07
Q10	Easy Appointment/Attendance	6	17	17	61	49	109 (72.7%)	3.87	1.12
Q11	Prompt service	3	3	16	69	59	127 (84.7%)	4.19	0.85
Q12	Staff always willing to help	4	2	6	66	72	137 (91.3%)	4.33	0.84
Q13	Prompt response to any request	4	2	5	68	71	138 (92%)	4.33	0.83
Responsiveness								16.72	2.89
Q14	Can trust staff	0	1	7	66	76	141 (94%)	4.45	0.62
Q15	Feel safe	0	0	3	65	82	146 (97.3%)	4.53	0.54
Q16	In-care of staff	0	2	1	62	85	146 (97.3%)	4.53	0.59
Q17	Polite staff	0	0	5	63	82	144 (96%)	4.51	0.56
Q18	Adequate	0	2	6	80	62	141 (94%)	4.35	0.62
Q19	Support	1	2	3	75	69	144 (96%)	4.39	0.66
Assurance								26.79	4.28
Q20	Individual attention to patients	1	0	5	68	76	143 (95.3%)	4.45	0.63
Q21	Readiness for personal attention	2	2	23	73	50	122 (81.3%)	4.11	0.81
Q22	Staff aware of the needs of the patients	0	2	8	79	61	139 (92.7%)	4.33	0.64
Q23	Staff have the best interests of the patients in their heart	0	1	11	62	76	137 (91.3%)	4.42	0.66
Q24	Convenient working hours	2	1	12	72	63	134 (89.3%)	4.29	0.75
Empathy								21.60	2.88

In the accredited hospital, positive response rate was 96.5% while the total positive response rate for non-accredited is 89%. See table 4.3 and table 4.4.

Table (4.3): Positive Responses in Patients Satisfaction for Accredited Hospital

Accredited									
Items		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Positive Response	Mean	St. Dev.
Q1	Modern equipment	0	0	0	29	21	50 (100%)	4.42	0.50
Q2	Physical facilities	0	1	2	25	22	47 (94%)	4.36	0.66
Q3	Clean and hygienic appearance	0	1	2	20	27	47 (94%)	4.46	0.68
Q4	Clean, smart staff	0	0	0	24	26	50 (100%)	4.52	0.50
Q5	Reasonable waiting time	0	1	3	28	18	46 (92%)	4.26	0.66
Tangibles								4.40	0.60
Q6	Sympathetic attendance to patients	0	0	1	20	29	49 (98%)	4.56	0.54
Q7	Dependable services	0	0	1	21	28	49 (98%)	4.54	0.54
Q8	Punctual staff	0	0	4	25	21	46 (92%)	4.34	0.63
Q9	Accurate records	0	0	5	20	25	45 (90%)	4.40	0.67
Reliability								4.46	0.59
Q10	Easy Appointment/Attendance	0	1	3	29	17	46 (92%)	4.24	0.66
Q11	Prompt service	0	1	2	25	22	47 (94%)	4.36	0.66
Q12	Staff always willing to help	0	0	2	22	26	48 (96%)	4.48	0.58
Q13	Prompt response to any request	0	0	0	21	29	50 (100%)	4.58	0.50
Responsiveness								4.42	0.60
Q14	Can trust staff	0	0	1	20	29	49 (98%)	4.56	0.54
Q15	Feel safe	0	0	0	21	29	50 (100%)	4.58	0.50
Q16	In-care of staff	0	0	0	16	34	50 (100%)	4.68	0.47
Q17	Polite staff	0	0	0	20	30	50 (100%)	4.60	0.49
Q18	Adequate	0	0	0	31	19	50 (100%)	4.38	0.49
Q19	Support	0	0	1	22	27	49 (98%)	4.52	0.54
Assurance								4.55	0.51
Q20	Individual attention to patients	0	0	0	26	24	50 (100%)	4.48	0.50
Q21	Readiness for personal attention	0	0	6	28	16	44 (88%)	4.20	0.64
Q22	Staff aware of the needs of the patients	0	1	0	25	24	49 (98%)	4.44	0.61
Q23	Staff have the best interests of the patients in their heart	0	0	2	22	26	48 (96%)	4.48	0.58
Q24	Convenient working hours	0	0	1	26	23	49 (98%)	4.44	0.54
Empathy								4.41	0.58

Table (4.4): Positive Responses in Patients Satisfaction for Non-Accredited Hospital

