REDUCING OUTPATIENT WAITING TIME FROM PATIENT REGISTRATION UNTIL TO SEE PHYSICIAN IN TEKLEHAIMANOT GENERALHOSPITAL

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Declaration

1. This thesis is my original work, and all those sources of material all are used for the thesis has been duly acknowledged.

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Contents

LIST OF TABLE

LIST OF APPENDICES

ABBREVIATIONS

RHB	**Regional health Bureau**
ALOS	**Average length of stay**
BOR	**Bed occupancy rate**
CEO	**Chief Executive Officer**
EPOPD	**Emergency pediatrics outpatient department**
FMOH	**Federal Ministry of Health**
IPD	**Inpatient department**
KPI	**key performance indicator**
MCH	**Maternal & child health**
OPD	**Outpatient department**
SMT	**Senior management team**
TGH	**Teklehaimanot General primary hospital**

ABSTRACT

PROBLEM STATEMENT: In Teklehaimanot general hospital long waiting time of registration to see a physician is one of the most problems.

OBJECTIVE: The overall objective of the project is to reducing outpatient waiting time and increase customer satisfaction in Teklehaimanot general hospital Addis Ababa, Ethiopia by the end of June, 2019.

METHOD: Pre post intervention was conducted in Teklehaimanot general Hospital from March 2019 to June 2019.

RESULT: Patient waiting time and customer satisfaction improved based on pre and post intervention comparisons the success rate of patient satisfaction from 67% to 85% and waiting time from 180 minutes to 80 minutes.

CONCLUSION: The results of this project suggests that a simple set of intervention assigning responsible person for medical record unit, giving training and using tracer card reduce the long OPD waiting time and improve client satisfaction. Among the three of them intervention, assigned responsible person for medical record unit was taken a great role to achieved the objective of this study.

RECOMMENDATION: It is better if the department takes special consideration on full implementation and proper usage of a tracer card and continuous on job training should be given for the medical record unit staffs.

Key words: OPD waiting time, client satisfaction

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1. ORGANIZATIONAL DESCRIPTION

Teklehaimanot General Hospital (TGH) is a private hospital built in Addis Ababa , around SomaleTera.. It stared like a small clinic located in the same area in 1993 E.C followed by another higher clinic after a year on the Gola side of Tekelhaimanot square. The hospital started to work in 2004 E.C fully equipped with modern medical equipment's including CT scan.

It has almost all of the disciplines like:- Internal medicine, surgery, pediatrics, Gynecology & Obstetrics, Radiology, Orthopedics, Neurology, Dermatology, Gastroenterology, Urology, ENT & Ophthalmology Oncology, Hematology, Vascular surgery, Dentistry, .

The wards are Medical, surgical, ICU, NICU & Emergency rooms are well equipped & give quality care in addition to the above. It also gives service like :-Physiotherapy, EEG, NCS, Evoked potential, Echocardiography, Stress Test ,pulmonary Function Test, Fibro touch scan, Colonoscopy & Gastroscopy.

The NICU & ICU center are well equipped with monitor, mechanical ventilators & Defibrillators. The hospital has out patient, Inpatient & Emergency pharmacies which serve for 24 hours.

It target the lower & middle classes as the cost is faire & affordable, a center where the Oath of Hippocrates met. Total population served more than1.5 million people coming from different catchment sub cities and around city rural areas. Currently the hospital has 75 beds. Total OPD room is in Number 12, per day around 250 patients was seen, and among those 135 patients had follow up.

The hospital is staffed by 15 specialist ,8general practitioner 87 nurses 22laboratory technicians and technologists 18, 12 pharmacists & pharmacy technician, 5 x-ray technicians ,8 midwife , 5 Health Officers , Anesthetist 2 and 186 Other none technical staff .`

Among the KPI service like BOR is 8o%, inpatient ALOS in the hospital is 6 days & at ER 5 hour.

2. INTRODUCTION

2.1 Background

Registration time, payment process/cash billing, recording classification/triaged time, few human re sources and work process are the determinants of patient waiting time in the general outpatient depa rtments. Satisfaction is related to more partnership building, more social conversation, courtesy, clear communication and information, respectful treatment, length of consultation, cleanliness of facility and waiting time.[1] WHO reports state that in most African country there is lacked of skilled human resources, logistic support, infrastructure, professionally trained non-technical staffs which has a great factor for longer waiting time. [2]

The OPD waiting time is one of the key performance Indicators that should be reported to their Governing board and RHB has measure of hospital performance.[13] Waiting time is an indicator of service quality in that it examines several of six dimensions of quality, including the effectiveness and efficiency of the outpatient service to patients.

Waiting times have constantly been a problem for outpatient clinics [4]

The OPD waiting time and customer satisfaction are a measure of the quality of care provided at the hospital. Government has strong commitment to improve health care quality. Achievement of quality care service requires addressing the problems that are associated OPD waiting time and customer satisfaction. The aim of this project is to find practical solution for the problem related with OPD waiting time and customer satisfaction. According to KPI standard and TGH work flow of OPD waiting card, only 5 OPD waiting time check lists are took to assess the time spent at outpatient department. The average OPD waiting time is a proportion of the five minimums elements of the time motion are:-

- Arrived and Registration completed time
- Time taken for payment
- Time screened by triage nurse
- Time taken for card distribution by runner to OPD clinics.
- Entering time to physician/ consultation completed.

The average of these 5 items was used in this study.

2.2 Statement of the problem

Long OPD waiting time

Long OPD waiting time is one of a major observed challenges in TGH outpatient department. It is an indicator of significant problems that affects the quality of health care. Quality health care data play a vital role in the planning, developments, the maintenance of health care service. [1] The most significant negative effects of long OPD waiting time: - poor quality of care, treatment delaines and it has also an impact on hospital acquired infection and in other approach reduced unnecessary waiting time at OPD bring quality health services and meet health service standard, vital for producing accurate and reliable for effective treatment.

The Institute of Medicine (IOM) recommends that, at least 90% of patients should be seen within 30 min of their scheduled appointment time.[4] This is, however, not the case in most developing countries, as several studies have shown that patients spend 2-4 h in the outpatient departments before seeing the doctor.[5,6,7] and several studies have documented the negative association between increased waiting time and patient satisfaction with primary care.[9,20]

Patients are waiting longer time in each process starting from arrival of patient at registration room, central triage, and completed of physicians consultation. The major compliant for the last three years was the registration time taken longer and inappropriate, as a result it brought the low quality health care services and customer dissatisfaction, the existence of long waiting time is the one of the biggest problem of the TGH. By using problem ranking matrix different problems have seen their impact is mild, moderate or severity and also they are rare, common or always seen. Accordingly long waiting time is selected due to its severity and always the problem was happened. However there are problems that still need special attention. .

2.3 Anticipated outcome

This project has a vital role to improve health care quality and patient satisfaction by reducing OPD waiting time from 180minutes to 80 minutes and improve customer satisfaction from 67% to 85 % at the end of June 2019 by implementing the best selected intervention.

2.4 Public health relevance

The public health relevance of this project is improving the provision of quality health care Services to ensure safe and on time treated the patient, efficient and effective services and improve the patient's experience and satisfaction as well as the public by reducing OPD.

3. ROOT CAUSE ANALYSIS

Long OPD waiting time in TGH is caused due to different factors that can be generally classified in four thematic factors: - people, process/policy, equipment and environment.

