A Pre-Post Interventional Study on Outpatient Satisfaction in St. Paul’s Hospital Millennium Medical College, Addis Ababa, Ethiopia

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A Capstone Project Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree Masters of Hospital and Health Care Administration.
Declaration

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

Student’s Name Nebat Toffik

Signature___________________

Place Addis Ababa University

Date of Submission October 2018

2. This project submitted for examination under approval as a university Advisor.

Advisor’s Name birhan Tasew

Signature___________________

Place Addis Ababa University

Date of submission October 2018

3. This project has been evaluated under my approval as a University examiner

Signature___________________

Place __________________________

Date of submission October 2018
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Finally, my special thanks to my husband, sons and Dr Rihana Abdurrahman with the whole family for helping me in all aspects. GEZAKUMULLAH kheyr.
Abbreviations

ART-- Antiretroviral Therapies
DB-Data Base
EHRIG—Ethiopian Hospitals Reform Implementation Guideline
ENT----Ear, Nose and Throat
FMOH---Federal Ministry of Health
HIV--- Human Immune Deficiency viruses
HPMI-Hospital Performance Monitoring & Improvement
MPH—Master of Public Health
O-PAHC-Outpatient –patient Assessment of Health care
OPD-Out Patient Departments
PS-Patient Satisfaction
QI—Quality Improvement
SPHMMC-St Paulo’s Hospital Millennium Medical College.
WHO—World Health Organization
Abstract

Introduction: Patient satisfaction is a primary means of measuring the effectiveness of healthcare delivery. Patients have Explicit desires for quality services when they visit health institutions. The care in the OPD is believed to indicate the quality of services of a hospital and is reflected by patients' satisfaction with the services being provided. Hence, this Study aimed to determine the level and determinants of patient satisfaction with outpatient department of St Paul’s Hospital millennium medical college A.A, Ethiopia

Problem Statement: --in St Paul’s Hospital Millennium medical college, out patient satisfaction score is below the standard which is 56% at pre-assessment period but the standard is above 80%.

Objective: -To improve out patient satisfaction of St Paul’s Hospital millennium medical collage from baseline of 56% in February 2018GC to 75% in June 2018 GC this 75% is decided after different literatures reviewed and also because of shortage of time and cost.

Methodology: -A pre-post interventional study was conducted at St. Paul’s hospital millennium medical college, from February to June 2018GC with sample size of 50 OPD patients both at pre and post intervention period and data was collected by using national hospital performance and monitoring manual checklist and all steps of strategic problem solving methods used and the real root causes of low outpatient satisfaction in OPD clinic were unclean toilet, low patient to pharmacy professionals communication on patient counseling & unavailability of medications founded accordingly, training was provided for pharmacy professionals on patient counseling and frequent cleaning of the toilet was undertaken as an intervention. And data was analyzed using SPSS version 20 IBM statistics. As result cleanliness of the toilet was increased from 26% to 56% and patient counseling of pharmacy professionals was increased from 40% to 62%. Satisfaction rate that was 56% before intervention was increased to 73% after intervention on conclusion a simple set of intervention could be significantly improving cleanliness of the toilet and communication of patient to pharmacy professionals. Longer follow up would be required to assess the sustainability of provider to patient communication, and cleanliness of the toilet.

Key Words: -patient, satisfaction, outpatient department, St Paul’s hospital millennium medical college.
1. Organizational Description