Non-Accredited									
Items		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree	Positive Response	Mean	St. Dev.
Q1	Modern equipment	1	3	10	47	39	86 (86%)	4.20	0.82
Q2	Physical facilities	3	5	6	44	42	86 (86%)	4.17	0.96
Q3	Clean and hygienic appearance	0	1	3	55	41	96 (96%)	4.36	0.59
Q4	Clean, smart staff	0	1	1	42	56	98 (98%)	4.53	0.58
Q5	Reasonable waiting time	3	13	10	43	31	74 (74%)	3.86	1.09
Tangibles								4.22	0.81
Q6	Sympathetic attendance to patients	0	3	1	40	56	96 (96%)	4.49	0.67
Q7	Dependable services	1	0	10	41	48	89 (89%)	4.35	0.74
Q8	Punctual staff	0	0	9	34	57	91 (91%)	4.48	0.66
Q9	Accurate records	2	0	10	40	48	88 (88%)	4.32	0.82
Reliability								4.41	0.72
Q10	Easy appointment/ Attendance	6	16	14	32	32	64 (64%)	3.68	1.25
Q11	Prompt service	3	2	14	44	37	81 (81%)	4.10	0.93
Q12	Staff always willing to help	4	2	4	44	46	90 (90%)	4.26	0.94
Q13	Prompt response to any request	4	2	5	47	42	89 (89%)	4.21	0.94
Responsiveness								4.06	1.01
Q14	Can trust staff	0	1	6	46	47	93 (93%)	4.39	0.65
Q15	Feel safe	0	0	3	44	53	97 (97%)	4.50	0.56
Q16	In-care of staff	0	2	1	46	51	97 (97%)	4.46	0.63
Q17	Polite staff	0	0	5	43	52	95 (95%)	4.47	0.59
Q18	Adequate	0	2	6	49	43	92 (92%)	4.33	0.68
Q19	Support	1	2	2	53	42	95 (95%)	4.33	0.71
Assurance								4.41	0.64
Q20	Individual attention to patients	1	0	5	42	52	94 (94%)	4.44	0.69
Q21	Readiness for personal attention	2	2	17	45	34	79 (79%)	4.07	0.88
Q22	Staff aware of the needs of the patients	0	1	8	54	37	91 (91%)	4.27	0.65
Q23	Staff have the best interests of the patients in their heart	0	1	9	40	50	90 (90%)	4.39	0.69
Q24	Convenient working hours	2	1	11	46	40	86 (86%)	4.21	0.83
Empathy								4.28	0.75

4.5 Testing Hypothesis

4.5.1 Patient Satisfaction with Accreditation Status

Independent sample T. Test was utilized to test the hypothesis of patient satisfaction and accreditation status, and the test presents that there indicates that there are statistically significant differences at the level ($P \leq 0.05$) between the means of patient satisfaction and accreditation status as in table (4.5).

Table (4.5): Patient Satisfaction According to Accreditation Status (T. Test)

Variables		Patient Satisfaction			
		Mean	T- value	P- value	Interpretation
Accreditation Status	Non-Accredited	103.15	-1.597	.035	Reject
	Accredited	106.40			

Furthermore, the result indicates that there are statistically significant differences between the means of a patient's satisfaction subscales (tangibles, reliability, empathy, responsiveness) and accreditation status at level ($P \leq 0.05$) except assurance. The assurance domain showed there are no statistically significant differences between the means of a patient's satisfaction assurance domain and accreditation status at level ($P \leq 0.05$), as presented in table (4.6).

Table (4.6): Subscales According to Accreditation Status (T. Test)

Variables		Statistical Analysis			
		Mean	T- value	P-value	Interpretation
Tangibles	Non-Accredited	21.12	-1.903	.026	Reject
	Accredited	22.02			
Reliability	Non-Accredited	17.64	-.557	.014	Reject
	Accredited	17.84			
Responsiveness	Non-Accredited	16.25	-2.88	.003	Reject
	Accredited	17.66			
Assurance	Non-Accredited	26.76	-.108	.107	Fail to reject
	Accredited	26.84			
Empathy	Non-Accredited	21.38	-1.32	.014	Reject
	Accredited	22.04			

4.5.2 Patient Satisfaction with Characteristics of the Patients

Independent sample T. Test was utilized to test the hypothesis of gender and patient satisfaction. The test indicates that there are no statistically significant differences at the level ($P \leq 0.05$) between the means of patient satisfaction and gender, as in table (4.7).

Table (4.7): Patient Satisfaction According to Gender (T. Test)

Variables		Statistical Analysis			
		Mean	T- value	P-value	Interpretation
Gender	Male	103.5	-0.637	.061	Fail to reject
	Female	104.7			

Other patient characteristics (age, place of the patient residency, level of education, department, and length of stay) of the patient who participated in the study were tested by ANOVA. The test results revealed that there are no statistically significant differences at the level ($P \leq 0.05$) between the means of patient satisfaction and patient characteristics (age, level of education, department, and place of residency) with an exception for the length of stay as presented in table (4.8).