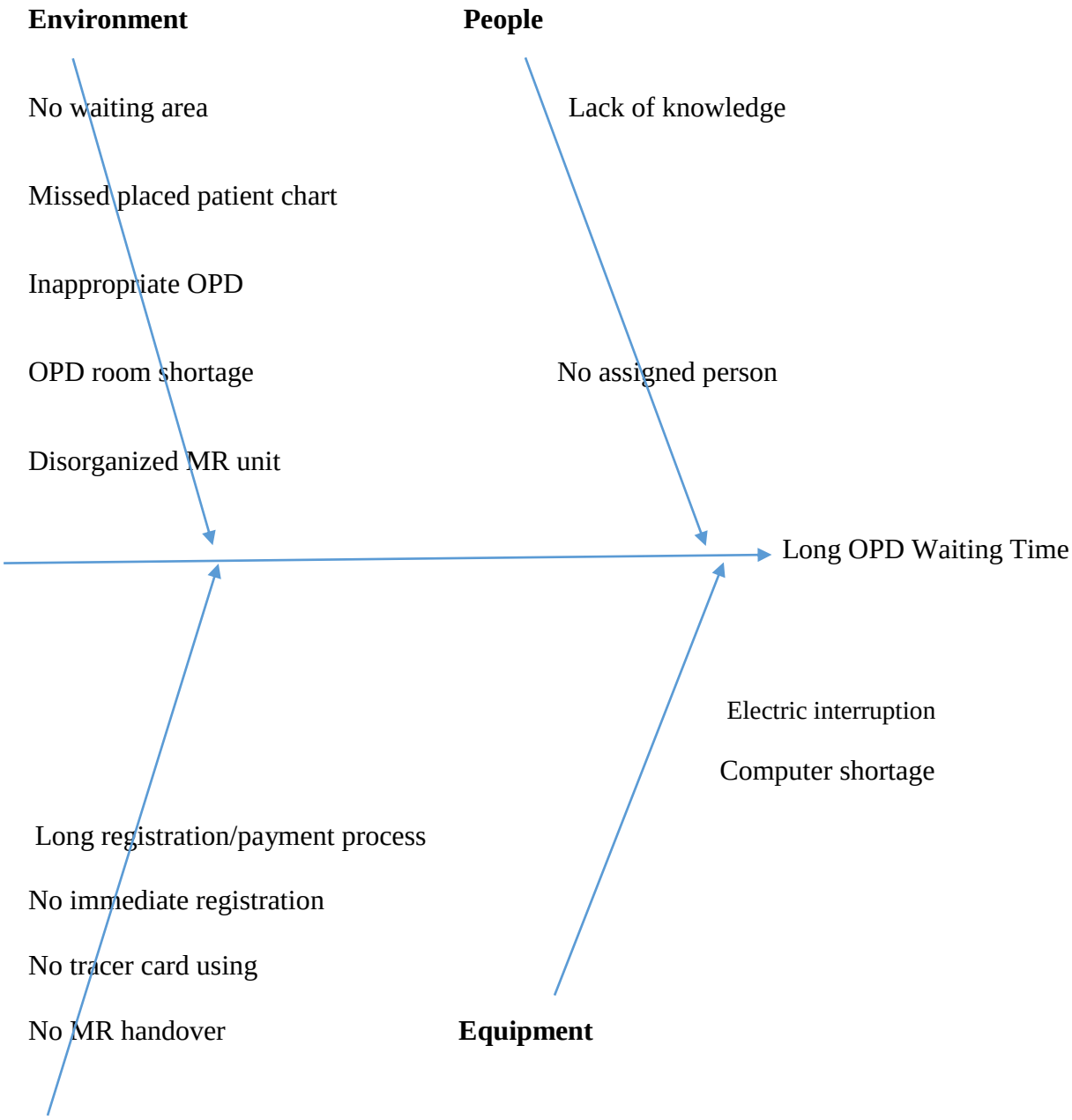
- **Method used to identify the root causes**

A meeting was made in hospital for further analysis of the problem root causes with staffs, SMT and Quality unit. Every member of the management team tried to give ideas that the individual thinks for the cause of the problem that needs to be solved.

Tools used were brainstorming and Fishbone diagram. The causes of the problem which got from the brainstorming session or during our discussions has been segregated into direct improvement needed causes.

3.1. Possible root causes

- There is no responsible assigned person at medical record unit
- Missed placed of patient medical record.
- Disorganized a medical record unit
- No using patient medical record tracing system (tracer card)
- No patient medical record handover system between runner & medical record unit
- Long process for registration starting from distribution of order numbers, triage, payment and distribution of cards.
- No immediate starting and registration time.
- Shortage of human power like cashier, runner and registrar.
- There is no computerized system due to electricity interruption



Policy

Figure.1 fish bone diagram (problem; long OPD waiting time) Fish bone diagram does not tell the real cause of the problem it is just display the possible root cause recommended by stake holders so, it needs further analysis

3.2 Verification

No	**Suspected Root Cause**	**Method of Verification**	**Accept/reject**
1	Inappropriate OPD	Observation / interview	Reject
2	No responsible assigned person at MR unit to coordinate work flow	Observation /Interview	**Accept**
3	Long process for registration/ payment	Observation/interview	Reject
4	Long triaging time	Observation/interview	Reject
5	No MR tracing system (Tracer card)	Observation/interview	**Accept**
6	Missed placing MR	Observation/interview	**Accept**
7	Shortage of Human power at central triage & reception area	Observation/documentation	Reject
8	Shortage of examination room	Observation/documentation	Reject
9	No patient medical record handover system between runner & medical record unit	Observation/interview	**Accept**
10	There is no enough computer	Observation/interview	Reject
11	There is no computerized system due to electric interruption.	Observation/interview	Reject
12	Lack knowledge on how to triaging	Observation/interview	Reject
13	No waiting area	Observation	Reject
14	Disorganized MR unit	Observation	**Accepted**

- Among those 3 involved central triage staffs 95% have enough knowledge& have training about How & when triaging performed so in our interpret lack of knowledge is **rejected**
- Basic equipment's that required in the card rooms, triaging room like computer have enough due to this reason **we reject shortage of computer**
- The hospital have huge backup generator , due to this **we reject electric interruption**
- There are No assigned person for coordinate the MR unit work flow , so **we Accept** No assigned person
- There are more than enough space for waiting area , so **we reject No waiting area**
- Per 12 OPD , each OPD has one runner for card distribution & they perform their duty timely , **We reject long card distribution time**
- The hospital use Smart care/ computerized system, so **we reject Long process on registration, payment**
- The hospital is not use tracer card at MR unit, So, **We accept No Tracing System**
- There is no MR handovering system between runner & MR unit when they distribute the patient chart to different Drs . So, **We Accept**
- The medical record unit disorganized, **We accepted because the MR department staffs have no training on how to organize the files**.
- Most of the time , the patient MR were not found at the appropriate shelf , So, **We accept Missed placing patient MR.**

3.3 Identified as real root causes

As indicated above for Long OPD waiting time problem there are **five** identified accepted root causes by using verification criteria

- **No responsible assigned person at MR unit to coordinate work flow**
- **No MR tracing system (Tracer card)**
- **Missed placing MR**
- **Disorganized MR department**
- **No patient medical record handover system between runner & medical record unit**

Prioritization Matrix for real root cause (1-5 scale, 1 the least possible and 5 stands to a maximum priority)

S.no	**Problem**	**Evaluation Criteria**				**Total**	**Rank**
		severity	**Frequency**	**Acceptance**	**Cost**		
1	No responsible assigned person at MR unit to coordinate work flow	3	4	3	3	13	4
2	No MR tracing system (Tracer card)	4	4	3	1	12	5
3	**Missed placing patient MR**	**5**	**4**	**5**	**5**	**19**	**1**
4	No patient medical record handover system between runner & medical record unit	3	3	5	5	16	2

According to prioritization matrix , the real root cause is Missed placing patient MR

After knowing and identifying the real root cause the accepted result of root cause is our concern to make an improvement by generating change ideas and best solutions to intervene on that area to solve that problem.

4. LITERATURE REVIEW

Outpatient waiting time is an essential and first line of health facilities and is an important part of modern health services and considered to be crucial for the services offered in health education and transformation of health information. Satisfaction is related to more partnership building, more social conversation, courtesy, clear communication and information, respectful treatment, length of consultation, cleanliness of facility and waiting time.[1]

WHO reports state that in most African countries there is lack of skilled human resources logistic support, infrastructure, professionally trained non-technical staffs which has a great factor for longer waiting time. [2]

Time spent waiting is a resource investment by the patient for the desired goal of being see by the physician and therefore may be moderated by the outcome. Patient waiting time in outpatient clinics is often the major reason for patients' complaints about their experiences of visiting outpatient clinics.

Therefore, patient satisfaction with waiting time plays a crucial role in the process of health quality assurance or quality management. [3]

The studies done in India and Malaysia on patient satisfaction showed that waiting time had a significant association with patient satisfaction. The main factors leading to long waiting time are identified at medical record. However the waiting time for physician consultation demonstrates long delays of more than three hours in some cases. The main reason for dissatisfaction was long waiting time to get or complete the services. [8]

A survey conducted to assess patients' satisfaction on outpatient services in the hospitals of the Amhara Regional state, Ethiopia. Long waiting hours during registration. Visiting of doctors after registration. Laboratory procedures, and revisiting of the doctors for evaluation with laboratory results and obtaining drugs from pharmacies were associated with dissatisfaction. [9]

The Institute of Medicine (IOM) recommends that, at least 90% of patients should be seen within 30 min of their scheduled appointment time.[4] This is, however, not the case in most developing countries, as several studies have shown that patients spend 2-4 h in the outpatient departments before seeing the doctor.[5,6,7] and several studies have documented the negative association between increased waiting time and patient satisfaction with primary care.[9,20]

The duration of waiting time varies from country to country, and even within country it varies from center to center. Long waiting times have been reported in both developed and developing countries. In the USA, an average waiting time of about 60 min was found in Atlanta,[25]

In Nigeria, an average waiting time of about 173 min was found in Benin,[9] while in University College Hospital Ibadan, a mean waiting time of 1 h 13 min was observed.[24]

Patients spend substantial amount of time in the clinics waiting for services to be by physicians and other allied health professionals.

