



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

Impact of waiting time on patients' satisfaction and health care service quality at of hospital outpatient department

MOHAMED ABDULLAH ALNASSER, MSN, RN

m7md666@hotmail.com

RAKAN BANDAR Q ALOTAIBI,BSN,RN

Hoob4@hotmail.com

Abstract:

The study aimed to reveal the impact of waiting time on patient satisfaction and also the quality of the health care service within the hospital's patient department, and to attain the study's objectives, the scientist used the descriptive analytical approach by applying electronic accuracy to a random sample of (150) patients. The findings disclosed a bearing of waiting time on patient satisfaction and quality of aid services within the hospital's patient department, and also the results disclosed that the standard of health services provided in hospital patient clinics for patients came in at moderate to high scores. The findings additionally disclosed that patient satisfaction levels within the hospital's patient department came in moderate to high scores, the findings indicated that the most causes resulting in the long waiting amount within the hospital's patient department came in moderate to high grades, and also the results



ultimately disclosed solutions that scale back waiting time within the hospital's patient department came in at high scores.

1. Introduction

The hospital is a service organization responsible for providing integrated health services, diagnostic, therapeutic, educational and research, and the hospital as an administrative system that uses human, technical, material and financial resources whose sizes and values increase in line with technical and health progress, and the demand for health services is increasing due to multiple factors, the most important of which are wars and their effects, the increase in the population and the increase in accidents Roads, pollution rates, industrial accidents, etc., and in agreement with this, the challenge appears for the hospital administration and its workers to provide health services of distinctive quality, as the quality of health services is a very important element in the field of hospital management as it is related to the most important aspect of a person's life, which is his health (Wandebori 2017).

Countries pay great attention to upgrading the level of health services by using many means, including the establishment of new hospitals and the development of existing ones to improve the level of services, especially those large hospitals that are transformative, therapeutic and research centers that contribute greatly to improving the level of health services provided. Health services are concerned with human life and the



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

relationship between them is positive, so change in them leads to change in human life in the same direction.

The outpatient department services is one of the important aspects of hospital management, as the outpatient clinics are a mirror of the hospital, which reflects the hospital's work as the first point of contact between the patient and the hospital's staff. A large portion of the community visits outpatient clinics, and the quality of healthcare services is of the utmost importance (Sharma & Chowhan, 2013).

Waiting time in hospitals or other organizations is one of the most important indicators or criteria that show the effectiveness of the organization in performing its work, and in hospitals in particular, there are costly energies and capabilities, so it must be properly invested, whether in terms of human energies, devices, equipment, beds, etc (Mohsin et al., 2007).

In view of the increase in the number of patients for these clinics, it is therefore important to study the level of services provided and patient satisfaction in these clinics and try to develop performance in them. Whereas patients see waiting time as one of the most important factors that determine the quality of health services provided, and patients' complaints are most due to the long waiting time, so this research tries to reveal the reality of the long waiting time in the outpatient department of the hospital (Al-Gharibeh. & Al-Qudah., 2012).



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

Long patient waiting times are usually seen in outpatient facilities, and this difficulty contributes to a host of public health problems, including poor access to care, interrupted hospital work patterns, and patient dissatisfaction (Boudreaux & O’Hea, 2004).

Patient satisfaction is the degree to which an individual considers the health care service to be effective and useful. In recent years, various measures have been taken that call for determining the level of efficiency of utilizing health services. One of these measures is patient satisfaction, which is considered an indicator of the quality of health care. In other words, patient satisfaction is an important measure of service quality in healthcare organizations. It is also an important tool for management, research and planning. Patient satisfaction gives information about the provider of health services, and the extent to which they meet the patients' values and expectations, which is the final judgment on the quality of these services (Bahrapour & Zolala, 2005).

Patient satisfaction is one of the primary indicators of health management that can help improve service quality in healthcare settings. It is the primary and most important step that must be ascertained in order to identify institutional bottlenecks that hinder the quality of services (Asres et al., 2020). Many patients are not satisfied while waiting until entering the clinic, and in this research we will focus on these problems to find out the possible reasons through which we find solutions that help us to reduce the waiting time, and we also focus on the extent of the satisfaction of the reviewers in terms of the waiting time and the extent of



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

its impact on them. In order to help us provide a high quality sponsor and obtain a high percentage of customer satisfaction.

1.1 Research problem

The health services sector is one of the most important service sectors, so its development and attention to it are among the things that we cannot afford to lose sight of in order to obtain quality care services. There is no doubt that implementing the dimensions of service quality and achieving patient satisfaction has become the focus of concern for workers in the public and private health sector, and most health institutions seek to implement the dimensions of service quality, as the application of these dimensions and satisfaction is important to improve patient outcomes. That this research sheds light on the length of waiting time, as it is considered a contribution that enables leaders and workers in the health sector to benefit from realistic experiences, to find out the reasons for the low effectiveness of this sector and thus improve the effectiveness of its performance by shortening the waiting time, to act as pioneering organizations that take this experience with the aim of To increase the effectiveness and productivity of health services, keep them in line with administrative development, and global competition.

The waiting time in the outpatient clinics to meet the doctor is one of the most important criteria for the quality of health services provided to patients, especially that waiting for a patient and thus greatly affects the degree of patient satisfaction with the services provided to them in the hospital Therefore, the problem of the study lies in the lack of



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

information regarding the levels of application of waiting time on patient satisfaction and the quality of health care services, this made the researcher direct his attention to delve into the study of this topic, which was and is still very important for the development of the health sector. Faced with this reality, the current study aims to reveal the effect of waiting time on patient satisfaction and the quality of health care services in the outpatient department of the hospital.

1.2 Research Questions

The main question of this research is: **"What is the impact of waiting time on patient satisfaction and the quality of healthcare services in the hospital's outpatient department?"**

This main question is subdivided into the following sub-questions:

1. What are the levels of application of service quality dimensions in the hospital's outpatient department?
2. What are the levels of patient satisfaction in the outpatient department of the hospital?
3. What are the main reasons leading to the long waiting period in the hospital's outpatient department?
4. What are the solutions to reduce the length of waiting time in the hospital's outpatient department?