Table (4.8): Patient Satisfaction According to Patient Characteristics (ANOVA)

Variables		Patient Satisfaction				
		Mean Square	df	F- value	P-value	Interpretation
Age	Between Groups	300.670	40	1.106	.335	Fail to reject
	Within Groups	271.946	109			
Department	Between Groups	1.890	40	1.182	.247	Fail to reject
	Within Groups	1.600	109			
Level of Education	Between Groups	1.969	40	1.085	.362	Fail to reject
	Within Groups	1.815	109			
Place of the Residency	Between Groups	.299	40	1.164	.265	Fail to reject
	Within Groups	.257	109			
Length of Stay	Between Groups	3.299	39	1.698	.017	Reject
	Within Groups	1.943	110			

4.5.3 Preoperative Time Preparation with Accreditation Status

Preoperative time preparation in this study (the turnaround time for patient admission and turnaround time for preoperative preparation, and the discrepancy between operation appointment and the actual time of operation) was tested by independent sample T. Test.

The study findings present that there are significant differences at the level ($P \leq 0.05$) between preoperative preparation time (TAT for registration, TAT for operation preparation, and discrepancy time between operation appointment and actual time of operation) and hospital accreditation status, as presented in table (4.9).

Table (4.9): Preoperative Time Preparation According to Accreditation Status (T. Test)

Variables		Statistical Analysis			
		Mean	T- value	P-value	Interpretation
TAT for Registration	Non-Accredited	8.76	-12.476	.000	Reject
	Accredited	24.58			
TAT for Preparation	Non-Accredited	44.45	-5.084	.034	Reject
	Accredited	69.40			
Discrepancy Time	Non-Accredited	1.48	1.395	.006	Reject
	Accredited	1.36			

4.5.4 Preoperative Time Preparation with Patient Satisfaction

Preoperative time preparation the discrepancy between operation appointment and the actual time of operation) with patient satisfaction was tested by independent sample T. Test. The study findings present that there are no significant differences at the level ($P \leq 0.05$) between the discrepancy time between operation appointment and actual time of operation with patient satisfaction, as presented in table (4.10).

Table (4.10): Patient Satisfaction According to Discrepancy Time (T. Test)

Variables		Statistical Analysis			
		Mean	T- value	P-value	Interpretation
Discrepancy Time	Yes	103.42	-0.941	.992	Fail to reject
	No	105.25			

Preoperative time preparation (the turnaround time for patient admission and turnaround time for preoperative preparation) with patient satisfaction was tested by ANOVA. The study findings present that there are no significant differences at the level ($P \leq 0.05$) between the turnaround time for registration and turnaround time for preoperative preparation with patient satisfaction, as presented in table (4.11).

Table (4.11): Patient Satisfaction According to Preoperative Time Preparation (ANOVA)

Variables		Patient Satisfaction				
		Mean Square	df	F-value	P-value	Interpretation
TAT for Registration	Between Groups	108.915	40	0.996	.490	Fail to reject
	Within Groups	109.341	109			
TAT for Preparation	Between Groups	762.662	40	0.762	.835	Fail to reject
	Within Groups	1000.662	109			

Chapter Five

Discussion of Findings

This section discusses the findings. It includes the characteristics of patients participating in the study, preoperative time preparation, patient satisfaction with hospital accreditation status, patient satisfaction with characteristics of the patients, preoperative time preparation with hospital accreditation status, and preoperative time preparation with patient satisfaction

5.1 Characteristics of Patients

One hundred fifty patients participated in the study from both hospitals; 100 were from the accredited hospital, and 50 were from the non-accredited one. The researcher carried out this distribution based on the hospital statistics and the recruitment of the patient's criteria in this study.

58.7% of the total patients who participated in the study were males, and the other participants were female equaling 41.3% of the sample. These findings are near the gender distribution among the Palestinian society in 2017 (Population, Housing, and Establishments Census 2017, 2018)

For the age of the patients who participated in the study were between 18 -90 years old, and no patients were less than 18. This may be related to the inclusion criteria of subjects in this study, and the sample includes only adult patients (Population, Housing, and Establishments Census 2017, 2018)

The undergraduate studies and secondary school were the higher percentages for the patients who participated in the survey, with 28.7% and 28.3%, respectively. According to the formal statistics from the central bureau of statistics, the secondary

school was very close to the findings among Palestinian society, which was 23.4%. It is noticed that the undergraduate and above in the results were more than the facts (Characteristics of Education among Individuals of the Palestinian Socithan 2007 - 2017, 2020). These findings may be related to the patients who seek elective surgery than those who are more educative, give more attention to their health status, and treat themselves based on the physician's recommendations.

The average stay for patients who participated in the study was 3.5 days. This result is near the average stay for patients with similar specialties or who underwent an elective operation for general surgery, orthopedics, and neurosurgery (Cifarelli et al., 2021).

