

ADDIS ABABA UNIVERSITY, SCHOOL OF GRADUATE
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Project title: - Improving outpatient Satisfaction

By: - Tesfaye Amensisa

Name of advisors: - 1. Dr. Mesfin Addisse (MD, MPH)

2. Professor Elizabeth Bradley (PhD)

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Declaration

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

Student's Name **Tesfaye Amensisa**

Signature _____

Place **Addis Ababa University**

Date of submission **May____, 2012**

II. This thesis has been submitted for examination under my approval as a university Advisor.

Advisor's Name **Dr. Mesfin Addisse (MD, MPH)**

Signature _____

Place **Addis Ababa University**

Date of submission **May____, 2012**

III. This thesis has been evaluated under my approval as a university examiner.

Examiner's Name: _____

Signature_____

Place **Addis Ababa University**

Date of submission **May____, 2012**

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Abbreviations

ALOS	- Average length of stay
BPR	- Business process re-engineering
EHRIG	- Ethiopian Hospital Reform Implementation Guideline
FMOH	- Federal Ministry of Health
HMIS	-Health management information system
I-PAHC	-Inpatient Patient Assessment of Health Care
OPD	- Outpatient Department
O-PAHC	- Outpatient - Patient Assessment of Health Care
ORHB	- Oromia Regional Health Bureau
KPI	- Key performance indicator
WHO	- World Health Organization

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Abstract

Measuring patient experience towards health care services is important for improving quality of care. Asking patients to rate the service provided, availability of medicines, cleanliness of working environment and the extent of communication is an important step towards improving the quality of care.

The Objective of this project is to improve the status of outpatient satisfaction at Goba Hospital from the current 7.4 average score to an average score of 8.4 at the end of April 2012.

Methods: Source population was patients those come to the hospitals that fulfill inclusion criteria, Study population was those sampled (selected) during data collection period and study unit was a patient who visits the hospital.

The total sample size was 50 patients. Systematic random sampling technique used to select patients to survey.

Two twelve grade-completed data collectors were employed to collect the data and a diploma graduate supervisor was recruited to facilitate the data collection process.

Data were analyzed using excel and presented by tables and graphs. Measurements of central tendency like mean and measurement of dispersion (standard deviation) were used and bivariate and multivariate analysis were used to measure strengthen of association.

Result: - After the intervention, the overall satisfaction score was 8.6. Eighty present of the respondent rated as strongly agree that the latrine and bathrooms were clean. 86% and 76% of the respondent reported that the staff told them the side effect of medication and the staff told them the symptoms to lookout after the patient left the hospital.

Cleanliness of latrine and bathrooms and someone discussed the patient what symptoms to lookout after the patient left the hospital are predictors of patient satisfaction in pre-intervention at p-value and AOR {0.021, 0.014] and [0.072, 0.079 and in post intervention at p-value and COR {[0.05, 0.008] and [0.38, 0.022]} respectively after adjusting with confounder.

Discussion: - Improving medication communication gaps and cleanness of latrine/ bathroom change the outpatient satisfaction from 7.4 score to 8.6 score. Hence, cleanliness of latrines and bathrooms and medication communication are predictors of patient satisfaction.

Background Information

Organizational Description

Goba Hospital is located in Oromia National Regional state, Bale Zone; 450 km southwest of the capital, was first established as a small clinic in a resident house in 1947E.C. It took the form of a hospital in its current location when it started its service with only two Cuban doctors. It remained the only hospital in the zone for nearly twenty-five years.

Since its inception, the hospital has undergone several expansions in infrastructure, service provision, staff number and quality; including the expansion project carried out since 2010 by the Regional Health Bureau.

Currently the hospital is providing promotive, preventive, curative and rehabilitative services for an estimated population of 850,000 with 105 beds, 2 specialists, 10 General Practitioners, 8 Health officers, and 65 nurses, 8 pharmacists/Druggists, 8 Laboratory technologists/technician totaling 101 technical and 81 supportive staff members. The average length of stay (ALOS) for the last three months was 3.6 days.

The hospital provides inpatient services including: Operation, Surgical, Medical, Pediatric, Obstetrics/Gynecologist, outpatient services including, Maternal and child health, Expanded program of immunization, Voluntary counseling and testing service, Anti retro viral therapeutic service, Tuberculosis and Leprosy treatment and prevention service, Dental care/Treatment, Psychiatric special Clinic, Laboratory, Pharmacy, Radiographic services from outpatient services.