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

1.3 Research Significance

The importance of this research comes from the significance of patient safety which represent a worldwide issue and an important area of research. Studies of impact of waiting time on patient's satisfaction and health care service quality at of hospital outpatient department perspective are scarce, both from a bedside health care staff and a managerial perspective. Therefore, conducting such a research regarding this topic is expected to have a high positive reflections and significance that can be summarized as in the following:

- 1) This research will be fruitful source of information on the patients' perceptions of waiting time and health care service quality, which will help in advancing patient safety as long as patient safety represents an imperative area in health care.
- 2) This research contributes to bringing this topic to the realm of scientific research due to its importance in the field of administration and health alike.
- 3) Measuring patients' satisfaction perception of waiting time and health care service quality will be crucial for directors in hospital outpatient department in order to enhance safety by taking care of adverse events and benchmark towards other health organizations.
- 4) Health care and medicinal services organizations can benefit from the utilization of patient and healthcare workers' recommendations of patient safety in enhancing and improving it. Since healthcare workers are associated with direct contact with patients, it might be



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

useful to consider their recommendations for development of health care service quality.

- 5) The researcher hopes that this study will help public hospitals in improving their health services and increase patients' satisfaction with the health services they receive in these hospitals.
- 6) This research would represent a good reference for the future studies as long as it would provide the subsequent researchers and interested scholars in the field of patient safety with valued literature, recommendations and suggestions that are important for their proposed studies in the light of contemporary health-care safety and medicinal services thoughts. And opening the way for studying the topic from various aspects through the information, results and recommendations that are obtained related to the topic of the research.

2. Literature review

2.1 Waiting time

Outpatient medication waiting time is a problem that often occurs in hospitals (Ndukwe et al. 2011). This can trigger many complaints from patients wanting to get appointments and medication quickly so they can go home (Susanto & Chalidyanto, 2020). The correlation between patient expectations and level of satisfaction is high, and it is important that the patient's expectations are (Wandebori 2017).



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

Patient waiting time is the amount of time it takes for patients who seek care in health care units before they attend for counseling and treatment (Silva, 2010). Long waiting period has always been seen as a frustration for patients and thus appears to be a consistent and important potential cause of patient dissatisfaction. A strong inverse relationship between patient satisfaction and waiting time has been demonstrated by several studies (Preyde, 2012). As healthcare solutions become more personalized and consumer oriented, the need to provide overall patient satisfaction is becoming more and more important (Bleustein, 2014).

Patient waiting is one of the most important factors that affect the level of use of the health services provided, as patient satisfaction is one of the indicators and criteria in evaluating the quality of the health sector, so the latest methods of measuring the performance of the health sector can be well evaluated by measuring the level of satisfaction patient of waiting period. There are two important indicators indicating the quality of the health services provided in the outpatient, namely (Silva, 2010):

- A. Waiting time in the outpatient to book an appointment with the specialist doctor: It is the time period between the patient's request for a review and between obtaining the deadline given to visit the treating doctor
- B. Waiting time in the outpatient to consult and treat the doctor: It is the time between the patient's attendance at the outpatient and the first moment of the actual meeting with the doctor.

The reasons for the long waiting time:



There are three main reasons for long waiting times (Press Releases, 2001) (Release Press, 2001).

1. The nature of the health services provided, as it differs from one patient to another according to the medical situation (so there is no typicality in providing health service).
2. The acute shortage of health personnel to meet the increasing demand for these services
3. The obvious problems in the registration system and dates, and the emergence of intended and unintended violations.

2.2 Patient's satisfaction

Patient satisfaction is defined as an individual's positive evaluation of distinct dimensions of health care and is an important component in evaluating the service provided by a hospital (Meles et al., 2014; Narinder and Caini, 2013). Patient satisfaction is a measure of the success of the service provided by the health institution (Asres et al., 2020).

In recent years, there has been an increasing interest in patient satisfaction as a measure of outcome and the quality of care. Patients seek fast and convenient services in healthcare centers (Merkouris et al., 2013).

Patient satisfaction improves clinical outcomes, patient retention, and reduces medical malpractice lawsuits. Providing high-quality, patient-centered healthcare services are of utmost importance. Thus, patient satisfaction, although a mediator is a very effective indicator for



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

measuring the success of health outcomes and plays a major role in improving the quality of health services (Prakash, 2010), measuring patient satisfaction has become an integral part of hospital management strategies for quality assurance and accreditation in most countries (Ambelie, 2014). One of the most modern methods of verifying the quality of care is to measure a patient's opinion as a user of services. The assessment of patient satisfaction is an important evaluation indicator because it helps in understanding their expectations as a client and in determining the needs and expectations of the health system (Pini et al., 2014).

Patient satisfaction is defined as the patient's general orientation toward his healthcare experience, and includes both cognitive and emotional manifestations through previous experience. Keegan (2003) defined the patient's satisfaction as being the positive or negative feelings emanating from the patient's point of view regarding the services provided to him.

Asadi -Lari (2004) showed that patient satisfaction indicates the extent of an individual's awareness in comparison to his expectations. Keegan (2003) indicated that patient satisfaction expresses a personal attitude towards his experience with the health institution he deals with this satisfaction includes cognitive, emotional and related aspects of previous experiences.

Lutz & Bowers (2000) affirms that the interest in measuring patient satisfaction is:



1. The general trend towards comprehensively caring for the needs and requirements of patients.
2. Increasing the costs borne by health institutions steadily.
3. Focus on improving healthcare outcomes and procedures
4. Increase the patient's access to information about his health status and available options.

Crow et al (2003) confirmed that there are a set of important factors that affect the patient's satisfaction, namely:

1. The patient's expectations regarding the services provided to him.
2. The patient's previous experience.
3. The relationship of the service provider with the patient.
4. Careful selection of the service provider.

2.3 Impact of waiting time on Patients satisfaction

Patient satisfaction is the extent to which a patient is satisfied with the healthcare they receive from their provider (Farley et al., 2014). Satisfaction with healthcare services may affect clinical outcomes, patient retention, and allegations of medical malpractice. Hence, it is an important indicator of the quality of work performed by doctors and hospitals. There is a negative relationship between waiting time and patient satisfaction. Waiting time can affect a patient's use of health services negatively because it affects the patient's desire to return to the clinic, which ultimately affects continuity of care. Therefore, reducing waiting time may improve patient satisfaction and increase the desire to continue receiving care in the same healthcare facility. Several studies



have shown that longer waiting times have been associated with lower patient satisfaction (Anderson et al., 2007). According to a 2015 study conducted in Saudi Arabia, the only factor that had a significant impact on overall satisfaction was waiting time, as those who waited more than 30 minutes reported that they were not satisfied with the service provided (Med et al., 2015). Another study conducted at King Abdulaziz University found that 65.3% of patients reported that a long wait time could affect their satisfaction (Service et al., 2006).