Most of the patients who participated in this study were from the obstetrics and gynecology department at 29.3% of the sample, followed by the orthopedic department at 24.7%. This has been related to the inclusion and exclusion criteria, which include only the patients admitted and performed surgical operations to measure the preoperative preparation time and elective cases. So, most surgical procedures are related to gynecology and obstetrics in both hospitals.

5.2 Preoperative Preparation Time

The average TAT for the registration process for the accredited hospital equals 24.58 minutes, while for the non-accredited hospital equals 8.76 minutes. These findings may be related to the financial coverage process available in the accredited hospital as a private hospital, and the process of registration for the elective operation needs verification from the health insurance companies to prevent any discrepancies between the coverage letter and claims later on. While in the non-accredited hospital as

a governmental hospital, it is straightforward due to the government health insurance, and the patients did not pay any fees before the operation.

56% of the total sample showed that the operations were performed according to the scheduled appointment. 64% of those patients were from the accredited hospital, while 52% were in the non-accredited hospital. These findings may be related to the high demands on the government hospital, and many emergency cases interrupt the scheduling of elective operations. This factor is less impact in the private hospital. Also, the accredited hospital has an internal process to check the operational list with the patients/patients' families and the concerned departments to arrange the operation list. In contrast, the non-accredited hospital does not have any mechanism to manage the patient flow on the operation day.

The average TAT for preoperative preparation time in the accredited hospital, which equals 69.4 minutes, is higher than in the non-accredited hospital, which equals 44.45 minutes. These findings may rely on the process implemented in the accredited hospital, mainly the process concerned with ensuring safe surgery and the other process related to ensuring the patient's engagement in the treatment plan, which is less prevalent in the non-accredited hospital; these processes may require more time in the preoperative preparation phase.

5.3 Patient Satisfaction with Characteristics of the Patients

Independent sample T. Test was utilized to test the hypothesis of gender and patient satisfaction; the test indicates no statistically significant differences at the level ($P \leq 0.05$) between the means of patient satisfaction and gender. The study by Dewi,

Yanti & Saputra (2020) matched this result and showed no differences in satisfaction based on gender.

Other patient characteristics (age, place of the patient residency, level of education, department, and length of stay) of the patient who participated in the study were tested by ANOVA. The test results revealed that there are no statistically significant differences at the level ($P \leq 0.05$) between the means of patient satisfaction demographic characteristics (age, level of education, department, and place of residency). These findings are consistent with the study conducted by Dewi, Yanti & Saputra (2020), who concluded no difference in the educational level, and the study conducted by Fang & Fang (2019), who concluded no difference in the place of the patient residency and age of the patients, these results may relate to the fact that both hospitals are referral hospitals and the patients who admitted for the surgery are aware of this issue, and most of the patients who participated in the study were from the middle area and which means that the area belongs to the place of both hospitals. Furthermore, the study conducted by Barghouthi & Imam (2018) concluded no significant differences in the department of the patient. These results may relate to the fact that the department in this study, including the surgical departments and the type of operations, are elective, meaning that the patients planned for the surgery and the admission into these departments according to the type of operations.

Finally, the study results showed a significant difference at the level ($P \leq 0.05$) between the means of patient satisfaction and length of stay. This result matches the findings of the study conducted by Mohebbifar et al. (2017) and concludes that there is a strong relationship between the length of stay and patient satisfaction. Also, these findings may relate to the accreditation requirements of reassessment, continuity of

care, and multidisciplinary patient care plans that developed and the patient touching these efforts and the quality of these processes over time and during the extended stay at the hospital.

5.4 Patient Satisfaction with Hospital Accreditation Status

The study results showed statistically significant differences at the level ($P \leq 0.05$) between the means of patient satisfaction and accreditation status. This result matches the findings of Sulisty, Tamtomo & Sulaeman (2019), who find that patient satisfaction is positively affected by good accreditation status. Also, it confirmed that a better accreditation score is better for patient satisfaction.

5.5 Preoperative Time Preparation with Accreditation Status

Independent sample T. Test tested preoperative time preparation. The study findings present that there are significant differences at the level ($P \leq 0.05$) between preoperative preparation time (TAT for registration, TAT for operation, discrepancy time between operation appointment, and actual time of operation) and hospital status. This domain reflects the importance of time from the patient's point of view, and these results are consistent with the findings of Kreitz, Winters, & Pedowitz (2016), which that waiting time has an impact on patient satisfaction and reduces the waiting time; patient satisfaction will be improved.

5.6 Preoperative Time Preparation with Patient Satisfaction

Independent sample T. Test was utilized to test the hypothesis of the discrepancy between operation appointment and the actual time of operation with patient

satisfaction. The test indicates that there are no statistically significant differences at the level ($P \leq 0.05$) between the means of the discrepancy between operation appointment and the actual time of operation) with patient satisfaction. This result may relate to the fact that may the patient had received instructions or explanation for these discrepancies and the operation may delayed from the hospitals. Furthermore, some causes that affects the operation schedule, such as the prolongation of some cases more than expected, complication happening with patients in the operation that needs more time than expected, and patient aware that the schedule may will exceed than the schedule due to medical reasons.