St Paul’s generalized hospital was built by the late Emperor HaileSilassie with the help of the German Evangelical Church in the year 1968 G.C. At the time, the hospital was established mainly to serve those economically under privileged population that providing services free of charge up to 75% of its patients. Until 2010, it used to be called St. Paul General Specialized hospital serving as a referral hospital in Addis Ababa under the Ethiopia Federal Ministry of Health (FMOH). In 2007, it started a medical school and through a decree of the council of ministers in 2010, it was established as a medical college and is currently named St Paul Hospital Millennium Medical College. St. Paul’s hospital millennium medical college has various professionals that included 479 physicians, 750 nurses, 1172 other clinical staff, and 898 administrative staff, making a total of 3362 staff. The hospital, is a 529 bed capacity hospital and. The 2009 annual average outpatient department attendance was about 314, 687 annual average admissions about 23,516 with an average length of stay of 5 days bed occupancy rate of 71.4%. SPHMMC provides health care through its different clinical departments which are General surgery, Internal Medicine, Obstetrics and Gynecology, Pediatrics, Emergency, Urology, Neurology, Orthopedics, Psychiatry, Ophthalmology, ENT, Dentistry and Maxillofacial surgery, Radiology, Anesthesiology, ART, (HIV care), Endoscopy, Physiotherapy, Laboratory and pharmacy, kidney dialysis and kidney transplantation. Its core services the medical care teaching & researches are still under the Federal Ministry of Health and governed by the board.

Vision: -To be a medical University with a most sought after medical center and a prestigious academic and research center in Africa by 2025.G.C

Mission: -To contribute to the provision of quality and affordable, promotive, preventive, curative, palliative and rehabilitative health care services; to train competent, compassionate ethical health professionals using integrated and competency based medical education and to perform need based research
2. Background of the Study

2.1 Introduction

Healthcare facility performance can be best assessed by measuring the level of patient’s satisfaction. Measurement of patients’ satisfaction is increasingly playing important role in the growing push towards accountability among healthcare providers, thus some view it as an established indicator of quality of care (1)

The Ethiopian federal ministry of health has been running a sector wide reform effort aimed at significantly improving the quality and the accessibility of the service at all levels of the country through implementing hospital reform guideline. One of the components of this guideline is improving service quality (2)

Outpatient department is the first point of contact of the hospital with patients and serves as the shop window to any healthcare service provided to the community. The care in the OPD is believed to indicate the quality of services of a hospital and is reflected by patients' satisfaction with the services being provided (3) Measuring patient satisfaction has become an integral part of hospital management strategies across the globe. Moreover, the quality assurance an accreditation process in most countries requires regular measurement of patient satisfaction (4,24). Patient satisfaction depends upon many factors such as: quality of clinical services provided, availability of medicine, behavior of doctors, generally patient satisfaction with hospital services highly depends on care components such as; convenience, courtesy, care quality, pocket cost and physical environment (5) Asking patients what they think about the care and treatment they have received is an important step towards improving the quality of care and knowing the predictors of patient satisfaction is very important to provide quality healthcare services and the utilization of health services in public hospitals (6). Hence, SPHMMC is undertaking different activities to improve the quality of health care service delivery. However, the capstone project to measure and intervene level of patient's satisfaction with the University Teaching Hospital outpatient health care services is not studied so far.
2.2 Problem Statement
Low outpatient satisfaction in St. Paul’s Hospital Millennium Medical College

Patient dissatisfaction is one of major observed challenges in St. Paul’s Hospital Millennium Medical College

Quality of health care is a sign of significant problems that affects Patient satisfaction. To measure the magnitude of the problem baseline assessments were collected and outpatient satisfaction showed 56%/which is low against the standard in which patient satisfaction is expected to be more than 80%.

2.3 Anticipated Out Come

This study provides evidence-based information to improve health service delivery and helpful to fill gaps which ultimately contribute to desirable quality of outpatient services in the hospital, thus improving its risk management. In addition, enhancing the level of patients' satisfaction and by identifying sources of patient satisfaction, an organization can address system weakness; and adds important information on system performance and Improving outpatient satisfaction from baseline of 56%/ in February to 75% in June 2018

2.4 Public Health Relevance

Measuring Consumer satisfaction with health care is important for various reasons. First, satisfied patients are more likely to maintain a consistent relationship with a specific provider. Second, satisfied patients are more likely to follow specific medical regimens and treatment plans. Third satisfied patients are less likely to be exposed to unnecessary expenses in private for profit clinics and will have better course and outcome.
3. Root Cause Analysis

A root cause analysis will help to identify the factors that cause the problem. Different techniques applied to identify the root causes of low outpatient patient satisfaction.