Patients prefer to seek help in large hospitals, where better medical equipment and specialists are available. Nevertheless, patients have to face long waiting times in the outpatient departments of large hospitals. Long waiting times lead to dissatisfaction. Patient satisfaction is based on an evaluation of their hospital experience. It is an important factor in healthcare quality assessments (Al-Harajin, 2019). To improve patient satisfaction, in addition to hospital response in improving the non-medical aspects of care, physicians are advised to spend more time with their patients. Nevertheless, long periods of patient-doctor contact will increase waiting times if the number of doctors and patients does not change. Several methods have focused on improving patient satisfaction by reducing the Actual Wait Time (Wei-Min et al., 2019).

Appointment systems, patients can make an appointment and then visit a doctor at the appointed time. Appointments help reduce waiting times abroad and the number of patients waiting in outpatient departments (Su, Wan, & Wang, 2019). Nevertheless, they may incur losses to the hospital



if patients do not arrive on time. Lean Six Sigma helps identify potential process failures (Godley & Jenkins, 2019). By redesigning the process, AWT can be shortened, which improves patient satisfaction. Lean principles can also be used to improve the process. When Lean principles are applied, non-servicing activities will be identified and phased out, and new methods will be used to solve the problem (Vashi, 2019). In addition, hospitals are also advised to shorten the AWT period by properly stimulating clinicians and enhancing collaboration between clinical teams (Sun, 2017).

In the outpatient departments of large hospitals, the number of patients fluctuates. AWT is directly related to the number of patients: the more patients visit the outpatient departments, the greater the waiting time. Therefore, the information that many patients are in outpatients today can serve as a user interface and can be made available to patients in advance (Wei-Min et al., 2019).

2.4Health care service quality

It can be said that the British nurse "Florence Nightingale" was the first to use this concept in the field of health services in 1853, and during her supervision of providing health care services in military hospitals, she introduced some performance and improvement standards to her work, which led to an improvement in the results of The dimensions of service quality aim at providing health services that are more efficient, safer, more accessible, and more convincing to patients to raise their levels of satisfaction with them .



The dimensions of service quality are numerous and difficult to address in one study, which is the set of characteristics and characteristics that together make up aspects of service quality, and each of them is measured to assess the general or total quality of services. Prominent theorists in this field dealt with different dimensions of quality (Desai, 2011).

Objectives of health care service quality:

Javadi and G. (2011) argue that the objectives of health service quality are:

1. Ensuring the physical and psychological health of the beneficiaries.
2. Providing a health service of distinctive quality that will achieve the satisfaction of the beneficiary (the patient).
3. Knowing the opinions and impressions of beneficiaries (patients) and measuring their level of satisfaction with health services is an important means in the field of administrative research, health care planning and policy development.
4. Development and improvement of communication channels between beneficiaries of the health service and its providers.
5. Enabling health organizations to perform their duties efficiently and effectively.
6. Achieving better productivity levels, as reaching the required level of health care provided to the beneficiaries (patients) is the main goal of quality implementation.
7. Improving the morale of workers, as the private health organization is the one that can enhance the confidence of its workers and make



them feel that they are effective members, which leads to improving their morale and thus obtaining the best results.

2.5 Impact of waiting time on health care service quality

The World Health Organization defines patient waiting time for healthcare services as one of the key metrics for a responsive health system. The problem of the pending waiting time in Chinese health systems is in two aspects, one of which is the long waiting time in the registration and admission window. This is mainly because most Chinese hospitals are accustomed to not setting the date, and patients are registered when they arrive at hospitals at the service window, thus blocking the unplanned flow of patients in hospitals. The straightforward and easy appointment scheduling process is the first step for patients' timely access to healthcare services. Multiple appointment scheduling methods (including web based, landline, smartphone, and ATM) were used to replace the traditional process where patients were required to physically schedule an appointment within hospitals (Cao, 2011).

The flip side of the problem is the long waiting time between the time of the appointment and the time doctors attend to patients. The increased patient turnover may have implications for the overall quality of care, such as reduced patient safety and increased tensions between clinicians and patients (Xian Evening News, 2013). Hence, the rapidly increasing demand and limited healthcare resources require health services that must rely on improving flow control and allocating better capacity to reduce the negative impact of long patient waiting time. Organizational and

structural changes must be introduced with targeted planning and demand-oriented scheduling of outpatient care (Chen, 2015).

Among many health care services quality issues that may be related to long patient waiting times, the problem of patient dissatisfaction with care has attracted the most attention. Bar-Dayana et al (2002) found that clinic wait time was a major determinant of dissatisfaction among patients seeking medical services. Patient waiting times were also found to be related to patients' perceptions of other aspects of care that were not directly related to satisfaction with medical care. Bleustein et al (2014) found that longer waiting times can reduce patients' awareness of clinicians' ability and reduce patients' confidence in the health services provided. Patient wait times have a significant impact on patients' perceptions of caregivers' ability to reliably and accurately perform health services, patients were more likely to be satisfied if they did not have to wait for a long time (Zhenzhen and Calvin 2017).

Abdullah (2005) conducted a study aimed at identifying the different procedures applied to outpatient clinics, to search for potential problems that may lead to an excessive increase in waiting time, as the waiting time for the patient reflects the degree of satisfaction with the quality of the service provided, the study found three reasons that led to an excessive increase in waiting time: the length of the registration time, the insufficient number of employees in the reception service, and the insufficient percentage of doctors. Thus, the study recommended reducing registration time and increasing the number of doctors.



Jawahar (2007) also conducted a study aimed at detecting the level of patient satisfaction and obtaining feedback for the services provided in the outpatient department, as patient satisfaction is considered one of the most important components to achieve competitive advantage in the health sector, and the study concluded that the waiting time is relatively long for patients In general, but in some consulting clinics, the waiting time exceeds three hours, and the treatment of the nursing staff is not good and needs improvement.

Research Methodology:

The research approach is one of the key parts of scientific research. To achieve the objectives of the current research to use the descriptive and analytical approach that is appropriate to the nature and variables of the research, The researcher also uses the questionnaire as a tool for research and distributes it to a sample of patients to recognize the impact of waiting time on patient satisfaction and the quality of healthcare service in the hospital's outpatient department.

