

# FACTORS ASSOCIATED PATIENT WAITING TIME AT OUTPATIENT DEPARTMENT IN ALLIED HOSPITAL FAISALABAD

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**Abstract:** Extreme long waiting time in outpatient department in the Constant challenge for patients and the health providers of these services. Waiting long time are related with poor outcome to treatment, lost appointment and failure or delay in start of basic treatment. The time a patient spends at every service point before being examine by a health supplier and the overall total time a patient spends in a health facility from the arrival time to the departure time is a main cause towards the perception of the patient towards the care received. **Objective:** To define waiting time and related factors among patients who attend outpatient department of the Allied Hospital Faisalabad. **Methodology:** Cross-sectional study was done, data collection was Conducted on 354 outpatient over a period of four weeks by an interview and pre planed questionnaire used to select patients in outpatient department .To analyses all data the data was cleaned then planned questionnaire with the time-tracking piece. The method that was used Simple random sampling after this ,The data was entered in the Statistical Package for Social Sciences (SPSS) 20 .**Results:** In total 354 patients were traced an interviewed 55.4 minutes usual time was noted .Many of the patients waited in the outpatient department for 65 minutes to obtain the facilities they had need. In the doctor office lengthiest waiting time was recorded which was 13.2 minutes Mostly patient came at the outpatient department to received services new consultations and follow up review. 68 % person gave response that they felt the time they had spent at outpatient department was acceptable. While, many of the patients at outpatient department 62.7% advised that waiting time can be reduced by improving availability of workers at their working points. Department and the mean waiting time at the outpatient department is the first stair to reducing waiting time .There is a need to change internal practices and then implement at the outpatient department. About one hour and 5 minutes many of patients spent time at the facility to be given. Maximum patients felt the total time spent in the facility is acceptable but recommended that improving availability of health workers at their stations will reduce the Distinguishing the areas that cause to delay in meet health care services at the outpatient waiting time of the patient and hence improve the provision of services.

**Keywords:** outpatient department, patient, treatment, health facility.

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## 1. INTRODUCTION

Patients' waiting time has been well-defined as "the span of time from when the patient arrived the outpatient department and the time the patient actually leaves the OPD". Whether patients receive long waiting time at registration, doctor's appointment, emergency room Treatment, laboratory/diagnostic test, procedures, receiving the results of various tests, waiting occurs to just about everyone looking for medical care. It's often one of the most unsatisfying parts about Healthcare delivery system. Outpatient department is a important indicator which deliver all health care services to the

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patients which they requisite to advancement of health and prevention from diseases. Late meet health care services have adverse effect on health outcomes because of delays in diagnosis and treatment (Kengy et al., 1999). The current highlighting in improve the excellence of outpatient services in public necessary detail to understanding how outpatient department of hospital is working and representing the health facilities requires a process of care is a important step toward this goal (Barach & Johnson,2006). The institute of medicine suggested that, about 90 percent patients should be examine within 30 minutes of their schedule appointment (O, mellay et all., 1983).Several studies have completed on rising countries have shown that patients pass 2 to 4 hours in outpatient department before the doctor examine .The period of waiting time different from country to country and different from center to center. Both developed and developing countries long waiting time have been informed The average waiting time in USA is about 60 minutes was found in Atlanta,and average 188 minutes in Michigan. Long waiting time in outpatient department adversely affect delivery of services and experience of clinic by the patients (Oche & Adamu 2013). Long waiting time in outpatient department is prevailing all in developed and developing countries such factors are over burden of patients, deficiency of hospital staff, inadequate equipment, long registration processes and inadequate human assets are main cause of long waiting time (Maluwa et al. 2012).The result of Long waiting time lead to patient disappointment and poor effect on the patient health. Long waiting time create a anxiety both for the patients and the doctors .some time lead to poor consequences .There is need to directed the studies to identify the issues that cause long waiting time in outpatients department , and find out strategies to reduced them .

### Purpose of the Study:

The purpose of the study to identify the factors that cause long waiting time in outpatient department, and find steps to reduced waiting time.

### Research Questions:

1. Which type of facility required and how it affect patient waiting time at outpatient department of Allied Hospital FSD?
2. What is the arrival time of the patient's effects waiting time at the Allied Hospital Faisalabad?
3. What is the availability of healthcare workers at their working point influence patient waiting time at the Allied Hospital Faisalabad?

### Aims of the study:

There were some purposes of this study.

### Broad objective:

To find out the problems that cause long waiting time at outpatient department of Allied Hospital Faisalabad.