3.1 Methods Used to Identify the Possible Root Causes

Open focus group discussion was held with CEO, Medical director, OPD-director, Matron, OPD case team coordinator, Pharmacy head and Staffs, OPD case team coordinator, OPD Staffs (physicians, nurses, cleaners and runners), Compliant handler, Cleaners head, and Quality management officers. To find out what they think are the reason for the low outpatient patient satisfaction.

3.2 Possible Root Causes

A fishbone diagram was developed based on the verbal information obtained from involved bodies to identify multiple possible root causes of a single problem.

- Lack of awareness of pharmacy staff on the importance of counseling-due to lack of training
- Work overload because of shortage of pharmacy professionals
- Poorly monitored cleanliness because of lack of outsourcing system, shortage of cleaners and toilet.
- Poor communication of patients due to shortage of nurses
- Poor patient greeting system because of negligence of physicians
- Inconvenience hospital flow system because of construction
- Shortage of medications and pharmacy spaces.
Shortage of pharmacy professionals
---Poorly monitored cleanliness
lack of awareness of pharmacy professionals
--No scheduled training on patient counseling
for health workers
Shortage of cleaners
-Shortage of pharmacy space
Shortage of medications
-Inconvenience of hospital
--shortage of toilet
flow system
--unclean toilet

Fig 3.1 fishbone diagram
3.3 Verification for Major Gaps

To verify collected opinion of root causes, data were collected from SMT, OPD director, pharmacy head, nursing coordinator and cleaners head, observation of the environment, review of suggestion chart and national standard was used.

A. There is no training, seminars and morning session for pharmacy staffs to update themselves. this is included in real root causes.

B. Shortage of pharmacy professionals- about 58 professionals are assigned to pharmacy service, among them ten druggists are assigned in OPD dispensary at day program. The average patients served in outpatient pharmacy is 270. Making proportion of 1:27 and the standard is 1:48 pts. Which is above the standard (From HPMI guideline)

C. Shortage of space in pharmacy- there is five nonfunctional windows for counseling

D. Shortage of toilet: - There are eight toilets, two for staffs and six for patients, which is above the minimum standard.

   The standard is one (two) toilet for staffs, two for adult patients and one for child (According to WHO Guideline) so there are enough toilets in the OPD.

E. Shortage of cleaners: - there is only seven cleaners assigned for OPD and toilet, So the cleaning program for toilet was only two times per day this can cause improperly cleaned environment.

F. Shortage of medicines- due to shortage of foreign currency the hospital could not import medicines
3.4 Identified Real Root Causes after Verification of Major Gaps.

- Lack of awareness of pharmacy professionals on patient counseling
- Shortage of cleaners for frequent cleaning of the toilet
- Shortage of medicines
- Inconvenience of hospital flow system

Even though there were four real root causes, it is difficult to address all of them at the same time. So by discussing with SMT of the hospital by considering feasibility, cost, impact and time the most feasible real root causes addressed.
4. Literature review

Applying problem solving and quality improvement techniques to re-engineering hospital management system can be effective in improving key hospital functions in hospitals in low income countries despite Luke of resources. The patient satisfaction perspective of hospital care had gained more attention in recent years and studies have shown that patients are most satisfied with interpersonal interactions, such as staff-patient relationships (7).

In recent decades, determining the level of patient satisfaction has been found to be the most useful tool for getting patients’ views on how to provide care. Generally, patients are the best source of information on both quality and quantity of health care services provided and patients’ views are determining factors in planning and evaluating satisfaction (8).

Health scenario is changing at a faster pace all over the world. Patient satisfaction is one of the established yardsticks to measure the success of the service provided in the hospitals. Patient satisfaction is a highly desirable outcome of clinical care in the hospital and may be even an element of health status itself. A patient’s expression of satisfaction or dissatisfaction is a judgment on the quality of hospital (5).