Population and sample research:

The research community is confined to patients in the hospital's outpatient department, and the research community consists of all (--) Since the comprehensive inventory method could not be used to collect data for the current study, inter alia, for time, effort and cost, the researcher was satisfied with a random sample representing the research

community of 150 patients in the hospital's outpatient department, and table 1 describes the distribution of the study sample in terms of demographic variables.

Table (1): Distribution of the sample according to demographic characteristics

Variable	Category	<i>f</i>	%
Gender	Female	88	58.7
	Male	62	41.3
Age	Less than 20 years	23	15.3
	21-35 years	58	38.7
	36-50 years	24	16.0
	more than 50 years	45	30.0
Employment status	Employee/ staff	40	26.7
	Housewives	38	25.3
	Retired	15	10.0
	Students	47	31.3
	Others	10	6.7
Self-reported health status	Poor	17	11.3
	Fair	22	14.7
	Good	53	35.3
	Very good	32	21.3
	Excellent	26	17.3
Education level	High school or below	31	20.7
	Bachelor's Degree	110	73.3
	Master's Degree	6	4.0
	Doctoral Degree	3	2.0

Table (1) shows that:

- For **gender** variable, the highest category (male) by frequency (88) percentage (58.7%), but the lowest category (female) by frequency (62) percentage (41.3%).
- For **age** variable, the highest category (21-35 years) by frequency (58) percentage (38.7%), but the lowest category (Less than 20 years) by frequency (23) percentage (15.3%).

- For **Employment status** variable, the highest category (Employee/ staff) by frequency (40) percentage (26.7%), but the lowest category (Others) by frequency (10) percentage (6.7%).
- For **Self-reported health status** variable, the highest category (Good) by frequency (53) percentage (35.3%), but the lowest category (Poor) by frequency (17) percentage (11.3%).
- For **Education level** variable, the highest category (Bachelor's Degree) by frequency (110) percentage (73.3%), but the lowest category (Doctoral Degree) by frequency (3) percentage (2.0%).

Reliability

The stability of each dimension of the questionnaire and questionnaire as a whole was calculated using the Cronbach Alpha stabilization coefficient (Cronbach Alpha) after testing it on a reconnaissance sample outside the research sample, consisting of 30 patients in the hospital outpatients. Table 2 shows the stability factors of the alpha.

Table 2: Cronbach Alpha Coefficients for Resolution and Resolution Dimensions as a Whole

dimension	#Paragraphs	Cronbach Alpha
Patients' Waiting Time	7	0.872
Health Care Service Quality	19	0.863
Patients' Satisfaction	7	0.859
Solutions to Reduce the Length of Waiting Time in the Hospital's Outpatient Department	7	0.774
The tool as a whole	40	0.907

From the previous table, the Cronbach alpha coefficients for the study axes are high and acceptable, at 0.872 for the first axis: Patients'

Waiting Time, and for the second axis: Health Care Service Quality (0.863), and for the third axis: Patients' Satisfaction (0.859), and for the fourth axis: Solutions to Reduce the Length of Waiting Time in the Hospital's Outpatient Department (0.774), Cronbach also amounted to alpha for the questionnaire as a whole (0.907), indicating that the sample members' answers to the questionnaire were very consistent, indicating their understanding of the questionnaire and the possibility of dealing with the questionnaire with a high degree of confidence, i.e. a high and acceptable degree for the purposes of applying the questionnaire.

Relative weight and resolution correction

scale was used to correct the questionnaire according to the following grades chosen by the respondents: (degree(1) crosses Strongly disagree, (2) cross disagree, (3) cross Neutral, (4) cross agree, (5) cross Strongly agree). In order to explain the arithmetic averages of the estimates of the study sample on each paragraph of the questionnaire and its scope as a whole, the following division in Table (3) was relied on to judge the arithmetic averages.

Table 3 The arithmetic mean scale and its interpretation

Very Low	Low	Medium	High	Very High
1-1.80	1.81—2.61	2.61-3.40	3.41-4.20	4.21-5.00

The result and discussion of the study:

View and discuss the results of the main question of this research is: "What is the impact of waiting time on patient satisfaction and the quality of healthcare services in the hospital's outpatient department?"

To answer the main question, to ensure the results of the variability of the independent variables, the Tolerance test, and the inflationary variance (VIF) test was applied the following table shows this.

Table (4): Results of Tolerance tests and inflationary variation coefficient

Independent Variables	Tolerance	VIF
Health Care Service Quality	0.766	1.305
Patients' Satisfaction	0.766	1.305

Dependent variable: Patients' Waiting Time

The table shows that the worth of the inflationary variance issue (VIF) was for all freelance variables of but ten and tolerance values of quite 0.05, that indicates the homogeneity of the variability within the study areas and thus the pertinence of the analysis of multiple regression.

To answer the main question, the correlations between the study areas were extracted " Impact of Waiting Time on Patients Satisfaction and Health Care Service Quality of Hospital patient Department", and to find the impact of domains (Health Care Service Quality, Patients' Satisfaction) on the domain (Patients' Waiting Time), the subsequent table shows this.

Table (5): Correlation coefficient

Independent variables		Health Care Service Quality	Patients' Satisfaction
Dependent variable	Correlations coefficient	0.474	0.591
	Statistical significance	0.000	0.000

It will be seen from Table (5) that the correlation coefficients between "Impact of Waiting Time on Patients Satisfaction and Health Care Service Quality of Hospital patient Department ", (Health Care Service Quality, Patients' Satisfaction) on the domain (Patients' Waiting Time), ranged between (0.474-0.591), they're all positive, high, and statistically important values.

To answer the mean question, the multivariate analysis takes a look at was accustomed notice the result the impact of waiting time on patient satisfaction and also the quality of aid services within the hospital's patient department. Table (6) shows that.

Table (6): Multiple regression analysis to detect an effect affective image on characteristics of the participants' behavioral intentions.

Independent variables	Value T	Statistical significance "T"	Value Beta	Value R	Value R ²	Value F	Statistical significance F
Health Care Service Quality	3.530	0.001	0.264	0.607	0.368	42.888	0.000
Patients' Satisfaction	5.790	0.000	0.433				

Dependent variable: Patients' Waiting Time

The table shows that the value of F was (42.888), in statistically significant (0.000), and as the value of R was (0.607), representing the

correlation factor between the independent variable "Health Care Service Quality, Patients' Satisfaction" and the dependent variable "Patients' Waiting Time". The value of R^2 (0.368), representing the ratio of interpretation of differences in the dependent variable Patients' Waiting Time" resulting from the change in the factor of " Health Care Service Quality was (t), (3.530), and (0.001), "Patients' Satisfaction " was (t), (3.790), and (0.000).