The study findings present that there are no significant differences at the level ($P \leq 0.05$) between the turnaround time for registration and turnaround time for preoperative preparation with patient satisfaction. This result may relate to the fact that the both hospitals that had challenges in the registration process. In the accredited hospital, the patients had faced challenges related to the financial coverage during the registration and the burden of the shares or the prolong the process of registration. For the non-accredited hospital, this may relate to the process of ensuring that the health insurance is valid and some times required to obtain support document from ministry of health. These points are not related to the care provided in the hospitals and the patients are aware that the process itself is sophisticated and need enhancement.

For the preoperative preparation time, this result may relate to the process implemented in the hospitals to prepare the patient and the patient had received education about the importance of preparation and ensure the safety of procedure before proceed to the next step and performed the operation.

Chapter Six

Conclusion & Recommendations

6.1 Conclusion

The benefits of accreditation are improving patient safety, enhancing the quality of care, and controlling or mitigating the risks in the healthcare processes (Barghouthi & Imam, 2018). The JCI accreditation was utilized to improve the quality of care and maintain patient safety.

This study assesses the effect of JCI implementation on preoperative time preparation and patient satisfaction between accredited and non-accredited hospitals in the west bank; the researcher used the cross-sectional design and surveyed 150 patients using by SEVQUAL instrument from the two hospitals.

The study revealed that patient satisfaction was high in both hospitals in favor of an accredited hospital, and the delay time in the accredited hospital was higher than in the non-accredited hospital. The patients who participated in the sample recommended their relative to the accredited hospital more than the non-accredited one.

The study indicates no significant differences between the means of patient satisfaction attributed and preoperative preparation time to accreditation status. The study showed no significant differences in satisfaction levels with patient demographics (including age, educational level, and length of stay), except for length of stay. The findings showed significant differences between the means of patient satisfaction and preoperative preparation time, including (registration time and preparation time).

6.2 Recommendations

The study discusses patient satisfaction, the delayed time of the preparation process, and the patient recommendations for the hospital based on the services and patient perspective. So, this study and those indicators are vital in the healthcare industry.

Based on these findings, the researchers recommend to hospital leaders and health sector policymakers to obtain accreditation, enhancing patient satisfaction. Also, the lowest response rate among all questions is an opportunity to improve. Therefore, it is recommended for both hospitals to:

1. Ensure that the patient and patient family are engaged in the process and consenting process before the operation, and discuss all the treatment plans, including the procedure, possible side effects or complications, and alternatives before the operation day to reduce the processing time and maintain the patient and patient family rights and enhance the personnel attention.
2. Enhance the turnaround time for patient registration, admission process, and preoperative care by redesigning or eliminating the layers that did not affect or improve patient safety and consume time in these processes.
3. Improve the communications and process related to operation appointments and patient admission process on the operation day to reduce the gap between the scheduled operation time and the actual time of operating, which may be improved by utilizing the anesthesia clinic and preparing the patients clinically and ensure that the financial coverage is ready before the operation day.
4. Assessing the flow of the financial Factors that affecting the registration time like insurance approval .

5. Establish case management department that facilitate all admission issue and coordinate the registration process to reduce the delay time.

6.3 Further Studies

1. Measure other hospital indicators, such as HAIs, Fall Risk Rate, Incidents of Pressure Ulcers, re-do surgeries due to complications...etc.
2. To conduct a qualitative study to understand the all concerned process of operation reservation, preoperative preparation, and the patient experiences with these processes.
3. To develop a special questionnaire that measures the standards related to ensuring safe surgery and assessment of patients, which mainly affect the preparation time and patient satisfaction based on these processes.

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ANNEXES

Annex (1): Cover Letter of the Patient Satisfaction Questionnaire.

استبانة قياس رضا المرضى المنومين

عزيزي المريض / المريض

أنا طالب من كلية الدراسات العليا في الجامعة الأمريكية، وأقوم بجمع البيانات بهدف عمل بحث أكاديمي، حيث تقوم بعمل دراسة مقارنة حول أثر شهادة الاعتماد الدولية للمستشفيات على الوقت اللازم لتحضير المرضى للعمليات ورضى المرضى في مستشفى حاصل على شهادة الاعتماد الدولية لجودة الخدمات الصحية المقدمة للمرضى ومستشفى آخر غير حاصل على شهادة الاعتماد الدولية لجودة الخدمات الصحية.