The degree to which health consumers are satisfied with the care received is strongly related tothe q uality of the waiting experience.

A recent study carried out at the outpatient departments in Mulago hospital found out that the overall satisfaction of patients with outpatient services is closely related to their satisfaction with waiting time. Reducing outpatient waiting times has been the focus of a large number of studies because waiting and treatment times are usually regarded as indicators of service quality. [5]

However, despite the declared importance of ensuring timely access to care, little research has actually measured how long patients wait and also examined any empirical associations with patient waiting time for outpatient care.

Jimma University specializes hospital concerning waiting times 20% reported that they served with in 15 minutes at the card room. This is consistent with a report from London where 47% of the respondents states that their doctor saw then within 15 minutes.

The above positive responses by clients in getting appropriate information about their disease, treatment and waiting time are encouraged for the clinic staff for further improvement of the services .[11]

Assessment of clients 'satisfaction with health service deliveries at Jimma university specialized hospital 37.2%of the clients was dissatisfaction by the overall waiting time to get the service. This is higher than the finding reported earlier in Jimma hospital which showed 20.4% of the clients have reported long waiting time .[12] Long waiting time at outpatient clinics is the one if common cause of patients' dissatisfaction all the above studies and strategies focused to reduce long waiting times and resulting increase patient satisfaction. This capstone project well utilizes the above schemes to improve the waiting time.

5. OBJECTIVES

5.1 General Objective of the study

Reducing outpatient waiting time from patient arrival at registration unit until to see physicians and increase customer satisfaction in Teklehaimanot General Hospital at the end of June 2019.

5.2 Specific objectives of the study

- Reducing outpatient waiting time from patient arrival at registration until to see physician from 180 minute to 80 minute in Teklehaimanot General Hospital at the end of June 2019.
- Increase customer satisfaction, and from 67% to 85% in Teklehaimanot General Hospital at the end of June 2019

6. METHODS

6.1. Project area and period

The study was conduct at Teklehaimanot general hospital found in capital city of Ethiopia in Addis Ababa Arada Sub city Woreda1.Thestudy was conduct from March 2019 to Jun 2019.

6.2 Project design

A pre- post intervention design was used in this project to assess the OPD waiting time and client satisfaction.

The pre-intervention assessment was conducted in the outpatient department of TGH, base line data were collect in Feb 2019 .based on the baseline, the OPD waiting time was long and low client satisfaction .therefore ,an intervention was conducted to reduce OPD waiting time and increase client satisfaction.

6.3 source population

All patients who visited outpatient department in TGH during the study period.

6.4 study population

An individual patient who have appointment/ follow-up at OPD from March 2019to June 2019 pre post intervention.

6.5 sample size determination

The minimum sample size was determined based on HPMI manual recommendation 100 patients for pre intervention and another 100 patients for post intervention with 3 interval.

6.6 Sampling technique

A total of 100 consenting patients at pre and another 100 patients at post intervention were recruited into the study using a systematic sampling technique based on HPMI sampling interval recommendation

K = Average number of targeted population

Minimum requirement sample size

K = 500 / 200

K = 2.5, this was, however, approximate 3

Where *K* is the sampling interval is 3, N= 200

Based on the above sampling interval, the systematic sampling technique was carried out as follows:

1. Simple random sampling was done for the first three patients to get the starting point.
2. Thereafter, every other appointed patient that came to the clinic was enrolled in the study until the required sample size was obtained.

6.7 Data collection procedure

Structured questionnaire and waiting time assessment card were used to elicit information on socio-demographic characteristics of patients, time spent for arrival and registration, time spent for triaging, time spent for paying, time spent in the waiting area, and time spent with a doctor. Trained health personnel assisted respondents who could not read or write in completing the questionnaire.

A pretested structured questionnaire was used for the data collection and administered by six trained health professional on face to face interview and two supervisors who have had experience in supervision were participating. Training is given by the principal investigator to all data collectors and supervisors on the rational, objective, the process and technique of data collection and the inclusion and exclusion criteria and about confidentiality we use an informed verbal Consent statement was read by the trained staff before filling the questionnaire, and only the patients who have no objections responded to the survey consecutive two days. Pilot testing was conducted at another hospital with same level of TGH and the patients those had an appointment at OPD prior to the actual data collection in the same hospital. The questionnaire contains close ended questions on socio-demography and client satisfaction. The client satisfaction was assessed using a scale formed by questions in the questionnaire. For confidentiality one specific indicator of the questionnaire used by the studied hospital is about OPD services.

Measured by having 5, 4, 3, 2, and 1 assigned to each Likert scale respectively, having the sum of scores of "very agree" and "agree" divided by the sum of the scores of all five scales ("very agree", "agree", "Not sure", "Disagree" and "very disagree"), and multiplying by 19 for each respective indicator to obtain satisfaction score.

In order to check for its clarity, understandability and simplicity in getting what it is aimed at and also for its redundancy and sequential order. The interview was conducted after informing about the purpose of the study intensively for each subject by the principal interviewers to get the reliable data. The principal investigator was coordinate, monitor and provides the necessary technical support of the overall data collection process and procedure and to ensure data quality and completeness.

6.8 Data management and analysis

Before entry data was coded and cleaned for consistency and completeness. Then data was entered into a pre drafted coding sheet on the Epi info Database. Data transferred from the Epi info database to SPSS version 20.0.Database using stat transfer for analysis.

Quantitative statistical variables were cross tabulated; Cross tabulation test was used to compare proportions, the level of statistical significance was set at 95% confidence interval. After normality test done it was not normality distributed so, Spearman' bivariate correlation analysis and independent variable test (Mann Whitney) was conducted to indicate the strength of association and variation between waiting times and respective patient satisfactions. The statistical significance level was set at P value 0.05 and 0.01, 95 % CI.

6.9 Inclusion and Exclusion criteria

6.9.1 Inclusion criteria

All adult patients who have an appointment at OPD during the study period.

6.9.2 Exclusion criteria

Critically ill patients, new visiting patients & that MCH department attended

6.10 Study Variables

6.10.1 Dependent variable: OPD waiting time

Client satisfaction

6.10.2 Independent variables: Tracer card utilization

Assigned responsible person

Staff awareness.

6.11 Ethical consideration

The study was carried out after getting permission from the ethical review committee of College Addis Ababa University School of public health; Communication made for TGH through formal letter obtained from AAU. All the necessary explanation about the purpose of the study and its procedures were explained to the respondent with the assurance of confidentiality.

All the participants were provided with written information explaining the purpose of the study and their right to anonymity and confidentiality. In addition, no pressure applied for individual to participate and they informed that they could refuse to answer any question that they could stop the interview at any time. The participant informed that their service got would not be affected in anyway if they refused to participate. Participants also informed that they may not get direct benefit from participation in the study, but that their participation may help to improve quality of care by this project finding..

6.12 Plan for dissemination

The result of this study will be forwarded to Addis Ababa university school of public health, Teklehaimanot general hospital and other stakeholders.

6.13 Operational definition

1. Outpatient waiting time: average time from arrival at the outpatient department registration to consultation completed with clinical & non clinical staff member.

2. Patient satisfaction: the customer's response to the evaluation of discrepancy between prior expectation and the actual performance of the service is perceived after its delivered.

3. Bed occupancy rate: the average percentage of occupied beds during the reporting period.

4. Average length of stay: the average number of days from admission to discharge, death or transfer out.

7. DEVELOP ALTERNATIVE INTERVENTIONS

This is the step to list all the possible strategies you might pursue to solve the problem.

- Assign responsible Medical record personnel
- Conducting onsite training for medical record staffs on chart placement arrangement on shelf
- Utilize Medical record tracing mechanism
- Create medical record handover system

7.1 comparative analysis of Alternatives

In order to identify the best alternative intervention we use decision matrix tools which help to compared based on the criteria depend on what is most important to our decision

Table 1： Decisions Matrix: Qualitative

	Evaluation criteria 5=very high; 4=high ;3=moderately high;1=low				
Strategic alternative	**Impact**	**Feasibility**	**Cost**	**Time**	**Total**
Conducting onsite training	**Very High**	**Very High**	**Very High**	**3 month**	
Assign responsible Medical record personnel	**Very High**	**Very High**	**Low**	**1 month**	
Utilize Medical record tracing mechanism	**Very High**	**High**	**Very high**	**3 month**	
Create medical record handover system	**High**	**High**	**Low**	**1 month**	

Table Decision Matrix: Quantitative

	Evaluation criteria 5=very high; 4=high ;3=moderately high;1=low				
Strategic alternative	**Impact**	**Feasibility**	**Cost**	**Time**	**Total**
Conducting onsite training	**5**	**5**	**4**	**5**	19
Assign responsible Medical record personnel	**5**	**5**	**5**	**5**	**20**
Utilize Medical record tracing mechanism	**5**	**4**	**4**	**4**	17
Create medical record handover system	**4**	**5**	**5**	**2**	16

7.2 Selected intervention (Best Intervention)

Based on the above comparative analysis alternatives qualitative and quantitative decision matrix that used criteria for comparison how much will it improve the problem, how long will it take to work, political and stake holder acceptance and its cost.