As many researchers revealed, patient satisfaction represent a key indicator for the quality of health care delivery and this internationally accepted factor needs to be studied repeatedly for the good function of the health care system. Studies have shown that satisfied patients are more likely to comply with prescribed treatment and advice from doctors. (6, 9)

Studies conducted in Out Patient Departments (OPD) of different hospitals in Ethiopia have observed that failure to obtain prescribed drugs and supplies from the hospitals' pharmacies and inadequate information provision were the frequently faced problems affecting utilization leading to dissatisfaction (4, 10). Varied factors had implicated to the level of patient satisfaction including demographic variables, Patient-provider communication and toilet facilities. (11)

Study which was conducted in Indian armed hospital and four month data have been assessed with sample size of 120 patients and it Showed that level of satisfaction with sanitary facility was 45%. (12) The study done in Mwananyamalhospital in Tanzania cross Sectional studies was conducted two month data was
assessed and the level of patient satisfaction was 50%.(13) Studies conducted in Debrebirhan referral hospital, one month data was assessed and the result shows that 57.7% patient were satisfied by the overall service rendered in the hospital and also 69.6% satisfied with clean and tidy environment. (14)

Study conducted in Welaita University showed that the overall satisfaction level of the outpatient with OPD clinics health care services provided was 54.2%(15). The report of the studies conducted in Jimma University Specialized Hospital, Hawassa University Teaching Hospital, Amhara Region Referral Hospital which showed 77%, 80.1%, 61.9%. (16,17,18,). Study conducted in welitasodo hospital showed that 64.3% of the respondents were reported to have got all prescribed drugs from hospital pharmacy (15)

The responses of the patients regarding the satisfaction of the cleanliness in the OPD indicate that the patients were not at all satisfied with the cleanliness in the hospital. It can be seen that 86% of the respondents were not at all satisfied with the condition of cleanliness of the OPD (20)

Patient satisfaction is deemed to be one of the important factors which determine the success of health care facility. The real challenge is not getting ready with mere requirements, but also delivers services ensuring good quality. Thus, there is a need to assess the health care systems regarding patient satisfaction as often as possible (21). The responses of the patients regarding the satisfaction of the cleanliness in the OPD indicate that the patients were not at all satisfied with the cleanliness in the hospital. It can be seen that 86% of the respondents were not at all satisfied with the condition of cleanliness of the OPD (22)

Patient satisfaction is deemed to be one of the important factors which determine the success of health care facility. The challenge is not getting ready with mere requirements, but also delivers services ensuring good quality. Thus, there is a need to assess the health care systems regarding patient satisfaction as often as possible (23)

A recent study from Bangladesh reported that the most powerful predictor for client satisfaction with health services was provider behavior, especially respect and politeness (24) Studies which were conducted in India Super Specialty hospital and Welitasodo hospital had reported that 50% and 60% of the patients were satisfied with cleanliness of the hospital.(5, 15). Studies conducted in Jimma University Specialized Hospital and Tigray Zonal hospital 70% and 61% Of the respondents where did not gets all prescribed drugs from the hospital
pharmacy (16, 19) but in Welitasodo hospital and Nepal hospital 64.3% and 79% of the respondents were did gets all prescribed drugs from hospital’s pharmacy.(15,25).

The study on physical environment focused on the crowdedness, cleanliness signage and the conduciveness of the waiting areas to represent the physical environment at the clinic, the study conducted in Kenya (Kenyatta national hospital) showed that 33.7%, 68.8%, 79.8% of the respondents agree on the cleanliness of the toilet, easy to find ways around and Patients are told about medication side effects. (26)
5. Project objectives

5.1 General
To increase out patient satisfaction at St Paul’s hospital millennium medical collage from baseline of 56% in February 2018 GC to 75% in June 2018. This 75% was decided after different literatures reviewed in similar studies and also because of shortage of time and cost.