This is confirmed by a study Abdullah (2005) conducted a study aimed toward distinguishing the various procedures applied to patient clinics, to look for potential issues which will result in AN excessive increase in waiting time, because the waiting time for the patient reflects the degree of satisfaction with the standard of the service provided, the study found 3 reasons that junction rectifier to AN excessive increase in waiting time: the length of the registration time, the poor range of staff within the reception service, and also the poor share of doctors. Plus, a study Jawahar (2007) additionally conducted a study aimed toward detection the amount of patient satisfaction and getting feedback for the services provided within the patient department, and also the study over that the waiting time is comparatively long for patients normally, however in some consulting clinics, the waiting time exceeds 3 hours, and also the treatment of the nursing workers isn't sensible and desires improvement.

1- View and discuss the results of the first sub-question: What are the levels of application of service quality dimensions in the hospital's outpatient department?

Descriptive statistics were carried out on the measurement scales of the study. Means, and standard deviation were used to describe the study tool. The following table show the levels of application of service quality dimensions in the hospital's outpatient department.

- First dimension: Accessibility

Table (7): Descriptive Analysis to Accessibility of service quality dimensions in the hospital's outpatient department

#	study tool	Mean	Standard deviation	Rank	Rate
1	The location of the outpatient clinics is convenient and easily accessible.	3.03	1.25	5	Medium
2	The design of outpatient departments makes it easier for patients to access services.	3.47	1.28	3	High
3	The clinics are equipped with the latest equipment and technologies that raise the quality of medical services.	3.57	1.28	1	High
4	The outpatient clinics have comfortable and suitable public facilities for patients (waiting rooms, toilets, cafeteria, parking...).	3.11	1.28	4	Medium
5	Doctors and nurses are available at all times in clinics and upon request	3.48	1.22	2	High
	The dimension as a whole	3.33	0.88	-	Medium

It was noticed from table (7) that the arithmetic averages for the paragraphs of the accessibility of service quality dimensions in the hospital's outpatient department, ranged between (3.03-3.57) and with a degree of (Medium and high). Paragraph 3, which states: "The clinics are equipped with the latest equipment and technologies that raise the quality of medical services.", ranked first in mean (3.57), with a standard deviation (1.28), and at a rate (High). Paragraph 5, which states that "Doctors and nurses are available at all times in clinics and upon request" Ranks second with a mean (3.48), a standard deviation (1.22), and a rate (High). In comparison, paragraph (1) states that "The location of the outpatient clinics is convenient and easily accessible." with a mean (3.03), a standard deviation (1.25), and a rate (Medium). Finally, the dimension means the scale as a whole (accessibility of service quality dimensions in the hospital's outpatient department) was (3.33) and standard deviation (0.88), and with a medium degree.

- Second dimension: Behavior, professional competence of medical staff

Table (8): Descriptive Analysis to Behavior, professional competence of medical staff of service quality dimensions in the hospital's outpatient department

#	study tool	Mean	Standard deviation	Rank	Rate
1	Health workers have the right words, attitudes and communication.	3.57	1.17	2	High
2	Patients are respected by medical staff, treated fairly and have a full care and help	3.29	1.23	3	Medium
3	There is an enough professional capacity of physicians and nurses to	3.73	1.16	1	High

	meet patients' needs and expectations.				
	The dimension as a whole	3.53	0.86		High

It was noticed from table (8) that the arithmetic averages for the paragraphs of the Behavior, professional competence of medical staff of service quality dimensions in the hospital's outpatient department, ranged between (3.29-3.73) and with a degree of (Medium and high). Paragraph 3, which states: "There is an enough professional capacity of physicians and nurses to meet patients' needs and expectations.", ranked first in mean (3.73), with a standard deviation (1.16), and at a rate (High). Paragraph 1, which states that "Health workers have the right words, attitudes and communication." Ranks second with a mean (3.57), a standard deviation (1.17), and a rate (High). In comparison, paragraph (2) states that "Patients are respected by medical staff, treated fairly and have a full care and help." with a mean (3.29), a standard deviation (1.23), and a rate (Medium). Finally, the dimension means the scale as a whole (Behavior, professional competence of medical staff of service quality dimensions in the hospital's outpatient department) was (3.53) and standard deviation (0.86), and with a medium degree.

- Third dimension: Transparency of information and procedures for medical examination and treatment

Table (9): Descriptive Analysis to Transparency of information and procedures for medical examination and treatment of service quality dimensions in the hospital's outpatient department

#	study tool	Mean	Standard deviation	Rank	Rate
1	The medical examination process is	3.79	1.16	1	High



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

	clearly, publically and easily understood.				
2	The process and procedures for medical examination are conducted simply and conveniently.	3.49	1.23	5	High
3	The medical staff welcomed and instructed the patients to do the affable and devoted procedures.	3.71	1.17	2	High
4	The service is performed according to the given dates.	3.69	1.23	3	High
5	All the necessary medical specialties are available in the clinics	3.68	1.22	4	High
The dimension as a whole		3.67	0.83	-	High

It was noticed from table (9) that the arithmetic averages for the paragraphs of the transparency of information and procedures for medical examination and treatment of service quality dimensions in the hospital's outpatient department, ranged between (3.49-3.79) and with a degree of (high). Paragraph 1, which states: "The medical examination process is clearly, publically and easily understood.", ranked first in mean (3.79), with a standard deviation (1.16), and at a rate (High). Paragraph 3, which states that "The medical staff welcomed and instructed the patients to do the affable and devoted procedures." Ranks second with a mean (3.71), a standard deviation (1.17), and a rate (High). In comparison, paragraph (2) states that "The process and procedures for medical examination are conducted simply and conveniently." with a mean (3.49), a standard deviation (1.23), and a rate (High). Finally, the dimension means the scale as a whole (transparency of information and procedures for medical examination and treatment of service quality dimensions in the hospital's outpatient department) was (3.67) and standard deviation (0.83), and with a medium degree.