### Specific objectives:

1. To found which the type of facilities required you, and how it effect a waiting time of the patients at allied hospital FSD?
2. Observe how accessibility of healthcare workers at their working points affect patient waiting time eat the outpatient department at Allied Hospital FSD.
- 3 Assess what is patient arrival time at outpatient department affects waiting time?

### Significance of the study

- Outpatient department provides diagnoses and treatment of the patients.
- In outpatient department patients do not need night stay.
- The outpatient department is an important part of the overall Hospital.
- Outpatient department provides preventive, curative, promote and rehabilitative services to the patients.

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- To provide preventive promoted health care services through provision of screening, immunization, antenatal and counseling about family planning to the people.
- Outpatient services is usually cost less, because you don't need to stay overnight.
- To provide after care and medical rehabilitation when necessary, after discharge from the hospital.
- Waiting time is a major issue for the patients in outpatients department.
- Timely meet health care services in outpatient department to the ill patients are very important.
- Meet early appointment in outpatient department promote health and decrease progression of disease.
- Early diagnosis of the diseases has better outcome, While delay in meet health services lead to more complication even cause to death.
- Immediate meet health care services improve satisfaction of the patients and physician.
- While waiting time cause emotional stress and physical harm for the patients.
- Timely provision of health care services to the patients can help reduce mortality and morbidity of chronic diseases.
- Early checkup in outpatient department reduce hospitalization rates.

**2. LITERATURE REVIEW**

Many literatures are available which report the issues of waiting time in outpatient department. I initiate too much researches on this topic in the field some of them are given below. There is no national study done on this topic .There are many searches done patient waiting time in large hospital's outpatient department. In many developing countries searches have been done. (Whyte & Goodacre, 2015) In developing countries number of good literary work has also done like ngeria and Uganda (Wanyenze et al. 2010; Musinguzi 2015; Oche & Adamu 2013).From the finding of the study there are many factos identified which effect on patient waiting time. . Some of these factors are overcrowding of patients, few health care provider, inadequate health care facilities . (Chen & Li 2010; Maluwa et al.. due to long waiting time many patients are effected.(Pillay et al. 2011; Zhu et al.2012).

Wafula (2016) stated that long waiting time in outpatient department in Africa is a still issue for the health care suppliers and patients. Long waiting time cause delay in treatment and sometime missed appointment .long Waiting time in outpatient department adversely effect on the perception of the delivery of services and clinic experience by the patients .The study was done at the university of Nairobi health services senior staff nurses. In this study 384 patients were agreed. Result: The average time noted during four weeks was 55.3 min .the longest waiting time was found at the doctor clinic was 13.1 min. In this study gender (p=0.005) and of availability of doctor (p0.000) factors found in patient waiting time.

Oche & Adamu , (2013) research on "factors effecting on patient waiting time in outpatient department of tertiary health institution in north western Nigeria. Background: Different amount of patients wait in outpatient department where seen one factor which affects use of healthcare services. Patients take long waiting times to receive health care services which cause anxiety both for doctors and patients. Design: A descriptive study was directed the patients who came outpatient department to receive health care services from the Danfodiyo university Teaching Hospital Sokoto, North Western Nigeria. Structured questionair and waiting assessment card given the patients to obtain the evidence regarding the waiting time ,spent time before registration ,spent time in waiting area and spent time with the doctors ,in this study only new patients were nominated. About 100 patients were consenting in the study by systematic sampling method .Four patients out from the study because they give answer rate of 96 percent. Results: patients responded according to the ages N=96 ,15 to 70 years, with the age of mean 33(13) years. Female respondents about 62.5% and male respondents 37.5% ,28.1% were students, and 12.6 % were public servants. sixty one percent respondents waited among 90 and 180 min in opd from entry to exit ,36.5 percent (35/96) patients waited more than 180 min,74%fei waited 60 to 120 min and 10.3% waited about more than 120 min ,out of 96 patients responded ,76(79%) felt they consumed too much long time in waiting ,44.7 percent response there are few numbers of doctors assembly large number of patients 36 percent response

a few numbers of clerk. and jumping of line by patients or staff members (8% ) In terms of employees attending to patients in the clinic, there were only 2 nurses 4 doctors, , and 2 record clerks who examine to 148 patients on each day , whereas on the 2<sup>nd</sup> day, the number of patients who were examine sa the treatment center was even higher (162). Only 2 record clerck and 4 doctors examine to about 150 patients on each day. The three most common causes to long waiting time note in this study were great patient load, limited doctors, and record keeper essential characteristics such as age, education, and rank of the occupation have not any outcome on the waiting time. Conclusion: The result copmleted from the study showed that more than half of patients wait more than one hour .This long waiting time due to high patients load ,limited doctors and nurses. There is a need to constructed more outpatients departments and upgrade numbers of workers, this measure decreased waiting time. In such way every patients can rewarded easily health care services. Decreasing waiting time increase level of patients satisfaction .The health care providers indicate such methods by which waiting time can be decreased such as uses of computer stimulus to support to give appointment time to the patient.