5.2 Specific
1. To assess how physical environment (examination room & toilet /bathroom) affects patient’s satisfaction at SPHMMC
2. To assess how communication affects patients’ satisfaction at SPHMMC
3. To assess relation of medication availability with patient satisfaction
6. PROJECT Methods and Materials

6.1 Study Area/setting
The capstone project was conducted at ST Paul’s hospital millennium medical college which is found in capital city of Ethiopia in Addis Ababa.

6.2 Project Design
Pre and post facility based interventional study

6.3 Project period
The study was conducted from February 2018 to June 2018GC

6.4 Source population
All patients visiting the hospital for outpatient services.

6.5 Study population
The study includes adult patients who came to the hospital for outpatient services, those who are present during data collection period.
6.5.1 Inclusion criteria: All adult patients whose age is greater than 18 years were selected.

6.5.2 Exclusion criteria: Patients who are chronically ill, impaired cognition, not able to speak & those unwilling to take part in the study was excluded.

6.6 Sample size

The study sample constitutes 50 respondents at pre intervention and 50 out patients at post intervention period. Sample size was taken from the HPMI manual; the total sample size was proportionately allocated for each service clinics depending on the average number of patients who visited the outpatient department clinics two week prior to the start of data collection. Then study participants were identified by purposive sampling method.

6.7 Data Collection tools and Procedures

In order to maximize the diversity, different age groups, both genders, different departments and different working days are included in the study.

The questionnaire used is taken from O-PAHC survey tool as per EHRIG PS protocol it contains 19 closed ended questions and socio-demographic data. (Annex 1). Ten data were collected in a day and totally 5 days required for data collection. Data was collected at the end of the OPD visit right before the patient leaves the outpatient area; The data was completed both by the patient themselves (written) and administered by data collectors who was transcribe patients answers (oral), and data was collected both at the morning and afternoon.

The questionnaire was prepared in English and Amharic, two clinical nurses were assigned as data collector who are not directly involved in OPD patient care.
6.8 Operational definition

Satisfaction- the extent of an individual's experience compared with his or her expectations.

Patient Satisfaction- The consumer’s response to the evaluation of discrepancy between prior expectation and the actual performance of the product as perceived after its consumption.

6.9 Data analysis procedures

The collected data checked manually for completeness and accuracy, and analyzed using SPSSIBM statistics version20.

6.10 Data quality management

The qualities of data insured through half day training of data collectors. Close supervision and immediate feedback reviewing each of completed questionnaires. Daily information exchange was a means used to correct problems during the course of data collection, consent was obtained and confidentiality assured to improve the quality of data. Data completeness checked throughout the data collection entry and analysis.

6.11 Study variables

6.11.1 Dependent variables: outpatient satisfaction

6.11.2 Independent variables: Age and sex of respondents, communication skill of (pharmacy professionals, physicians and nurses), cleanliness of toilet and examination room, availability of medications and hospital flow system.
6.12 Ethical consideration
Written consent obtained from school of public health, college of health sciences, Addis Ababa University.

St Paul’s hospital millennium medical collage informed about the purpose of the study and permission granted from SMT to conduct study on OPD patient satisfaction.

Verbal consent received from each client after explaining the objective of the study and Clients informed that refusal to participate the study does not affect their care.

6.13 Dissemination for Results
The findings of this study will disseminated to relevant bodies including FMOH, SPHMMC & A.A University, and the research report will have considered for publication.
7 Develop Alternative Intervention

1. Providing onsite training for pharmacy professionals on patient counseling. Because among provider to patient communication (physician, nurses, and pharmacy professionals) the gap of medication counseling result before intervention was low.

2. To avail essential medicines

3. To assign two extra cleaners for frequent cleaning of the toilet. (see table 1)
### Table 1: Decision Matrix for Comparison of Alternative Interventions

Each criterion has maximum score of five, minimum score=one, total score is calculating out of 20 points

<table>
<thead>
<tr>
<th>Alternatives Strategies</th>
<th>Impact on problem</th>
<th>Expense (cost)</th>
<th>feasibility</th>
<th>Time required</th>
<th>Total score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Provide onsite training for pharmacy professionals on medication counseling</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td><strong>18</strong></td>
</tr>
<tr>
<td>2. To avail medicines</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td><strong>11</strong></td>
</tr>
<tr>
<td>3. To assign two extra cleaners for frequent cleaning of the latrine</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>
1. **Onsite training for pharmacy on medication communication skill.**

**Impact:** Communication is very important for the exchange of ideas, to explain important side effects and avoid major complication of medications. So training is needed to update the staffs’ knowledge, skill, increase performance, and efficiency. It is also recommending training all health workers yearly.