Due to this reason and in order to make reduce long OPD waiting time we selected those below listed as a best strategy

1. Assign well trained Responsible Medical Record Personnel
2. Conducting onsite training
3. Utilize Medical record tracing mechanism

7.3 Implementation

Implementation accomplishments

- What activities or tasks?
- When does each activity need to start and end?
- Who is involved with implementing the plan?
- What is each person's role?
- The list of activities and time line (GANTT chart)
- Creation of a budget

The following interventions implemented in the hospital:

- Onsite training:-Onsite training was given at April last, 2019 for medical record workers, training given by local staff on Medical record management of the following topic

(i) Awareness and sensitization creation on the importance of medical records keeping.

(ii) Awareness and sensitization creation on how to arrange and placed the medical records (Alphabetic, in number sequence).

(iii) Medical record as part of hospital key performance indicator for quality of care.

During intervention implementation the main focus was to provide training for the selected **7** medical record department worker for one day on the above topics.

- **Assigned responsible person for medical record department**: -to assigning the responsible person for the department, TGH has recruitment / hiring committee, based on its recruit/hiring policy first gave the chance for inside workers who have better experience on medical record management, but no body have experience among workers on it because of this the committee follow the new staff recruitment process and in the middle of April 2019 recruited the employee and joined the training.
- **Utilize medical record tracer card**: whenever a medical record is removed from files for any purpose, it should be replaced by a TRACER, which indicates where the medical record has been sent. The best type of tracer is a card, usually the same size or slightly larger than the medical record, on which should be written :
    - The patient's name
    - The patient's MRN
    - Where the medical record is going; and
    - The data the record was removed from file.

A tracer can be as simple as a blank piece of A4 cardboard where the information is recorded in pencil. On the return of the medical record, the information is erased and the tracer used again. All of these above mentioned evidence the tracer card printed by CEO order and sensitized and encouraged the medical record workers started to utilize at April last, 2019.

8. EVALUATION PLAN

Plan-do-study-act (PDSA) cycle Ethiopian Health Reform Implementation Guide suggest How to review and evaluate organizational performance (usually pre-post studies) Baseline---intervention---follows-up

- Process indicators

 No_ of staffs sensitized

 Medical record unit workers ---7/7------100%

 Assigned responsible person for MR unit ---------1/1--------100%

 utilized trace card ----------100%

- Outcome indicators

 Decreased long waiting time 180 minutes to 80 minutes

 Increased patient satisfaction 67% to 85% by Likert scale.

9. RESULT

9.1 socio-demographic characteristics

A total of 200 clients were involved in this study, 100 clients for the pre intervention and another 100 clients for the post intervention with a response rate of 100% . At pre intervention the respondents were predominantly Female (66%) , married (47%), Tertiary education (46%), the participants were between 15-65years with a mean (± SD) of age 33.6 (± 12.3)years and at post intervention were predominantly Female (69%), married (61%), secondary education (43%),the participants were between 22-62years with the mean (± SD) age of 39.4(± 10.9)years. The study participant before and after intervention had no difference by level of education (P = 0.382) and gender (p = 0.651) but they had difference by age (P = 0.010). To get the p- value, I used Non parametric independent variable test (Mann Whitney).

Table 2: Socio-Demographic variables, Teklehaimanot General Hospital at Addis Ababa June 2019

Variables	Pre-Intervention		Post- Intervention		P value
	Frequency	Percent	Frequency	Percent	
Age(Years) n= 100					**0.010**
15 – 24	31	31	11	11	
25 – 34	25	25	29	29	
35 – 44	16	16	29	29	
45-54	19	19	17	17	
>55	9	9	14	14	
Total	100	100	100	100	
Sex(n=100)					**0.651**
Male	34	34	31	31	
Female	66	66	69	69	
Total	100	100	100	100	
Educational level(n= 100)					**0.382**
Illiterate	2	2	1	1	
Primary	12	12	16	16	
Secondary	40	40	43	43	
Tertiary	46	46	40	40	
Total	100	100	100	100	
Mean(SD)	33.6 (12.3)		39.4 (10.9)		

9.2 Pre post intervention outpatient waiting time

During pre-intervention period the average waiting times at outpatient was 180 minutes from the patient arrived & registration completed till entering to physician & consultation completed. The average waiting time at outpatient this reduced to 80 min during post intervention period of March 2019 – June 2019.

At pre intervention, around 63% respondents spent between 65-85min from arrival to registration completed and only 37% waited for more than 85 min to be registered with a mean ($\pm$ SD) 85 ($\pm$9.1) , 68 % respondents spent between 10 – 15 minute for payment with 15 ($\pm$4.01) and 32 %

waited for more than 15 min to be paid , 99 % participants spent between 15 – 20 minutes for screened by triage nurses with 15 (± 3.4) minutes , 69 % waited range 15 – 30 minutes for card taken by runner with 30 (± 4) , 77 % respondents waited range 20 – 30 minutes for entering & consultation completion with 30 (±3.2) minutes. On average the client spent 180 minutes at OPD from registration completion till doctor consultation in TGH.

After intervention, sixty six percent (66/100) respondents waited between 10 and 15 minutes with a mean (SD) 15(±1.9 , P< 0.001) min to be registered the finding shows that as significant reduced ,Card distribution time to OPD clinic for 67% (67/100) respondents spent less than 15min(11-15)the mean (SD) 15min (±2 , P <0.01), 70%for payment with 10 (± 1.8 , P< 0.01) , 70 % respondent were satisfied with time spent for screened by triage nurses with 15 (± 1.7 , P < 0.01), 67 % satisfied with time waited for entering and consultation completed time of 25 (±2.3 , P = 0.939)

The time required to retrieve waiting time statistically significant improved from 180 minutes to 80 minute.