- Fourth dimension: Responsiveness and assurance

Table (10): Descriptive Analysis to Responsiveness and assurance of service quality dimensions in the hospital's outpatient department

#	study tool	Mean	Standard deviation	Rank	Rate
1	The employees are polite and courteous	3.41	1.25	2	High
2	The staff is constantly following up on my medical condition	3.39	1.36	3	Medium
3	The staff prioritizes the patient's interests and needs over other tasks.	3.31	1.37	4	Medium
4	The medical team accomplishes its tasks on time and with high efficiency	3.07	1.29	6	Medium
5	I feel safe and confident when dealing with doctors	3.55	1.28	1	High
6	Doctors keep data and information about their patients confidential.	3.27	1.32	5	Medium
The dimension as a whole		3.33	0.89	-	Medium

It was noticed from table (10) that the arithmetic averages for the paragraphs of the responsiveness and assurance of service quality dimensions in the hospital's outpatient department, ranged between (3.07-3.55) and with a degree of (Medium and high). Paragraph 5, which states: "I feel safe and confident when dealing with doctors.", ranked first in mean (3.55), with a standard deviation (1.28), and at a rate (High). Paragraph 1, which states that "The employees are polite and courteous." Ranks second with a mean (3.41), a standard deviation (1.25), and a rate (High). In comparison, paragraph (4) states that "The medical team accomplishes its tasks on time and with high efficiency." with a mean (3.07), a standard deviation (1.29), and a rate (Medium). Finally, the dimension means the scale as a whole (responsiveness and assurance of service quality dimensions in the hospital's outpatient department) was (3.33) and standard deviation (0.89), and with a medium degree.

These findings will be explained that the standard of attention services is entitled to make sure the physical and mental state of the beneficiaries, and to supply a high-quality health service that achieves the satisfaction of the beneficiary (patient). activity their level of satisfaction with health services is a vital suggests that of body analysis, health-care designing and policy development to develop and improve channels of communication between health-service recipients and suppliers, enabling health organizations to perform their duties expeditiously and effectively. this is often confirmed by a study Javadi and G. (2011).

2- View and discuss the results of the second sub-question: What are the levels of patient satisfaction in the outpatient department of the hospital?

Descriptive statistics were carried out on the measurement scales of the study. Means, and standard deviation were used to describe the study tool. The following table shows the patient satisfaction in the outpatient department of the hospital.

Table (11): Descriptive Analysis to the patient satisfaction in the outpatient department of the hospital.

#	study tool	Mean	Standard deviation	Rank	Rate
1	The medical care I have been receiving is just about perfect.	3.47	1.29	4	High
2	I think my doctor's office has everything needed to provide complete medical care.	3.80	1.07	1	High
3	When I go for medical care, they are careful to check everything when	3.64	1.22	2	High



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

	treating and examining me.				
4	My doctors treat me in a very friendly and courteous manner.	3.63	1.18	3	High
5	I feel confident that I can get the medical care I need without being set back financially.	3.33	1.31	5	Medium
6	Doctors usually spend plenty of time with me.	3.15	1.40	7	Medium
7	I have easy access to the medical specialists I need.	3.22	1.41	6	Medium
	The dimension as a whole	3.46	0.94	-	High

It was noticed from table (11) that the arithmetic averages for the paragraphs of the patient satisfaction in the outpatient department of the hospital, ranged between (3.15-3.80) and with a degree of (Medium and high). Paragraph 2, which states: "I think my doctor's office has everything needed to provide complete medical care.", ranked first in mean (3.80), with a standard deviation (1.07), and at a rate (High). Paragraph 3, which states that "When I go for medical care, they are careful to check everything when treating and examining me." Ranks second with a mean (3.64), a standard deviation (1.22), and a rate (High). In comparison, paragraph (6) states that "Doctors usually spend plenty of time with me." with a mean (3.15), a standard deviation (1.40), and a rate (Medium). Finally, the dimension means the scale as a whole (patient satisfaction in the outpatient department of the hospital) was (3.46) and standard deviation (0.94), and with a high degree.

These findings are often explained that patient satisfaction affects improved clinical outcomes and patient retention, and reduces medical malpractice claims. Providing high-quality patient-focused health care services is vital. Thus, patient satisfaction, though the



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

broker may be a terribly effective indicator for activity the success of health outcomes and plays a key role in rising the standard of health services, thus activity patient satisfaction has become associate degree integral a part of hospital management ways for quality assurance and enfranchisement in most countries, and dealing on the most recent ways that to verify the standard of care is to live the patient's opinion as a user of services. Patient satisfaction assessment is a crucial analysis indicator as a result of it helps to grasp their expectations as a shopper and to spot the wants and expectations of the health system. And this is often confirmed by the study of each (Prakash, 2010), (Ambelie, 2014), and (Pini et al., 2014).

3- View and discuss the results of the third sub-question: What are the main reasons leading to the long waiting period in the hospital's outpatient department?

Descriptive statistics were carried out on the measurement scales of the study. Means, and standard deviation were used to describe the study tool. The following table shows the main reasons leading to the long waiting period in the hospital's outpatient department.

Table (12): Descriptive Analysis to the main reasons leading to the long waiting period in the hospital's outpatient department.

#	study tool	Mean	Standard deviation	Rank	Rate
1	I find it hard to get an appointment for medical care right away.	3.45	1.31	4	High
2	I am not able to get medical care whenever I need it.	3.68	1.17	2	High
3	Where I get medical care, people have to wait too long for medical treatment.	3.65	1.20	3	High



www.mecsjs.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

4	The time taken between patient arrival, registration and first contact with the nursing staff is very long.	3.72	1.21	1	High
5	The time spent between patients and the physician is very long, which makes patients wait more.	3.37	1.29	5	Medium
6	I often wait to enter the clinic, but I cannot do so because of the end of working hours, which requires me to go and return the next day.	3.30	1.33	7	Medium
7	I spend most of our time in records and appointment offices.	3.31	1.36	6	Medium
The dimension as a whole		3.50	0.95	-	High

It was noticed from table (12) that the arithmetic averages for the paragraphs of the main reasons leading to the long waiting period in the hospital's outpatient department, ranged between (3.30-3.72) and with a degree of (Medium and high). Paragraph 4, which states: "The time taken between patient arrival, registration and first contact with the nursing staff is very long.", ranked first in mean (3.72), with a standard deviation (1.21), and at a rate (High). Paragraph 2, which states that "I am not able to get medical care whenever I need it." Ranks second with a mean (3.68), a standard deviation (1.17), and a rate (High). In comparison, paragraph (6) states that "I often wait to enter the clinic, but I cannot do so because of the end of working hours, which requires me to go and return the next day." with a mean (3.30), a standard deviation (1.33), and a rate (Medium). Finally, the dimension means the scale as a whole (the main reasons leading to the long waiting period in the hospital's outpatient department) was (3.50) and standard deviation (0.95), and with a high degree.