**Expense:** on site training is not expensive and can easily affordable.

**Feasibility:** this is feasible because the training will have conducted at working organization with minimum time and cost.

**Time:** training will consider take only two days and can be performed within the implementation period.

2. **Assigning two extra cleaners for frequent cleaning of the toilet**

**Impact:** frequent cleaning can make a neat environment that is one of the indicators for patient satisfaction.

**Expense:** assigning two cleaners among already assigned in OPD, so only need minimum overtime for two cleaners that is easily affordable by the organization.

**Feasibility:** because neatness is one of the concern of the hospital.

**Time:** it can implement within the intervention period.

3. **Availing of Medicines**

**Impact:** medication is one of essential element for saving patient life.

**Expense:** now a day availing of all medications are difficult because of shortage of foreign currency.

**Feasibility:** availing of all medicines is not feasible for the organization because foreign currency become the problem of the country.

**Time:** it can’t have applied within the study period.
Discussion with Concerned Bodies

Based on the result of decision matrix and discussing with medical director, OPD director, OPD case team coordinator, pharmacy head and cleaners head to select from alternative interventions then the following best intervention was selected as the best intervention.
7.2 Selected Intervention (Best Intervention)

1. Onsite training for pharmacy professionals on counseling of medication and
2. Assigning two extra cleaners for frequent cleaning
8. Implementation Accomplishment

1. After preparing training proposal and assigning coordinator, Training was given for 32 staffs who are directly involved in outpatient pharmacy for two days in two rounds from April 26 and 27/2018 on the following topics:

- Definition of Patient Counseling
- Aim of Patient Counseling
- Quality of Good Counselor
- Steps and Contents of Patient counseling
- Outcomes of Patient counseling and
- Barriers of Patient Counseling

2. Rearrangement of cleaner’s schedule and out of seven cleaners two of them were assigned for frequent cleaning of the toilet as overtime work.

8.1 Indicators

Process indicators:
- Number of pharmacy professionals trained on counseling.
- Frequency of cleaning of the toilet

Outcome indicators:
- Increased the score of outpatient patient satisfaction
- Improved cleanliness of the toilet
9. Results

Fifty OPD health service users were requested to participate in the project study after completing their health care. Out of 50 all patients were voluntarily completed the questionnaire.

9.1 Socio demographic characteristic of study participants

Among those surveyed 28(56%) were males and 22(44%) females, at pre intervention and 23(46%) were males and 27(54%) females at post intervention and majority of participants were aged between 36-45yrs which is 17(34%) with the mean age of forty two (42.02), and std.deviation 12.24 at pre-intervention and majority of participants were aged between 18-25yrs which is 12(24%) the mean age of 39.32 and std.deviation 13.96 at post intervention. socio-demographic characteristics of respondents detail described in table below.

Table 2 Socio-Demographic Characteristics of Study Participants on Patient Satisfaction

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-25</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>26-35</td>
<td>13</td>
<td>26%</td>
</tr>
<tr>
<td>36-45</td>
<td>17</td>
<td>34%</td>
</tr>
<tr>
<td>46-55</td>
<td>8</td>
<td>16%</td>
</tr>
<tr>
<td>56-65</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>&gt;65</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>Max/min</td>
<td>65/22</td>
<td>70/18</td>
</tr>
<tr>
<td>Mean(S.D)</td>
<td>Mean 42.02 &amp; SD 12.24</td>
<td>Mean 39.32 &amp; SD 13.96</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>28</td>
<td>56%</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>44%</td>
</tr>
</tbody>
</table>

on with Nurses

Seventy-eight percent of respondents suggest nurses show respect and courtesy at pre intervention and 92% at post intervention.
Seventy-six percent of respondents suggest that nurses listen to them carefully at pre-intervention and 92% at post intervention.