Pre- intervention outpatient waiting duration chart

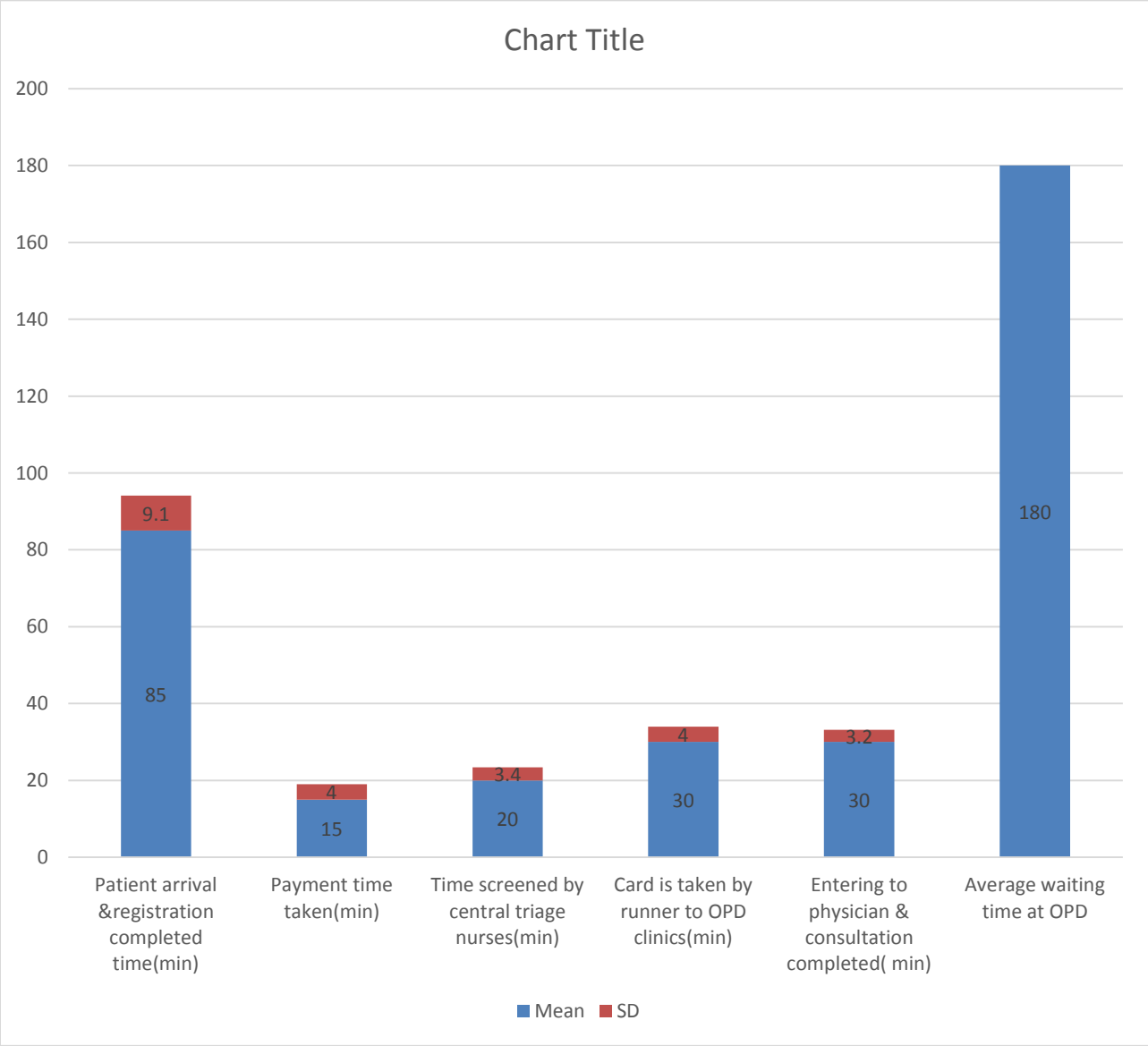


Table 3 : Post -intervention OPD waiting time

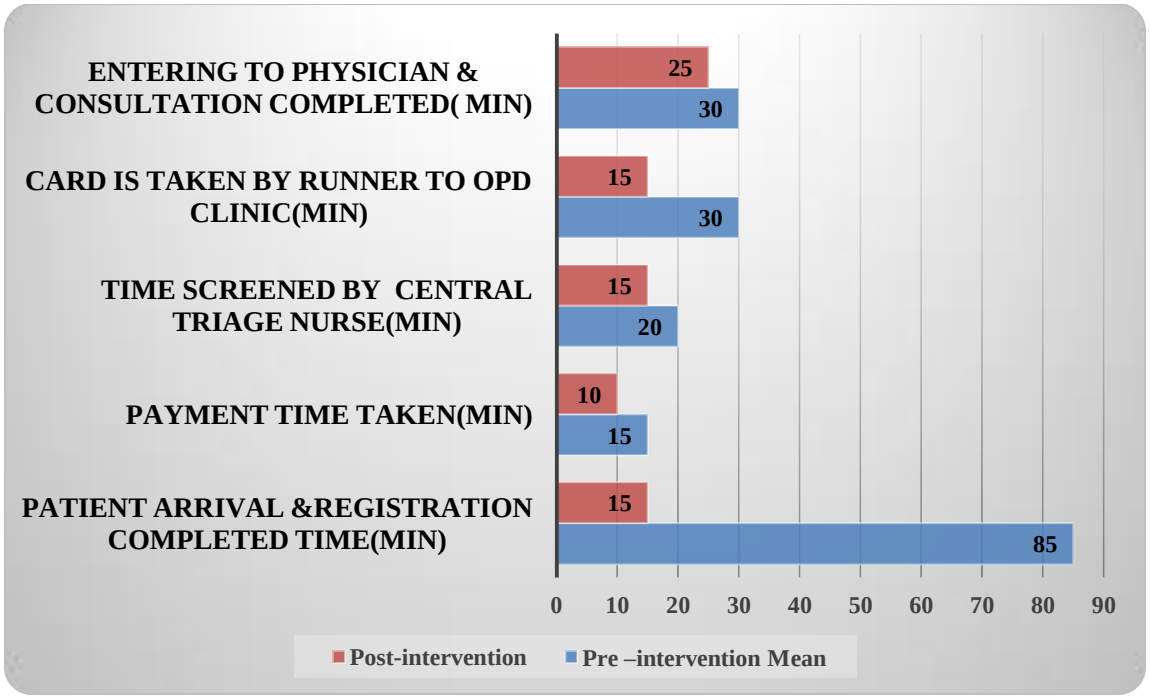
Variables	Patient arrival &registration completed time(min)	Payment time taken(min)	Time screened by central triage nurses(min)	Card is taken by runner to OPD clinics(min)	Entering to physician & consultation completed(min)	Average waiting time at OPD
Mean	15	10	10	15	30	80
SD(+)	1.9	1.8	1.7	2	2.3	
Min.	11	6	5	11	25	58
Max.	19	14	15	19	35	102

Table 4 : Pre and post intervention changes in outpatient waiting time (minutes) at Addis Ababa city Teklehaimanot General Hospital from March to June 2019

Time Motion	Pre – intervention Mean(SD)	Post-intervention Mean(SD)	**P- Value**
Patient arrival &registration completed time(min)	**85(±9.1)**	**15(± 1.9)**	**< 0.01**
Payment time taken(min)	**15 (± 4)**	**10 (± 1.8)**	**< 0.01**
Time screened by central triage nurse(min)	**20 (±3.4)**	**15(± 1.7)**	**< 0.01**
Card is taken by runner to OPD clinic(min)	**30 (± 4)**	**15 (±2)**	**< 0.01**
Entering to physician & consultation completed(min)	**30 (±3.2)**	**25(± 2.3)**	**0.939**
Total	**180 minutes**	**80 minutes**	

To get the p- value I used Non parametric independent variable test (Mann Whitney) .

Pre- post intervention outpatient waiting duration chart



9.3 Pre-post intervention client satisfaction

During pre-intervention period the client satisfaction on outpatient department service was

67 %. Post intervention increasing client satisfaction significantly to 85 % during post intervention period of March 2019 – June 2019.

At pre intervention, around 67% respondents who have appointment were dissatisfied on the system of registration, 58% respondents said the registration had no impartiality, 59% respondents dissatisfied on time taking to registered, 63% respondents also respond as it was not cleared how to registered for appointed clients, around 60% dissatisfied on the time of taking of charts to OPD clinics and 41 % respondents disagreed to recommend the TGH outpatient department service to others.

Table 5 : Pre intervention client satisfaction cross tabulation

Count		Rank pre- intervention Satisfaction		Total
		Yes	**No**	
Record office workers listened me attentively	Yes	**67**	**0**	**67**
	No	**7**	**26**	**33**
	Total	**74 %**	**26 %**	**100 %**
Triage professionals listened me attentively	Yes	**67**	**0**	**67**
	No	**7**	**26**	**33**
	Total	**74 %**	**26 %**	**100 %**
It was clear the way of reception	Yes	**67**	**0**	**67**
	No	**15**	**18**	**13**
	Total	**82 %**	**18 %**	**100 %**
There is no waiting area problem	Yes	**67**	**0**	**67**
	No	**18**	**15**	**33**
	Total	**85 %**	**15 %**	**100 %**
The system of registration for appointed…..	Yes	**30**	**37**	**67**
	No	**4**	**29**	**33**
	Total	**34 %**	**66 %**	**100 %**
Easy to move from place to place for registration	Yes	**66**	**1**	**67**
	No	**8**	**25**	**33**
	Total	**74%**	**26%**	**100%**
The registration has no impartiality	Yes	**36**	**31**	**67**
	No	**6**	**27**	**33**
	Total	**42 %**	**58 %**	**100 %**
It is cleared how to registered ……	Yes	**33**	**34**	**67**
	No	**4**	**29**	**33**
	Total	**37 %**	**63 %**	**100 %**
The staff welcoming greeting is good	Yes	**67**	**0**	**67**
	No	**7**	**26**	**33**
	Total	**74 %**	**26 %**	**100 %**

The triage time is enough	Yes	**67**	**0**	**67**
	No	**7**	**26**	**33**
	Total	**74 %**	**26 %**	**100 %**
The time for paying is good	Yes	**67**	**0**	**67**
	No	**22**	**11**	**33**
	Total	**89 %**	**11 %**	**100 %**
The registration time is relevant	Yes	**34**	**33**	**67**
	No	**7**	**26**	**33**
	Total	**41 %**	**59 %**	**100 %**
The time of taking to OPD waiting is relevant	Yes	**34**	**33**	**67**
	No	**6**	**27**	**33**
	Total	**40 %**	**60 %**	**100 %**
The waiting time to get doctors is appropriate	Yes	**67**	**0**	**67**
	No	**15**	**18**	**33**
	Total	**82 %**	**18 %**	**100 %**
The distance between card room ……	Yes	**66**	**1**	**67**
	No	**32**	**1**	**33**
	Total	**98 %**	**2 %**	**100 %**
The record room space is enough	Yes	**66**	**1**	**67**
	No	**8**	**25**	**33**
	Total	**74 %**	**26 %**	**100 %**
The number of staff in central triage are enough	Yes	**61**	**6**	**67**
	No	**13**	**20**	**33**
	Total	**74 %**	**26 %**	**100 %**
The number of staff in record room are enough	Yes	**67**	**0**	**67**
	No	**7**	**26**	**33**
	Total	**74 %**	**26 %**	**100 %**
I recommended to others to use this facility	Yes	**51**	**16**	**67**
	No	**8**	**25**	**33**
	Total	**59 %**	**41 %**	**100 %**