Hasanpoor et al., (2014) .Department of Health services management, Qazvin University of medical sciences, school of health sciences, Qazvin Iran. Present research on outpatient waiting time and its factors. Background: one of the most indicator is quality of health care services and patient satisfaction, that is possible when there is a process based on management And suitable handled waiting time process. The purpose of this study is the analyzing the waiting time of patients in outpatient department .Objectives: to found the the reasons that cause long waiting time in outpatient department . Methodology : the descriptive study was applied in the hospitals one of the medical university in the North west Iran .The study was directed by interview by each patients .About160 Patients were agreed from the outpatient department and in this study the patients were distributed in four different clinics 1 ophthalmology 2: urology 3: orthopedics 4: Dermatology number of patients were distributing equally two weeks to ensure the exactness of the data . The waiting time was noted on the basis of minutes and seconds in presence of researcher by chronometer.

Results: out of total 160 patients 47% female and 53% were sample. The result of the study waiting time for the outpatient department of ophthalmology clinic wait 245 min .Orthopedic clinic take less waiting time about 77 min each patient .the dermatology clinic take time about 86 minutes, Duration of urology clinic is less as matched to other three clinics about 70 percent. during this study I notice total average patient waiting time for per patient is 161 minutes . There are some factors which cause patients waiting time in outpatient department ,1 Registration procedure 2 Shortage of medical doctor 3 Shortage of skilled staff 4 Types of models to decrease the outpatient waiting time 5 Electric appointment system 6 queening Theory 7 Process model e.g. FIFO Model who come ,first and go first . Conclusion : Waiting time in outpatient department that is noted about 161 minutes can be reduced by assumed process models.

### 3. METHODOLOGY

In this chapter discuss the method and procedures how it was used to achieve the purpose of the study.

#### Study Design:

This study design is a cross- sectional and the nature of the study is descriptive at the outpatients in the Allied Hospital Faisalabad.

#### Study Area:

The study was conducted at the outpatient department in Allied Hospital Faisalabad. Situated at Jail Road Akbar Abad chock Faisalabad. The reason was choosing study in Allied Hospital because it was the big and recommendation hospital in Faisalabad .Which provide all preventive and curative services to the patients and 24 hours it operates on daily basis. About 3,000 patients seeks various services from different department daily. This department all types of service e.g new consultation, General, Referral .Specialize. It has a team of health providers involving in consultant physicians, nurses, pharmacists and records officer's Medical officers. The Population of the Allied Hospital outpatient department is more than 3,000.Mostly patients came seen in outpatient department. Some patients come without appointments with little patients admitted for minor procedures and observation .According to UHS regulation all patients whose need referral services sent to the main hospital for further management.

**International Journal of Novel Research in Healthcare and Nursing**

Vol. 4, Issue 2, pp: (176-184), Month: May - August 2017, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

**Study population:**

The study population included all patients looking for outpatient care services at the Allied Hospital outpatient department. The period of the study is 4 weeks.

**Inclusion Criteria:**

Some patients beyond 18 years of age, and those who less than 18 years who were accompanied by adult (above 18 years) caregivers were given permission to participate in the study after they agreed to take part in the study.

**Exclusion criteria:**

The patients who did not give consent were excluded from the study and those under 18 years who were not escorted by an adult caregiver were not included in the study. All patients who had been interviewed earlier during the study were not included. Sample size calculation and sampling method

**Sample Size:**

There were no earlier studies done on this topic of patient waiting time in the outpatient department. The amount of patients who take a long waiting time than the suggested time to receive services is unknown. So, the study was done on 50% of the patients who came to the outpatient department seeking for health care services. The following formula for calculation of sample size is used.

**Sampling procedure:**

Simple sampling method was used to choose the participants from all patients who attended the outpatient department. According to the records officer, about 3,000 patients were registered every day. The data was collected in seven days with two trained assistants. We required a daily sample size of 50 respondents. To select a sample of 50 patients each day, we gave a following number from one to one hundred (1-100) next to each patient that goes to the outpatient departments using random numbers from the arbitrary tables. Fifty (50) arbitrary numbers with auxiliary when essential participants were nominated. All selected patients requested for a written form of consent after a description of what the research required. Then we interviewed the respondent using a planned questionnaire. The randomization technique was very effective because patients visit the facility at altered times, without given appointments and therefore it was possible to attain the sample size required. Random sampling also decreases errors and reduces the effect of confounders. Randomized technique is less time-consuming.