علما بأن الأسئلة التالية هي تعبر عن رأيك بالخدمات المقدمة خلال فترة الإقامة في المستشفى، وستحتاج هذه الأسئلة أقل من 5 دقائق لكي تتمكن من تعبئة الاستبيان بشكل كامل.

إن كافة المعلومات التي سنحصل عليها من هذا الاستبيان سيتم الحفاظ عليها بسرية وخصوصية تامة، كما نؤكد أنه لا يطلب اسم المريض/ة المشارك/ة في البحث وهذه المعلومات ستستخدم لأغراض البحث العملي فقط. كما يحق لكم عدم المشاركة في البحث وأن مشاركتكم في تعبئة الاستبيان هو بمثابة الموافقة على المشاركة في الدراسة.

شاكرا لكم مشاركتكم لنا في هذا البحث، ونحن جاهزون للإجابة عن أي استفسار.

مع الشكر الجزيل

محمد دعسان – طالب ماجستير

كلية الدراسات العليا – الجامعة العربية الأمريكية

Annex (2): Questionnaire.

Patient Satisfaction – SERVQUAL MODEL

Please read each one carefully, keeping in mind the medical care you are receiving now. We are interested in your feeling, good and bad, about the medical you have received.

Department		Residence Area		Age	
Duration of Staying		Level of Education		Gender	

No.	Item	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Tangibles						
1.	Modern equipment					
2.	Physical facilities					
3.	Clean and hygienic appearance					
4.	Clean smart staff					
5.	Reasonable waiting time					
Reliability						
6.	Sympathetic attendance to patients					
7.	Dependable services					
8.	Punctual staff					
9.	Accurate records					
Responsiveness						
10.	Easy appointment / attendance					
11.	Prompt service					
12.	Staff always willing to help					
13.	Prompt response to any request					
Assurance						
14.	Can trust staff					
15.	Feel safe					
16.	In-care of staff					
17.	Polite staff					
18.	Adequate					
19.	Support					
Empathy						
20.	Individual attention to patients					
21.	Readiness for personal attention					
22.	Staff aware of the needs of the patients					
23.	Staff have best interests of the patients in their heart					
24.	Convenient working hours					

Annex (3): Questionnaire – Arabic Version.

استبيان رضا المرضى					
تمكس العبارات التالية رأيك في الرعاية الطبية، رجاء إقرأ كل عبارة بتمعن أخذاً بعين الإعتبار الرعاية الطبية التي تتلقاها حالياً، ونحن مهتمون برأيك سواء كان جيداً أو سيئاً.					
القسم		العمر		مستوى التعليم	
مدة الإقامة		الجنس		مكان السكن	
العبارة / السؤال	أوافق بشده	أوافق	لست متأكد	لا أوافق	لا أوافق بشده
1. توفر معدات حديثة في المستشفى					
2. توفر المرافق العامة للمراجعين مثل (اماكن انتظار ، مياه للشرب، دورات المياه)					
3. مبنى المستشفى نظيف وبيئته صحية					
4. الموظفون يظهرون بمظهر لائق وأنيق					
5. وقت الانتظار ملائم لكافة الإجراءات والخدمات					
6. الموظفون يتعاملون بأسلوب لطيف وبمهنية عالية					
7. التشخيص دقيق والعلاج صحيح					
8. الموظفون يتولجدون على رأس عملهم في الوقت المحدد					
9. إجراءات التوثيق في السجلات دقيقة					
10. المواعيد والاختال للمستشفى يتم بسهولة					
11. الخدمات في المستشفى تُقدم بشكل سريع					
12. الموظفون مستعدون للمساعدة دائماً					
13. الموظفون يتجاوبون مع طلبات المرضى بشكل سريع					
14. المريض يتلق بالطاقم الطبي					
15. شعور المريض بالأمان داخل المستشفى					
16. اهتمام الطاقم الطبي بحالته الصحية					
17. موظفو المستشفى يتعاملون مع المرضى بأدب					
18. الخدمات الصحية والعلاجية التي تقدم في المستشفى كافية					
19. الموظفون يقدمون الدعم للمريض					
20. الطاقم الطبي يبدي اهتماماً شخصياً بالمرضى					
21. تفعل الموظفون للاقتراحات والملاحظات بصبر رجب					
22. الطاقم الطبي يترك احتياجات المريض الصحية					
23. المريض هو الأهم عند الطاقم الطبي					
24. تُوفر الوقت الكافي للحصول على الخدمة الطبيه المطلوبه					

الرجاء الاجابة على الاسئلة التالية والمتعلقة بوقت الاجراء الجراحي:	
1. الوقت الذي استغرقته الاجراءات منذ وصولك للمستشفى حتى انتهاء اجراءات التسجيل (بالدقيقة)	
2. الوقت الذي استغرقته الاجراءات منذ دخولك للقسم حتى انتقالك لقسم العمليات (بالدقيقة)	
3. هل هناك فرق بين موعد اجراء العملية عند الحجز المسبق وموعد اجراء العملية الفعلي	<input type="checkbox"/> نعم <input type="checkbox"/> لا

Annex (4): Permission Letter and Approval To use the Questionnaire.