After intervention, eighty two percent (82/100 , $P < 0.05$) respondents were satisfied on the system of registration,85% ($P<0.01$)respondents said the registration had impartiality,89% ($P <0.01$) respondents were satisfied on time taking to registeredorrelevant,85% ($P < 0.01$) respondents also

respond as it was cleared how to registered for appointed clients, 93% (P < 0.01) were satisfied on the time of taking of charts to OPD clinics and 93 % (P < 0.01) respondents agreed to recommend the TGH outpatient department service to others. The overall client satisfaction on OPD service were delivered at TGH statistically significant improved pre post satisfaction 67 % to 85 % (P< 0.01 , P < 0.05)

Table 6: Post intervention effect on some client satisfaction measured variables cross tabulation

Count		**Rank post- intervention Satisfaction**		**Total**
		Yes	**No**	
The system of registration for appointed…..Yes		**81**	**4**	**85**
	No	**1**	**14**	**15**
	Total	**82%**	**18 %**	**100 %**
The registration has no impartiality	Yes	**84**	**1**	**85**
	No	**1**	**14**	**15**
	Total	**85%**	**15 %**	**100 %**
It is cleared how to registered ……	Yes	**84**	**1**	**85**
	No	**1**	**14**	**15**
	Total	**85%**	**15 %**	**100 %**
The registration time is relevant	Yes	**84**	**1**	**85**
	No	**5**	**10**	**15**
	Total	**89 %**	**11 %**	**100 %**
The time of taking to OPD waiting is relevant	Yes	**82**	**3**	**85**
	No	**11**	**4**	**15**
	Total	**93 %**	**7%**	**100 %**
I recommended to others to use this facility	Yes	**79**	**6**	**85**
	No	**14**	**1**	**15**
	Total	**93%**	**7 %**	**100 %**

Table 7: pre to post intervention result from the patient satisfaction questionnaire for OPD service at Teklehaimanot General Hospital,Addis Ababa city, June 2019. Showing P- value for each client satisfaction indicators

Client satisfaction	**Pre- intervention**	**Post- intervention**	**P-value**
Percentage of agree & agree for the following criteria			
Record office workers listened me attentively	**74%**	**82%**	**< 0.05**
Triage professionals listened me attentively	**74 %**	**82%**	**< 0.05**
It was clear the way of reception	**82%**	**85%**	**0.241**
There is no waiting area problem	**85%**	**88%**	**0.142**
The system of registration for appointed client has no problem	**33.4%**	**82%**	**< 0.01**
Easy to move from place to place for registration	**74%**	**74%**	**0.230**
The registration has impartiality	**42%**	**85%**	**< 0.01**
It is cleared how to registered for appointed client	**37%**	**85 %**	**< 0.01**
The staff welcoming greeting is good	**74%**	**82 %**	**0.489**
The triage time is enough	**74%**	**74%**	**0.899**
The time for paying is good	**89%**	**93%**	**0.607**
The registration time is relevant	**41%**	**89%**	**< 0.01**
The time of taking to OPD waiting is relevant	**40%**	**93%**	**< 0.01**

The waiting time to get doctors is appropriate	**82%**	**85%**	**0.829**
The distance between card room and outpatient clinic is near	**98%**	**98%**	**0.879**
The record room space is enough	**74%**	**85%**	**0.428**
The number of staff in central triage are enough	**74%**	**85%**	**0.447**
The number of staff in record room are enough	**74%**	**85%**	**0.129**
I recommended to others to use this facility	**59%**	**93%**	**< 0.01**
Total	**67 %**	**85%**	**< 0.001**

To get the p- value I used Non parametric independent variable test (Mann Whitney) .

9.4 The correlation of pre post OPD waiting time and client satisfaction

Non parametric independent variable test (Mann- Whitney) and Spearman bivariate correlation used to know the variation and correlation between before and after intervention of mean OPD waiting time and mean satisfaction, was implying a negative correlation between OPD mean waiting time and mean satisfaction but statistically significant ($P< 0.01$) , were after intervention mean satisfaction significantly improved from 67 % to 85 ($P< 0.001$).

Longer duration of patient arrival and registration completed time was negatively associated with satisfaction on the system of registration for appointed clients, the registration had impartiality , the time of taking to OPD waiting relevant and it is cleared how to registered for appointed client ($r = - 0.349$, $P < 0.01$) and also same on the rest satisfaction ,Payment time taken and time screened by central triage nurse there was no statically significant correlation with satisfaction , but the client are satisfied . Card taken by runner to OPD clinics have negative correlation with client satisfaction and statistically significant ($P< 0.05$). The time of entering to physician & consultation completed also negative correlation with satisfaction but statistically significant only with easy to

move place to place to registered for appointed client and the triaging time($r = -0.214$, $P < 0.05$) . On recommendation to others to use the facility there was positive correlation ($r = 0.031$) with four OPD waiting time measured indicators but not significance ., negatively correlated with the time of entering to physician and consultation completed but not significant associated. (Table showed on Annex I)

Table 8 : Post intervention OPD Waiting Time effect on total satisfaction level by using he spearman Bivariate Correlation of in Teklehaimanot General Hospital

OPD Time measured indicators	Total satisfaction	Sig. (2- tailed)
Patient arrival &registration completed time	-0.237*	0.017
Payment time taken	-0.327**	0.001
Time screened by central triage nurse	-0.296**	0.003
Card is taken by runner to OPD clinic	-0.263**	0.008
Entering to physician & consultation completed	-0.214*	0.032

** Correlation is significant at the level of 0.01 (2- tailed)
*Correlation is significant at the level of 0.05 (2- tailed)

10. DISCUSSION

The present study examined the real root cause of long OPD waiting time and its effect on client satisfaction. This study showed that the long OPD waiting have negative correlation with satisfaction but significantly associated ($P < 0.001$). Non parametric independent Mann Whitney test were used to know the variation of mean OPD waiting time before and after intervention, the finding showed that statistically significant variation ($p < 0.001$). Similarly I used the same testing method for client satisfaction during pre-post intervention the result showed statistically significant variation ($p < 0.001$).Reduced mean waiting time from 180 minutes to 80 minutes($p < 0.001$) and client satisfaction improved from 67% to 85%($P <0.001$) .

Many studies proved that, process matters in healthcare, a process improvement team approach for evaluating and redesigning the patient care system can be successful in reducing waiting times and raising patient satisfactions [14-16].

Lengthy waiting time has long been considered frustrating to patients and thus appears to be a consistent and significant potential cause of patient dissatisfaction. A strong inverse relationship between patient satisfaction and waiting time has been demonstrated by many studies [17-22].

and several studies have documented the negative association between increased waiting time and patient satisfaction with primary care .[9, 20] , this study findings also supported .

Whereas, the study conducted in the hospital of Amhara region the post intervention change of OPD waiting time during registration associated with satisfaction was 47.5 % so [9], the study in TGH shows higher rate 85 % of satisfaction and 80 minute of low OPD waiting time.

Determinant of patient satisfaction with outpatient health services at public and private hospitals in Addis Ababa; Ethiopia have reported overall satisfaction levels ranging from 52%-57% which is 23% [1] difference from TGH 67 % - 85 % .

Assessment of clients 'satisfaction with health service deliveries at Jimma University Specialized Hospital conducted in outpatient departments revealed client satisfaction level ranging from 22%in Gondar to 57% in Jimma long waiting hours during registration .comparatively in TGH (63 % - 66 %)is better than Gondar and Jimma[10,12].

At same time study conducted at Jimma University specialized hospital Concerning waiting time 20 % and more than half reported that they were served within 15 minutes at the card room till registration completed [11]. It was similar with TGH this is 15minutes.

The study conducted in Yekatit 12 hospital on OPD waiting time with associated with client satisfaction of pre intervention 61.3% to post intervention 80.4% and waiting time from pre to post intervention (175.22 minutes to 93 minutes) , whereas the study in TGH shows higher rate of satisfaction and low OPD waiting time 67 % to 85 % and 180 minutes to 80 minutes respectively.