These findings are often explained that the most reasons resulting in the long waiting amount within the hospital's patient department are the character of the health services provided, as they vary from patient to patient reckoning on the medical condition (There is thus no pattern within the delivery of health services), a severe shortage of physicians to fulfill the growing demand for these services, likewise as obvious issues with the registration system and its dates, and therefore the emergence of intentional and unintentional violations. And this can be confirmed by the study of each (Press Releases, 2001) and (Release Press, 2001).

4- View and discuss the results of the fourth sub-question: What are the solutions to reduce the length of waiting time in the hospital's outpatient department?

Descriptive statistics were carried out on the measurement scales of the study. Means, and standard deviation were used to describe the study tool. The following table shows the solutions to Reduce the Length of Waiting Time in the Hospital's Outpatient Department.

Table (13): Descriptive Analysis to solutions to Reduce the Length of Waiting Time in the Hospital's Outpatient Department.

#	study tool	Mean	Standard deviation	Rank	Rate
1	Increase staff per shift.	3.65	1.24	4	High
2	Improve staff availability at their status.	3.80	1.22	2	High
3	Introduce electronic appointment systems.	3.82	1.20	1	High
4	Increase the number of physicians and service points.	3.65	1.22	3	High
5	Employing electronic medical records	3.59	1.35	5	High



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

	and other IT innovations.				
6	Strengthening the time management and communication skills of the medical staff through training.	3.55	1.27	6	High
7	Increasing the level of cooperation between departments.	3.48	1.29	7	High
The dimension as a whole		3.45	0.82	-	High

It was noticed from table (13) that the arithmetic averages for the paragraphs of Solutions to Reduce the Length of Waiting Time in the Hospital's Outpatient Department, ranged between (3.48-3.82) and with a degree of (high). Paragraph 3, which states: "Introduce electronic appointment systems.", ranked first in mean (3.82), with a standard deviation (1.20), and at a rate (High). Paragraph 2, which states that "Improve staff availability at their status." Ranks second with a mean (3.80), a standard deviation (1.22), and a rate (High). In comparison, paragraph (7) states that "Increasing the level of cooperation between departments." with a mean (3.48), a standard deviation (1.29), and a rate (high). Finally, the dimension means the scale as a whole (the solutions to Reduce the Length of Waiting Time in the Hospital's Outpatient Department) was (3.65) and standard deviation (0.82), and with a high degree.

Conclusions:

This analysis aimed to analyze the impact of waiting time on patient satisfaction and therefore the quality of aid service within the hospital's patient department. The findings confirmed that patients united on the

degree of application of quality-of-service dimensions within the hospital's patient department to moderate to high degrees. the findings conjointly also confirmed patients united on patient satisfaction levels within the hospital's patient department with moderate to high scores.

The results confirmed that patients united on the most causes resulting in the long waiting amount within the hospital's patient department with moderate to high grades. The findings conjointly confirmed patients united solutions to scale back waiting time within the hospital's patient department to high grades. Finally, the results of the study indicated a statistically vital impact of waiting time on patient satisfaction and therefore the quality of health care services within the patient section of the hospital.

Based on the findings of the study, it remains to propose a number of practical recommendations inspired by the findings, namely:

- 1- The need for hospital management to pay attention to the physical environment of the health service through attention to hygiene, attractiveness and accessibility.
- 2- The need for hospital management to be given the timeliness of service delivery and to increase mutual trust.
- 3- The need to train and qualify hospital staff on mechanisms to understand the needs of patients and to meet them quickly and with extreme accuracy.



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

- 4- The need to strengthen the management of hospitals to deal effectively with all patient requirements and to ensure that they are met efficiently, effectively and openly.



Reference

- Abdullah, M H.(2005) Study on Outpatients Waiting Time in Hospital University Kebang saan Malaysia(HUKM)through the six sigma Approach ,Journal of quality improvement.
- Abiyot Wolie, Woldeamilak Adamu Hunegnaw, Addisu Gashinet Ferede & Habtamu Temesgen Deneke (2020) Assessment of patient satisfaction and associated factors in an outpatient department at Dangila primary hospital, Awi zone, Northwest Ethiopia, 2018, Global Security: Health, Science and Policy, 5:1, 57-64, DOI: 10.1080/23779497.2020.1813048
- Al-Gharibeh., & Al-Qudah. (2012). Waiting period for outpatient auditors at King Abdullah University Hospital - Jordan "An exploratory field study".
- Al-Harajin, R. A.-S. (2019). The association between waiting time and patient satisfaction in outpatient clinics: findings from a tertiary care hospital in Saudi Arabia. . J Family Community Med. ;26:17–22.
- Ambelie, Y.A. (2014). Patients' satisfaction and associated factors among private wing patients at Bahirdar Felege Hiwot Referral Hospital, North West Ethiopia. Science Journal of Public Health , 2(5), 417–423.



Anderson RT, Camacho FT, Balkrishnan R (2007). Willing to wait?: The influence of patient wait time on satisfaction with primary care. BMC Health Serv Res;7:31.

Asadi-Lari M, Tamburini M, Gray D, (2004), “Patients’ needs, satisfaction, and health related quality of life: towards a comprehensive model”, Health and Quality of Life Outcomes, Vol.2:32.

Bahrampour and F. Zolala (2005). Patient satisfaction and related factors in Kerman hospitals. Eastern Mediterranean Health Journal. 11(5/6) , p 905-912

Bar-Dayana, Y, Leiba, A, Weiss, Y, Carroll, JS, Benedek, P (2002). Waiting time is a major predictor of patient satisfaction in a primary military clinic. Mil Med. ;167(10):842-845.

Bleustein, C, Rothschild, DB, Valen, A, Valatis, E, Schweitzer, L, Jones, R (2014). Wait times, patient satisfaction scores, and the perception of care. Am J Manag Care. ;20(5):393-400.

Bleustein, C. R. (2014). Wait times, patient satisfaction scores, and the perception of care. Am. J Manag Care. 2014;20(5):393–400.

Boudreaux, E., & O’Hea, E. (2004). Patient satisfaction in the emergency department: a review of the literature and implications for practice. J Emerg Med. ;26(1):13-26.