Researcher Response and Permission

Dear Mr. Dasan

I give you my consent to use whatever information you supply in my published article in the health science journal, including the questionnaire.

BR.

Eba'a Barghouthi.

20/04/2022

Permission Request

Date: 10/04/2022

Dear Mr. Barghouthi:

I am a master's student from Arab American University conducting my thesis under the title: The Effect of JCI Implementation on the Preoperative Time Preparation and Patient Satisfaction, under the supervision of Dr. Lubna Harazni and you contact her through the email below:

Lobna.harazni@aaup.edu

I request permission to use the SERVQUAL questionnaire in my study.

If you accept, please reply to this email.

Thanks

Mohammad Dasan,
Master Student – Critical Care
Graduate Studies – Arab American University
Ramallah - Palestine

Annex (5): Permission Letter from Arab American University to Istishari Arab Hospital.

Arab American University
Faculty of Graduate Studies



الجامعة العربية الأمريكية
كلية الدراسات العليا

2022/6/22

حضرة السادة المستشفى الإمتشاري المحترمين
الدكتور عاطف الريماوي المحترم

تسهيل مهمة بحثية

تحية طيبة وبعد،

تهديكم كلية الدراسات العليا في الجامعة العربية الأمريكية أطيب التحيات، وبالإشارة إلى الموضوع أعلاه، تشهد كلية الدراسات العليا في الجامعة أن الطالب محمد عبد الرزاق مصطفى دحمان والذي يحمل الرقم الجامعي 202012191 هو طالب ماجستير في برنامج العناية المكثفة ويعمل على رسالة الماجستير الخاصة به بعنوان:

"The effect of Implementing JCI standers on the preoperative time preparation and patient satisfaction"
تحت اشراف الدكتورة لبنى حرازنة" : نأمل من حضرتكم الإيجاز امن بأزم أسماحته تحصون على المعلومات اللازمة لدراسة، طمأ أن المعلومات مستخدم لغاية البحث فقط وسيتم التعامل معها بقافية السرية، وقد أعطيت هذه الرخصة بناة على طلبها.

وتفضلوا بقبول فائق الاحترام

معيد كلية الدراسات العليا

د. نوار قطب



Page 1 of 1

Annex (6): Permission Letter from Arab American University to Palestine Medical Complex Hospital.

Arab American University
Faculty of Graduate Studies



الجامعة العربية الأمريكية
كلية الدراسات العليا

2022/E/22

حضرة السادة وحدة البحث العلمي والتعليم الصحي / وزارة الصحة الفلسطينية المحترمين
الدكتور عبدالله القواسمة المحترم

تسهيل مهمة بحثية

تحية طبية وبعد،

تهديكم كلية الدراسات العليا في الجامعة العربية الأمريكية أطيب التحيات، وبالإشارة إلى التوضيح أعلاه، تشهد كلية الدراسات العليا في الجامعة أن الطالب محمد عبد الرزاق مصطفى دعتسان والذي يحمل الرقم الجامعي 202012191 هو طالب ماجستير في برنامج الكلية المكثفة ويعمل على رسالة الماجستير الخاصة به بعنوان:

"The effect of Implementing JCI standers on the preoperative time preparation and patient satisfaction" تحت إشراف الدكتورة لبنى حرارة، نأمل من حضرتكم الإيعاز لمن يلزم مساعدته للحصول على المعلومات اللازمة للدراسة، علماً أن المعلومات مستخدم لغاية البحث فقط وسيتم التعامل معها بغاية السرية، وقد أعطيت هذه الرسالة بناءً على طلبها.

وتفضلوا بقبول فائق الاحترام

عميد كلية الدراسات العليا

د. نوار قطب



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Annex (7): Approved Letter from Istishari Arab Hospital to Arab American University



IAH Research Application Form

Date	30/06/2022
Name of investigator	Mohammad A.Raziq Mustafá Dasan
Mobile No.	+970-595017242
Email	Mohammad.dasan@iah.ps
Expected start date	01/07/2022
Expected completion date	31/08/2022
Name of Company/University	Arab American University
Attached needed	
Investigator CV	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Study Proposal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Consent Form	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Data Collection Tools	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Informed Consent (Arabic & English)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
For HR Department	
Receiving Date	30/06/2022
Application completed	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Transfer Date	03/07/2022
Educational Officer Signature	<i>[Signature]</i>
For Ethical Committee	
Receiving Date	04/07/2022
Ethical Committee Approval	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Ethical Committee Note	questionnaire based study Approved
Head of Ethical committee Sig.	<i>[Signature]</i>
CEO Note	OK
CEO Sig.	<i>[Signature]</i>