The study were conducted in Amhara, the finding showed that only 7.8 % of the patient were actually satisfied with the service in the OPDs in FelegeHiwot referral hospital, whereas at TGH 85%. A hospital based comparative cross sectional study design was conducted in FelegeHiwot hospital and Debremarkos referral hospital, the mean waiting time observed in both hospital was 149 minutes and 94 minutes respectively and in Nigeria 85 minutes, it was long waiting time at OPD, these also the problem of TGH before intervention mean waiting time 180 minutes, comparatively it was higher than those hospitals.

Satisfaction Level with Patient Waiting Time of Felege hiwot referral hospital 18 (7.8%) which was less than that of Debre markos referral hospital 40 (17.2%). Most of the respondents 214 (92.2%) in felege hiwot are dissatisfied by their

waiting time whereas in debre markos also majority of them 192 (82.8%) responded that they are dissatisfied during their waiting time to see by the doctor at the general outpatient department. Whereas, at TGH pre- intervention 77 % respondents dissatisfied on waited range 20 – 30 minutes for entering &consultation completion with mean (SD) 30 ($\pm$ 3.2) minutes, comparatively the client more satisfied at TGH than those two hospitals on their waiting time to see by doctor. Long registration time 59(25.4%),76(32.5) in Feleg hiwot and debre markos referral hospitals respe ctively, whereas in TGH at pre intervention the registration time was 85minutes(63%) ($\pm$9.1) longer than those both hospitals , post intervention it reduced significantly to mean waiting time (SD) 15 ($\pm$1.9 , $P < 0.01$).

The Correlation of Waiting Time and Other Variables in Feleg Hiwot Referral Hospital

Pearson correlation between waiting time less than or equal to and greater than 180 minutes and satisfaction was 0.230 thus implying a negative correlation between the two variables, (P=.007) but it was not significant .

Whereas, the correlation of waiting time and satisfaction in TGH Spearman's coefficient correlation implying a negative correlation with significant association between two variables and significantly associated ($P <0.001$), it showed the present study in TGH supported those the finding of negative correlation at FelegeHiwot referral hospital and Debremarkos referral hospital , but it differ in TGH findings was significant associated .

The commonest reason adduced by both above mentioned referral hospitals respondents for the long waiting time was, few doctors to attend to the large number of patients on the queue, long searching of cards and long registration time. For the long waiting time at OPD in TGH was Missed placing MR, no responsible assigned person at MR unit to coordinate work flow , no MR tracing system utilization (Tracer card) , ,disorganized MR department , no patient medical record handover system between runner & medical record , all of those mentioned reason resulted to prolonged time to registration completion it led client dissatisfaction. Even though those two above mentioned hospitals respondents' reason was not the same with TGH for long OPD waiting time but long registration time was the factor for the problem at TGH and which is similar with the findings of those studies.

The present study at TGH used more the study was conducted in Amhara &Jimma specialized hospital as a comparative, as my knowledge there is no studies on the same topic only in private hospital using problem solving strategies so, the researcher prefer to use as a reference those above mentioned studies, Even though those used comparative cross sectional study design instead of per post intervention study design.

As the result showed above, the long OPD waiting time reduced after the selected intervention was applied assigned and trained responsible person for medical record unit. The assigned person make a difference on organized client chart placement by ordering their sequential number; it avoid the missed placed of the chart, hence, the medical record office workers got the client medical record easily with appropriate time as per they arrival time this makes the client more satisfied on those the system of registration for appointed client , the registration impartiality, how to registered, the relevant of registration and OPD waiting time.

11. PROJECT STRENGTH

Without the support from hospital leadership, the project would not have been successful. Gained the support from the hospital senior management team at the early stages when presented baseline assessment results. Staff participation was also very interesting. They were involved in the root cause analysis all the way through implementation and evaluation. The project also created opportunity for the staff to gain knowledge and develop new skills. The staff learned about the strategic problem-solving approach, by building their capacity. This project also enabled them to initiate new quality improvement projects in the future. The utilization of pre-determined standardized sample size and data collection tools avoids the problem related to sample and content

of the study. The study was simple and cost effective not requires sophisticated technology and specialized personnel.

12. PROJECT LIMITATION

Although the results showed positive changes, encountered several challenges during the implementation process members of the management team was busy; finding time in their busy Schedule was a constant challenge. Despite the improvement of client satisfaction and reducing the OPD waiting time, the sustainability of the project will depend on a long-term follow-up. The post-evaluation period was relatively short. A longer evaluation period is necessary to ensure the change detected was not an isolated incident. Additionally, our intervention only focused on some real root causes of the problem because of lack of resource and time.

13. CONCLUSION

Over all patient waiting time at the general outpatient department showed that has demonstrated that, during pre-intervention the record of mean waiting time in Tekelhaimant General Hospital were 180 minutes with the range of 115 to 245 minutes , at post intervention became 80 minutes with the range of 58 to 102 minutes. And the client satisfaction pre post intervention became from 67 % to 85 %.

In TGH majority causes of long patient waiting time were missed placed of client chart, due to this reason the patients spent long time at registration room and long searching of cards. Patient waiting time and other variables like patient arrival and registration completion time, card taken by runner to OPD and doctor consultation these leads to dissatisfy the client.

The findings of this capstone project suggest a number of implications that a simple set of intervention assigned well trained & responsible focal person as intervention can decrease the OPD waiting time and improve client satisfaction

14. RECOMMENDATION:

Full implementation and proper management should be strengthened and the full support from hospital leadership is the key to success. Longer follow-up would be required to assess the sustainability of the registration process.

- Other components of factors to cause for long waiting time must be studied.

- Ongoing monitoring and accountability system should be implement
- It is better if the department takes special consideration on full implementation and proper usage of a tracer card
- Continuous training should be given for the medical record unit staffs

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Spearman correlation Sig. (2 tailed)	Record office workers listened me attentively	Triage professionals listened me attentively	It was clear the way of reception	There is no waiting area problem	The system of registration for appointed client has no problem	Easy to move from place to place for registration	The registration has no impartiality	It is cleared how to registered for appointed client	The staff welcoming greeting is good	The triage time is enough	The time for paying is good	The registration time is relevant	The time of taking to OPD waiting is relevant	The waiting time to get doctors is appropriate	The distance between card room and outpatient clinic is near	The record room space is enough	The number of staff in central triage are enough	The number of staff in record room are enough	I recommended to others to use this facility
Patient arrival &registration completed time	**-0.378****	**-0.378****	**-0.349****	**-0.349****	**-0.378****	**-0.393****	**-0.349****	**-0.349****	**-0378****	**-0.393****	**-0.217****	**-0.278****	**-0.051**	**-0.349****	**-0.048**	**0.006**	**-0.349****	**-0.349****	**0.031**
Payment time taken	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Time screened by central triage nurse	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Card is taken by runner to OPD clinic	**-0.225***	**-0.225***	**-0.241***	**-0.241***	**-0.225***	**-0.263***	**-0.241***	**-0.241***	**-0.225***	**-0.263***	**-0.058**	**-0.161**	**0.109**	**-0.241***	**-0.052**	**-0.003**	**-0.241***	**-0.241***	**0.026**
Entering to physician & consultation completed	**-0.169**	**-0.169**	**-0.182**	**-0.182**	**-0.169**	**-0.214***	**-0.182**	**-0.182**	**-0.169**	**-0.214***	**-0.058**	**-0.161**	**-0.058**	**-0.182**	**-0.052**	**0.116**	**-0.182**	**-0.182**	**-0.058**

APPENDIX I : The Correlation of OPD Waiting Time and Client satisfaction in Teklehaimanot General Hospital