**Study variables:**

In this study, demographic data like age and sex are independent variables while waiting time is a dependent variable. The other independent factors were availability of staff at work stations, patient entrance time, and different types of services required by the patients.

**Data collection tool:**

The data was collected through pre-planned questionnaires and interviewing by the patients. Socio-demographic data, services required by the patients, availability of workers at their working points, and gathering information through questionnaires while arrival time and waiting time were calculated with a time track tool e.g. watch.

**Data collection procedure:****Quality assurance/control procedures:**

Allow the participant to sign the informed consent which they selected for this study. After this, all information had been clarified to them. Internal validity of the participant was ensured through random selection. External validity of the participant was confirmed by the planned questionnaire. Giving a planned questionnaire ensured consistency of the questions and answers to all contributors. To reduce the viewer's unfairness or change of behavior by health workers and patients, the patients were kept away from the research assistant.

**International Journal of Novel Research in Healthcare and Nursing**

Vol. 4, Issue 2, pp: (176-184), Month: May - August 2017, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

**Data management and examination:**

At the end filled questionnaires were tested every day by the researcher to ensure completeness and precision. The data was stored safely and handled by me only. Data was entered into the Statistical Package for Social Sciences (SPSS) software cleaned, proved and analyzed. The descriptive data like socio-demographic data (age category, sex, and the patient characteristics patient arrival time, type of service required by patient namely, categorical data was short in frequencies, percentages . The data was presented in tables, charts and graphs.

**Ethical Consideration:**

All the participant in this study was voluntary, no pressure was used and all participants were assured that there was effects on patient’s personal life and this will not harm you. Willing participants signed an informed consent form expressing their enthusiasm to participate in the study. Patients privacy was certain by coding all questionnaires uniquely by using numbers and the names were not recorded Privacy of information given by clients was endorsed.

**Dissemination of study results Plan:**

The results of the study were presented as a thesis to the independent college of nursing summarized copy of the report will be presented to additional medical superintendent of outpatient department of the allied hospital.

**Study limitations:**

The first was that the laboratory as a service point was not included in the study because of it was located outside the main clinic and this might misrepresent the study of time. Secondly, the data collected by interview depended on the patients self-reports thus could be inaccurate if the participants were not honest. In addition, all the health workers in the clinic were aware of the data collection going on and may have changed their behavior but this was managed by directing the study for four weeks. In addition, the collection of data on the number of doctors at the work stations was a big issue due to the irregular arrival and departure of doctors from their working points. In addition this study used one method of data collection which could have partial the amount and type of data that can be gather.

**Study closure plan and procedure:**

When the data was collected I thank to to AMS and management of allied hospital FSD .And then closed the study and data collection process then informed to the hospital management that the data was completed gather .Now I want to closed the study and informed them that the data collection on patients was complete and there will be no more contact with patients for purposes of collecting data on this study.

**4. RESULTS**

In this chapter the results covered the followings respondents’ socio-demographics data patient waiting time, types of service required by patients, accessibility of health workers at their places, patient arrival time and acceptability of total time spent.

**4.1 Social Demographic Characteristics:**

This information cover the age category gender showed in table 2 below.

**Table 1: Mean Waiting Time**

	Age Group	How much did you have known waiting time in outpatient department?
<b>Average</b>	<b>3.53</b>	<b>7560</b>
<b>Std. Deviation</b>	<b>1.159</b>	<b>17.053</b>