About seventy-four percent of interviews perceived that nurses explain things in a way they understand at pre intervention and ninety-four percent at post intervention.

9.3 Patient Interaction with Physicians

About ninety percent of the interviewees perceived that the clinicians were treating them with respect and courtesy at pre intervention and 94% at post intervention respectively

Ninety percent of respondents perceived that the clinicians were listening to them carefully at pre intervention and ninety-two percent at post intervention respectively

About seventy-six percent of interviewees perceived that clinicians explain things clearly at pre intervention and ninety-percent at post intervention respectively

9.4 Physical Environment

About 34% of patients said that outpatient’s do not kept clean at pre intervention and 26% at post intervention respectively.
About 74% of respondents described that the latrine was unclean at pre intervention on the contrary, after implementing theselected intervention the result changed 44% at post intervention respectively.

From these results, it can understand that the success registered after the intervention implemented was because of assigning of two extra cleaners for frequent and continuous cleaning of the toilet. The hospital recommended for sustainability of the program and out sourcing of the service.

9.5 Patients’ Assessment of Medication Communication and Availability

From a total of respondents those who were given new medicine were informed why the medication was intended for, and their side effects were 32(64%) and 20(40%) at pre intervention respectively. After implementing the selected intervention, it become improved to 45(90%) and 31(62%). This implies that the success registered after the intervention implemented was onsite training of pharmacy professionals on patient counseling. The drug availability was decreased to 20(40%) from twenty-four(48%) this is because of shortage of LC in the country.

9.6 Rating of satisfaction with scale of 0 (worst) to 10 (best)

In rating satisfaction score the highest frequency in pre-intervention assessment was 5-7 which was 32(64%) where as in post intervention the highest frequency also falls in 5-7 which was 25(50%) out of the total.
patient interviewed. The minimum/maximum score was 2/9 and 3/10 in pre and post intervention respectively. The mean score satisfaction before intervention was 5.6 and after intervention 7.3 with a standard deviation of 1.73 and 1.61. The selected intervention brought a significant change on OPD patient satisfaction of St Paul’s hospital. See table 3

Table 3. Rating of satisfaction with scale of 0 (worst) to 10 (best)

| Total patient interviewed | Pre intervention N | % | Post-intervention N | % |
|----------------------------|--------------------|---|---------------------|--|---|
| 55                         | Status of patient satisfaction rating | <5 | 11 | 22% | 2 | 4% |
|                            |                    | 5-7 | 32 | 64% | 25 | 50% |
|                            |                    | 8-10 | 7 | 14% | 23 | 46% |
| Minimum score              |                    | 2 | 3 | |
| Maximum score              |                    | 9 | 10 | |
| Mean                       |                    | 5.6/10 | 7.3/10 | | |
| SD                         |                    | 1.73 | 1.61 | |
Summary on Major Gaps at Pre and Post intervention results

10. Discussion
The pre-intervention result of this study showed that around half of the patients (56%) were satisfied with the services they received while (73%) were satisfied post-intervention. The pre intervention level of satisfaction report is comparable with the studies conducted in Debrebirhan referral hospital and Welaita University, which showed 57.7% and 54.2% respectively. (14, 18). While post-intervention score is higher than both studies. However, the result of studies conducted in Jimma University Specialized Hospital and Hawassa
University Teaching Hospital were greater than the post intervention score, which was 77%, and 80.1% respectively. Kenya study on satisfaction showed 64.9% of patients were satisfied which is again higher than the pre-intervention study. The higher post intervention score indicate that the hospital has a potential to improve patient satisfaction with proper intervention and the capstone approach that is new for our country and the intervention area selected all has an impact on the difference.