** Correlation is significant at the level of 0.01 (2- tailed)

*Correlation is significant at the level of 0.05 (2- taile

Appendix II

አዲስ አበባ ዩኒቨርሲቲጤና ሳይንስ ኮሌጅ

የህብተሰብ ጤና ትምህርት ክፍል

ለተሳታፊዎች የስምምነት ሰነድ

የዳሰሳ ጥያቄ

የጥያቄው መለያ ----------የሆስፒታሉ ስም ----------

ጤና ይስጠልኝ ፡ ስሜ ----------እባላለሁ የመጣሁት የጥናቱ ባለቤት ወ/ሮ ትዕግስት ብርሀኑ የተባሉት ለሁለተኛ ዲግሪ መመረቂያ የሚሆን ጥናታዊ ፅሁፍ በተመላላሽ ህክምና ክፍል የሚያገኙ ታካሚዎች አገልግሎቱን ለማግኘት ከሚወስድባቸው የቆይታ ጊዜ ጋር ተያያዝነት ባለው እርካታ የዳሰሳ ጥናት መረጃ ለመሰብሰብ ሲሆን በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የህብረተሰብ ትምህርት ክፍል ፍቃድ አግይተዋል። መረጃው የሚሰበሰበው በአዲስ አበባ ውስጥ ከሚገኝ የግል ሆሲፒታል ከሆነው ተክለሀይማኖት ጠቅላላ ሆስፒታል ተገልጋዮች ላይ ነው። እርስዎ የሆስፒታሉ አገልግሎት ተቀባይ በመሆንዎ በጥናቱ ላይ ተሳታፊ ሆነዋል። ይህን መረጃ ለመሰብሰብ የሚመለከተውን ሃላፊ ያስፈቀድን ሲሆን እርስዎ በፈቃደኝነት ላይ በተመሰረተ የሚሰጡን መረጃ ሚስጥራዊነቱ የተጠበቀ እና ለጥናቱ ብቻ የሚውልነው። የግል መረጃዎችን የሚያንጸባርቁትን ይህ ጥናት እንዳለቀ እንደ ሚሰረዙ ሆኖ ነገር ግን ጥሬ ሃቆች የጥናቱን ማለቅ ተከትለው ቢያንስ እስከ አምስት አመት ሊቀመጡ ይችላሉ። ስለዚህ ፍቃደኛ ከሆኑ አንድ አንድ ከአገልግሎት ጋር የተያያዙ መረጃዎችን ከ15--20 ደቂቃ ላልበለጠ ጊዜ እጠይቆታለሁ ። ጥናቱ ላይ ለመሳተፍ ፍቃደኛ ከሆኑ ስጠይቆት በመሃል መጠየቅ ፤ብሎም ማስቆም ይችላሉ። እርስዎ በጥናቱ ላይ ስለተሳተፉ የሚደርስብዎት ችግር የለም ። እስከ አሁን ከነገርክዎት ወይም ጥናቱ ላይ በተመለከተ ሊብራራልዎት የሚፈልጉት አለ

አሁን ጥናቱ ላይ ለመሳተፍ ፍቃደኛ ኖት አይደለሁም (አመስግናለሁይበሉ)

አዎ----------ጥያቄውን ይቀጥሉ

የጠያቀው ስም---------- ፊርማ----------ቀን----------

ስልክቁጥር----------(መረጃ ሰብሳቢ ፣ሱፐርቫይዘር፣ሌላእማኝ)

ጥናቱ ላይ ስለተሳተፉ አመሰግናለሁ

የጥናቱባለቤት፡ ትዕግስትብርሃኑ

አድራሻ፡ ስ.ቁ፡ 0912 16 56 76

ኢ-ሜል tigina96@gmail.com

APPENDIX II .Information sheet and agreement form

Information Sheet and agreement form for study participants an assessment of client satisfaction on outpatient department service.

Name of school - **Addis Ababa University**
Name of Principal investigator- Tigist Birhanu
Name of health institution Teklehaimanot General Hospital

Introduction

This information sheet and agreement form is prepared by the principal investigator to clarify the study that you are asked to take part. So you invite to see this form carefully before you decide to participate or not. Please be aware that you are not obliged to participate in the study. If there is any un clarity you welcome.

Purpose

The main purpose of this research is to assess the OPD waiting time and client satisfaction on outpatient department service at Tekelhaimanot general hospital. This finding helps us to identify the main problem of OPD service delivery that is important to increase the client satisfaction on OPD service.

Procedure

If you are willing to participate in this project, you need to understand and give the verbal consent. Then you will be interviewed by the data collector. We will not ask you personal questions.

Risk/Discomfort

There is no any risk/anticipated harm which will happen to you due to your participation, but you may feel discomfort owing to your wasted time but it is not as such long

Benefit or Incentive

By your participation, you may not get the direct benefit/incentive, but you can contribute to improve quality of care /service by this study finding.

Confidentiality

The information that we will gather from this study will be kept confidential, and used only for research purpose. We use a code (number) in the questionnaire, you need not to tell your name because we want to assess an average finding but not individually.

Right to refuse or withdraw

Your participation in this research is fully based on your willingness and you have also a right to refuse some question you are not willing to answer. You have also a full right to withdraw from this study at any time you want.

Person to contact If you have any question you can contact:-

Principal investigator ***Tigist Birhanu***

Advisor, Dr. ANAGAW DERSEH MEBERATE (PHD)

MS. BIRHAN TASEW (MPH)

Email tigina96@gmail.com

Cell phone +251 912 16 56 76

Study Consent

If you agree to participate, please give verbal consent

Date _____

Signature of principal collector _____

APPENDIX III. Medical and surgical outpatient Satisfaction survey

No	Client satisfaction	Very agree(5)	Agree(4)	Not sure(3)	Disagree(2)	Very disagree(1)
201	Record office workers listened me attentively					
202	Triage professionals listened me attentively					
203	It was clear the way of reception					
204	There is no waiting area problem					
205	The system of registration for appointed client has no problem					
206	Easy to move from place to place for registration					
207	The registration has no impartiality					
208	It is cleared how to registered for appointed client					
209	The staffwelcoming greetingis good					
210	The triage time is					

	enough					
211	The time for paying is good					
212	The registration time is relevant					
213	The time of taking to OPD waiting is relevant					
214	The waiting time to get doctors is appropriate					
215	The distance between card room and outpatient clinic is near					
216	The record room space is enough					
217	The number of staff in central triage are enough					
218	The number of staff in record room are enough					
219	I recommended to others to use this facility					
	Total					

	መስፈርቶች	በጣም እስማማለሁ	እስማማለሁ	እርግጠኛ አይደለም	አልስማም	በጣም አልስማማም
201	በዛሬው ክትትሌ የካርድ ክፍል ሰራተኞች በጥሞና አዳምጠውኛል					
202	በዛሬው ክትትሌ የልየታ ነርስ ባለሞያዎች በጥሞና አዳምጠውኛል					
203	በተቋሙ የተስተናገድኩበት አቅጣጫገልፅ ነበር					
204	በጤና ተቋሙ የመቆያ ቦታው ምንም ችግር የለውም					
205	የካርድ አወጣጡ ስርዓት ምንም ችግርየበትም					
206	የካርድ አወጣጡ ስርዓት ከአንዱ ቦታ ወደ ሌላ ቦታ ለመሄድ ቀላልነው					
207	በካርድ አወጣጥ ስርዓትምንም አይነት አድልዎ የለም					
208	የካርድ አወጣ ስርዓቱ ግልፅ ተደርጎልኛል					
209	የሰራተኞች የእንኳን ደህና መጣችሁ የአአቀባበል ጥሩ ነው					
210	በጤና ባለሙያዎች ክፍል የመለያ ጊዜው በቂ ነው					
211	ለክፍያ የሚወስደው ጊዜ በቂ ነው					
212	ለካርድ ምዝገባ የሚወስደው ጊዜ አግባብነት ያለው ነው					
213	ወደ ህክምና ክፍል የሚወሰድበት ጊዜ አግባብነት ያለው ነው					
214	ሀኪሙን ለማግኘት የሚወስደው ጊዜ ተገቢ ነው					
215	ከካርድ ክፍል ወደ ህክምና መስጫው ለመሄድ ቀላል እና ቅርብ ነው					
216	የካርድ ክፍል አገልግሎት መስጫ ስራ በቂ ነው					

217	የልየታ ክፈል ነርሶች ብዛት በቂ ነው					
218	የካርድ ክፍል ሰራተኞች ብዛት በቂ ነው					
219	ለሌሎች ሰዎች በሆሲፒታሉ አንዲጠቀሙ እመክራለሁ					

APPENDIX IV .Regular outpatient waiting time check list
No M F Age_____

1. **Patient arrived at registration room & registration completed time _____**
2. **Payment for service taken time _____**
3. **Time screened by triage nurse ----------**
4. **Card is taken by runner to OPD clinic _____**
5. **Entering time to physician & consultation completed _____**

ተመላላሽ ህመምተኛ እና ክትትል ያላቸው/ የሰዓት መከታተያ ቅጽ

1. ምዝገባ ክፍል የደረሱበት እና የምዝገባ ስርዓት ያጠናቀቁበት ጊዜ _____
2. የክፍያ አገልግሎት የፈፀሙበት ጊዜ _____
3. በልየታ ክፍል ባለሞያዎች የታዩበት ሰዓት_____
4. ስምዎት ተጠርቶ በሥራተኛ ወደ ሀኪም የሄዱበት ጊዜ_____
5. ወደ ሀኪሙ ተጠርተው የገቡበት እና ከሀኪሙ ጋር ህክምና የጨረሱበት ሰዓት_____