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

- Cao, W. W. (2011). A web-based appointment system to reduce waiting for outpatients: a retrospective study. *BMC Health Serv Res.* 2011;11:318. <http://www.biomedcentral.com/1472-6963/11/318>. Accessed 16 May 2017.
- Chen, M. L. (2015). The relation between outpatient anxiety and waiting time for consultation. *Chi J Behav Med Sci.* ;14(9):852–3.
- Crow, R., Storey, L., and Page, H., (2003), “The measurement of patient satisfaction: Implications for health service delivery through a systematic review of the conceptual, methodological and empirical literature”, *Health Technology Assessment*, 6(32).
- Desai, V. (2011). “Patient Satisfaction and Service Quality Dimensions. *Advances in Management Journal*”.4 (5): 40-45.
- Farley H, Enguidanos ER, Coletti CM, Honigman L, Mazzeo A, Pinson TB, et al(2014). Patient satisfaction surveys and quality of care: An information paper. *Ann Emerg Med*;64:351-7.
- Godley, M., & Jenkins, J. (2019). Decreasing wait times and increasing patient satisfaction: a lean six sigma approach. *J Nurs Care Qual.* ;34:61–5.
- Javadi, M. and G. 2011. “Service Quality Evaluation in General Department of Health Insurance of Fars Province Using a SERVQUAL Model”. *Interdisciplinary Journal of Contemporary Research in Business*.3(4): 118-125.



Jawaher, sk (2007). a study on out patient satisfaction at a super specialty hospital in india, internet journal of medical update 2007.july – dec.;2(2):13-7

Keegan, O., McDarby, V, Tansey, A., and McGee, H., (2003), “Community involvement in A/E satisfaction survey“, [Submitted for publication].

Lutz, B & Bowers, B., (2000), “Patient-Centered Care: Understanding Its Interpretation and Implementation in Health Care”, Scholarly inquiry for nursing practice, Vol.14, No.2: 165.

Med F, Sci M, Alnemer KA, Al-homood IA, Alnemer AA, Alshaikh OM, et al. (2015). A multicenter study of factors affecting patient’s satisfaction visiting primary health care clinics in Riyadh, Saudi Arabia. Fam Med Med Sci Res;4:2-5.

Melese, T. , Gebrehiwot, Y. , Bisetegn, D. , & Habte, D. (2014). Assessment of client satisfaction in labor and delivery services at a maternity referral hospital in Ethiopia. Pan African Medical Journal , 17, 76

Merkouris, A. , Andreadou, A. , Athini, E. , Hatzimbalasi, M. , Rovithis, M. , & Papastavrou, E. (2013). Assessment of patient satisfaction in public hospitals in Cyprus: A descriptive study. Health Science Journal , 7(1), 28–40.



Mohsin, M, Forero, R, Ieraci, S, Bauman, AE, Young, L, Santiano, N (2007). A population follow-up study of patients who left an emergency department without being seen by a medical officer. *Emerg Med J.* ;24(3):175-179.

Narinder, K. , & Saini, S.S. (2013). Comparative assessment of satisfaction among outpatient department patients visiting secondary and tertiary level government hospitals of a district in Delhi. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine* , 38(2), 114–117.

Ndukwe, H., Tayo, F., & Sariem, C., (2011). Factors Influencing Waiting Time in Outpatient Pharmacy of Lagos University Teaching Hospital. (October):

Pini, A. , Sarafis, P. , Malliarou, M. , Tsounis, A. , Igoumenidis, M. , Bamidis, P. , & Niakas, D. (2014, June 12). Assessment of patient satisfaction of the quality of health care provided by outpatient services of an oncology hospital. *Global Journal of Health Science* , 6(5), 196–203.

Prakash, B. (2010). Patient Satisfaction. *Journal of Cutaneous and Aesthetic Surgery* , 3(3), 151–155.

Press Releases. (2001). ,Waiting Times in specialist Out patient clinics of Restructured Hospital and specitality Cenetres,20 Mar .



- Preyde, M. C. (2012). Patients' satisfaction and wait times at Guelph General Hospital Emergency Department before and after implementation of a process improvement project. CJEM. ;14(3):157–68.
- Service HC, Al-khafee S, Aziz HA-A (2006). Patient Satisfaction of Primary health care service. King Abdul Aziz Univ Fac Med Allied Sci Nurs Dep;1:28.
- Sharma, S., & Chowhan, S. (2013). Patient Waiting Time: It's Impact on Hospital Outpatient Department. Volume.Issue : 3.
- Sharma, S.K.; Chowhan, S.S (2013) Patient Waiting Time: It's Impact on Hospital Outpatient Department. Volume.Issue : 3.
- Silva, A. A. (2010). Framework for measuring responsiveness. GPE Discussion Paper Series: No. 32. EIP/GPE/EBD. Geneva: World Health Organization.
- Su, H., Wan, G., & Wang, S. (2019). Online scheduling for outpatient services with heterogeneous patients and physicians. J Comb Optim. ;37:123–49.
- Sun, J. L. (2017). Reducing waiting time and raising outpatient satisfaction in a Chinese public tertiary general hospital-an interrupted time series study. BMC Public Health. ;17:668.
- Susanto AN, Chalidyanto D (2020) Waiting time and satisfaction of outpatient in the pharmacy section. Eurasia J Biosci 14: 3263-3266.



www.mecsj.com

Multi-Knowledge Electronic Comprehensive Journal For
Education And Science Publications (MECSJ)

Issues (61) 2022

ISSN: 2616-9185

Vashi, A. S. (2019). Applying lean principles to reduce wait times in a VA emergency department. *Mil Med.* ;184:169–78.

Wandebori, H., (2017). Patient Overall Satisfaction derived from the Service Quality and Sources of Expectation in the Health Service Company. *Jurnal Manajemen Teori dan Terapan | Journal of Theory and Applied Management* 10(2): 93.
<https://doi.org/10.20473/jmtt.v10i2.3550>

Wei-Min Ma, Hui Zhang & Neng-Li Wang (2019). Improving outpatient satisfaction by extending expected waiting time *BMC Health Services Research* volume 19, Article number: 565

Xian Evening News. (2013). Long waiting time for consultation. (Page 8 of 21 November 2013). http://epaper.xiancn.com/xawb/html/2013-11/21/content_255587.htm. Assessed 16 May 2017

Zhenzhen, Xie , Calvin (2017). Associations Between Waiting Times, Service Times, and Patient Satisfaction in an Endocrinology Outpatient Department: A Time Study and Questionnaire Survey.