The physical environment consists OPD examination room and toilet cleanliness. Sixty six percent of the respondents reported that physical environment of study hospital were clean before intervention and this finding is lower than the study conducted at Debrebirhan referral hospital which is (69.9%) (14) But it is greater than the study conducted in India Super Specialty hospital, which is (50%) (14,5) .And 86% of participants reported that physical environment of the study hospital were clean at post-intervention, which is higher than both hospitals.(14,5).in study hospital About 74% of respondents described that the latrine were unclean at pre intervention this finding is greater than the study conducted in Kenyatta hospital showed that 60.4%(26) on the contrary, after implementing the selected intervention theresult changed to 44% at post intervention respectively. Which is better than the study of Kenyatta hospital.

Cleanliness of outpatient clinic being understood as quality indicator of a hospital and appropriate utilization of human resource has both contributed to the improvement of post-intervention cleanliness.

Forty-eight percent and 44% of respondents reported to have all prescribed drugs from hospital pharmacy at pre intervention and post intervention respectively. The availability of the drug has decreased at post intervention; this is because of Shortage of LC in the country. This finding is lower than similar studies conducted in welitasodo hospital, Jimma University Specialized Hospital, Tigray Zonal hospital and Nepal hospital indicated that 64.3, 70%, 61% and 79% respectively. (15, 16, 19, 25). The less drug availability as compared to other hospitals might indicate lack of sustainable supply of medication throughout the year and different timing of the study might explain it. Additionally, SPHMMC is a very huge hospital and the demand supply might have discrepancy.

Of the total respondents’ medication side effects were told for 20(40%) at pre-intervention and after implementing it increased to 31(62%). Similar studies conducted in Kenyatta hospital showed 79.8%. (26) Which is higher than both pre and post intervention of this study. Post intervention improvement is due to
the intervention which is re-orienting pharmacy professional on the need for proper counseling on medication side effect SPHMMC still need another additional intervention, strong monitoring and evaluation of medication communication.

11. Strength of the study

The strong side of this study was pre-prepaid designed tools were developed in FMOH used to measure the extent of the problem aggregated data from different sources were collected and used to assess the problem was considered as the strong side of this study.

The staff understood new knowledge about strategic problem solving methods during focus group discussion

12. Limitation of the Study
The finding of this study might have subjected to social desirability bias because the respondents were interviewed in the hospital compound. In addition, patients may experience a relatively short-lived satisfaction immediately after their consultation than they do afterwards.

Other limitations are short evaluation period for observation of sustainability of intervention and the tools used to measure the problem excluded waiting time and educational status.

13. Conclusion

The findings of this capstone project suggest that a simple set of intervention on patient to provider communication and cleanliness of physical environment could be accomplished to significantly improve OPD patient satisfaction. Simplicity and inexpensiveness of these project results that shows a well-planned system intervention can improve patient satisfaction of outpatient department.

This project finding indicates that applying problem solving to outpatient department can be effective in improving patient satisfaction and quality care.

Patients were described the side effects of medication in a way they understood and patient’s evaluation on uncleanliness of latrine/bathroom were changed from previous 40% to 62% and 74% to 44% after the intervention was done. This results change in outpatient satisfaction from 56% to 73% improvements after intervention.
Availability of prescribed drugs, cleanliness of toilet, communication of health service providers (Physicians, nurses, and pharmacy staff) are of key importance in patient satisfaction. So improving provider communication, availability of medication and neatness of physical environment and toilet may be crucial in enhancing patient satisfaction.
14. Recommendations

For federal ministry of health (FMOH)

FMOH Should look for different mechanisms to enable the hospitals keep adequate stock of essential drugs and supplies.

FMOH should include weighting time and educational status of respondents in HPMI survey protocol tool.

For Hospital senior management members

longer follow-up would be required to assess the sustainability of the provider to patient communication; Intensive and continuous training for the health workers on proper communication should be given.

It is necessary to conduct further interventional study and assessment of other components of factors to cause for patient dissatisfaction must study.

Service Providers

They should give attention to ensure good interactions with patients to improve the level of satisfaction of patients
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