- For Non-Experimental Research only

Code:GLD.12.2/1 Type: NC / 01 Issue No.: 01/02 Issue Date: 20/06/2022

Annex (8): Approved Letter from Palestine Medical Complex Hospital to Arab American University

State of Palestine
Ministry of Health
General Directorate of Education in
Health and Scientific Research



دولة فلسطين
وزارة الصحة
الإدارة العامة للتعليم الصحي
والبحث العلمي

Ref:
Date:

الرقم: 1007/2022
التاريخ: 2022/11/22

عطوفة الوكيل المساعد لمجمع فلسطين الطبي المحترم،،
تحية واحترام،،،

الموضوع: تسهيل مهمة بحث

يرجى التكرم بتسهيل مهمة الطالب: محمد عبد الرازق مصطفى دعسان - ماجستير رعاية
حديثة - الجامعة العربية الأمريكية، لعمل بحث بعنوان:

' The effect of implementing JCI standards on the preoperative time
preparation and patient satisfaction'

حيث سيقوم الباحث بجمع معلومات من خلال تعينة استبانة الدراسة من المرضى، وذلك في:

- مجمع فلسطين الطبي

على ان يتم الالتزام بالمحافظة على اخلاقيات البحث العلمي وسرية المعلومات،
على ان يتم الالتزام بجميع تعليمات واجراءات الوقاية والسلامة الصادرة عن وزارة الصحة بخصوص
جائحة كورونا، وتحت طائلة المسؤولية. وإبراز شهادة التطعيم قبل دخول مرافق وزارة الصحة.
على ان يتم تزويد الوزارة بنسخة PDF من نتائج البحث، التعمد بعدم النشر لحين الحصول على موافقة
وزارة الصحة.

مع الاحترام،،،

د. عبد الله القواسمي

رئيس وحدة التعليم الصحي والبحث العلمي



نسخة: عميد كلية الدراسات العليا المحترم/ الجامعة العربية الأمريكية

Appendix (9): Name of Experts Validate the Questionnaires.

- A. Ahmad Khatib, Ph.D., Accreditation Consultant, and Former JCIA Surveyor /
Jordan.
- B. Mohammad Mhameed, Director of Quality Department – Ibn Sina Hospital /
Palestine.
- C. Eba'a Barghouthi, Ph. Dc, Chief Quality Officer – Istishari Arab Hospital /
Palestine.

ملخص الرسالة

خلفية العلمية للبحث: تطبيق معايير شهادة الجودة الاعتمادية في المستشفيات يؤثر على كثير من الإجراءات التي تتم داخل المستشفى، وذلك بهدف تحسين جودة رعاية المريض وسلامته خلال وجوده في المستشفى. وقت تحضير تجهيز المريض قبل العمليات الجراحية يعتبر من المراحل المهمة والحاسمة خلال فترة تواجد المريض داخل المستشفى، كونها تؤثر على رضى المريض عن الرعاية الطبية كمؤشر يستخدم لتقييم الخدمة والرعاية التي تقدم ويستخدم لقياس مدى تأثير تطبيق معايير الاعتمادية الدولية. هذه الدراسة تهدف لتقييم تأثير تطبيق الاعتمادية وقت التحضير قبل العملية ورضى المريض عن طريق مقارنتها بين المستشفيات التي تطبق الاعتمادية والمستشفيات التي لا تطبقها.

طريقة الدراسة: تم عمل الدراسة على شكل دراسة مقطعية لقياس رضى المرضى ووقت تحضيرهم قبل العمليات. تم جمع المعلومات واللازمة خلال شهري تموز واب من عام 2022 عن طريق استخدام عينة ملائمة واستخدام أداة مسائلة تسمى SERVQUAL. حجم العينة كان 150 مريض قاموا خلال هذه الفترة بإجراء عمليات جراحية مبرمجة وليست طارئة ومن هم أعمارهم فوق 18 عام، تم تحليل العينة باستخدام برنامج SPSS.

نتيجة الدراسة: رضى المريض عن الرعاية كان مقبول في المستشفيات بمتوسط يساوي (4.33). وتم إيجاد فرق بحثي على مستوى ($P \leq 0.05$) بين وقت تحضير المريض قبل العملية مع حالة الاعتمادية. بينت الدراسة انه لا يجد فرق بحثي على مستوى ($P \leq 0.05$) بين رضى المرضى وخصائص المريض الفسيولوجية مثل (العمر، الجنس، درجة التعلم، القسم ومكان الإقامة)، مع وجود استثناء بسيط هو طول فترة الإقامة. ووضحت الدراسة أيضا انه لا يوجد فرق بحثي على مستوى ($P \leq 0.05$) بين وقت تحضير المريض قبل العملية ورضى المريض.