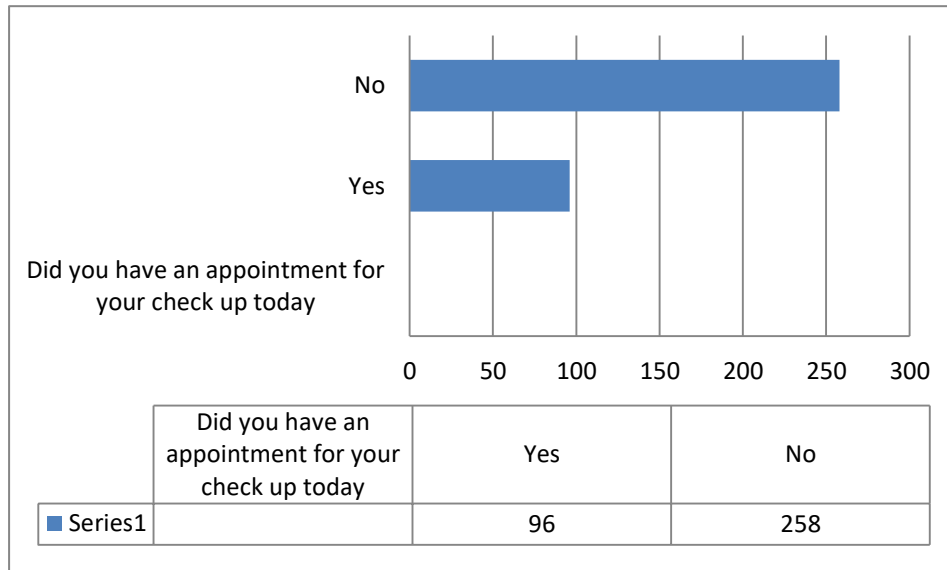
**Table 2: Gender wise Classification**

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	150	42.37	42.37	42.37
Female	204	57.63	57.63	100.0
Total	354	100.0	100.0	

**Table 3: Did you have an appointment for your check up today?**

Did you have an appointment for your check up today?

Opinion	Frequency	Percent
Yes	96	27.12
No	258	72.88
Total	354	100.0



If NO in Q2, what is your opinion given an appointment it would help in reducing the waiting time?

**Table 4: Which type of services you need today?**

Opinion	Frequency	Percent
New Consultation	183	51.7
Follow-up/Review	62	17.5
Lab result review	48	13.6
Specialized Consultation	61	17.2
Total	354	100.0

The result showed that majority of the patients visit the outpatient department for new consultation (51.7 %). (17.5%) patients came at the facility follow up review. (17.2%) came to received specialized consultation .While (13.6%) patients came for lab result view.

**Table 5: Do you think staff in this OPD are available when you required them for your problem**

Opinion	Frequency	Percent
Yes	255	72.0
No	57	16.0
Not sure	42	12.0
Total	354	100.0

More than ( 72.0%) workers were present at their working station .Only (16.0% )patients responded there were no workers found at their station .Meanwhile ,(12%) respondents not sure about workers .( 86.2%) respondents non availability of health care workrs effect have to long waiting time and (1.4%) patients told that non availability of health care workers at their station did not know whether it effected or not .

## 5. DISCUSSION

In this study there is a need to be measure the patient waiting time and detect associated factors that cause long waiting time at various service point and application of queuing theory. UHS like many health facilities consumes the single channel and numerous Phases There is a important to application of this theory to help in forecasting how long a patient should takings to achieve a particular service and this can be used to plan facility specific patient managing strategies. This is where all patient register at one records office for file repossession then move to registration station for vital signs observation, then they are sent to different consultation rooms. This study, required to answer three questions; which type of services required by the patients that effect the patient waiting time. What is the patient arrival time how it effect the waiting time? And how does the availability of health care workers at their points.

## 6. CONCLUSION AND RECOMMENDATIONS

The result draw from this study which showed that patients waited about one hour and five minutes to achieved the services which they need in outpatient department. According to patients perception that they spent a time in outpatient department is acceptable. Majority of the patients told that they have no complaint regarding services they received .The also felt they should recommended this outpatient department to their family and friends and they are satisfied with these services .Many patients suggested that improving health care workers at their working points because non availability of doctors at their station influence long waiting time. This was the first study which was done at the Allied hospital Faisalabad therefore, there is a need to require the study on patients waiting time in such areas. Help decrease patient waiting time. This might be the one of the first study which is done at outpatient department and therefore further studies are required in this area that will comprise healthcare workers and other qualitative data collection methods.

### Recommendation:

The findings of this study showed that many patients came at the outpatient department to received follow up services and new consultation. To provide timely health care services to the patients ,Therefore is requirement for UHS management to report the regions of delay acknowledged to empower patients to get timely services. Majoroty of the patients came at the outpatient department early morning so, the administration of the hospital assured the availability of doctors at their station and promote the process in all health care workers particularly doctors should came on time in outpatient department .So ,more avoid to more delay.All heath care workers should be present at their station this will improve the patients satisfaction and reduced their stress . Finally improve the workers and reduced the shortage of workers .This will decreased the patients waiting time and improve satisfaction . It is responsibility of the UHS management to provide the awareness to the patients who wait long time and provision of new practices to the health workers and help them to reducing waiting time and rcognized the areas that cause delays at the outpatient department Create the communication among doctors so, further patients could not more delay.

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**International Journal of Novel Research in Healthcare and Nursing**

Vol. 4, Issue 2, pp: (176-184), Month: May - August 2017, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

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