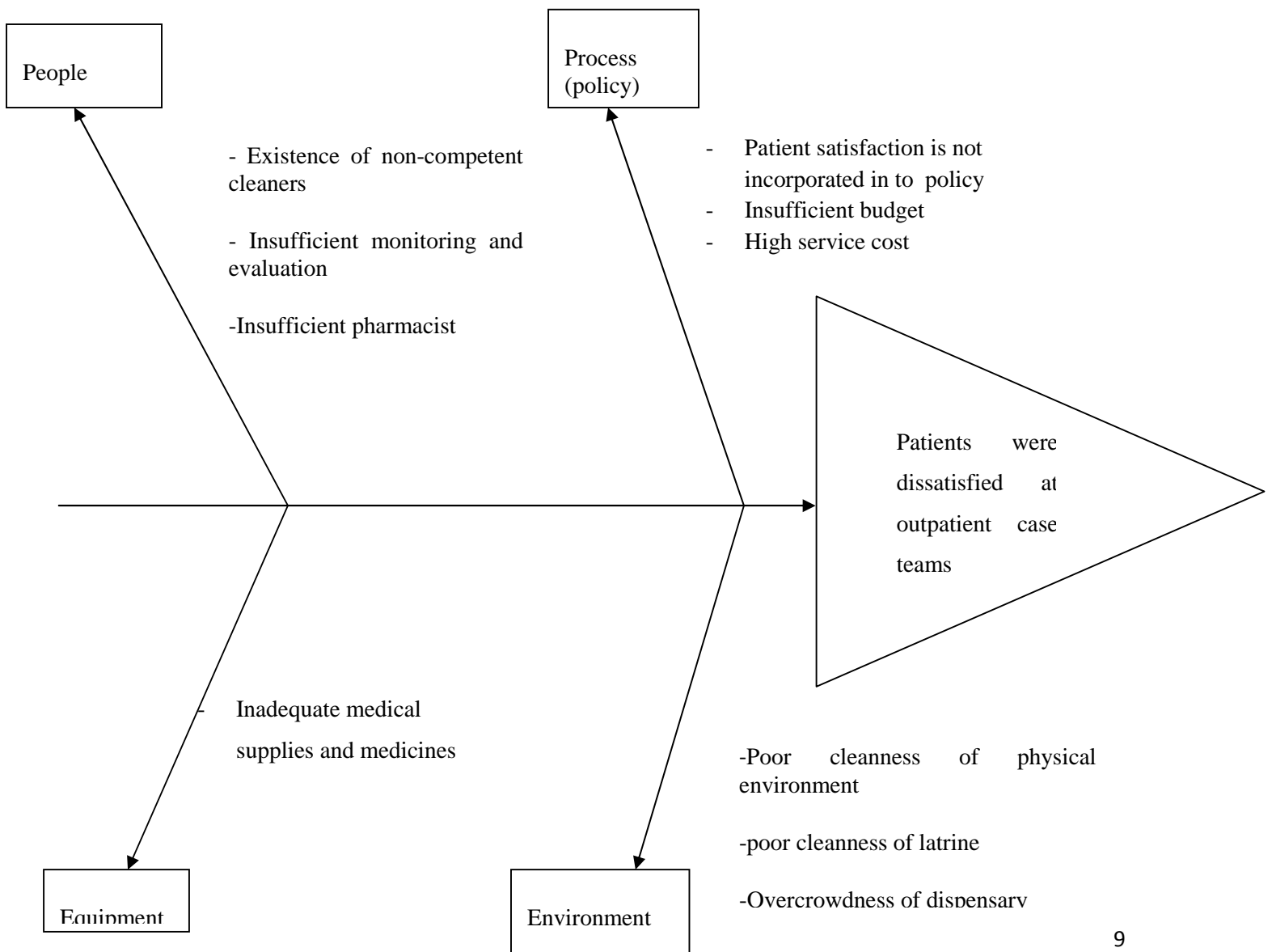
Goba Hospital is one of the Oromia Regional State Hospitals implementing Business Process Re-engineering (BPR), Health Care Financing, Blue print (Ethiopian Hospital Reform Initiative Guidelines) and Health Management Information system (HMIS). The current EHRIG standards met at Goba hospital is 67% and O- PAHC survey result is 7.4 score.

Statement of the Problem:

To state the problem I conducted pre-assessment of Outpatient-Patient Assessment Health Care (O-PAHC) satisfaction survey by using standardized questionnaires.

The average O-PAHC survey result score 7.4, and it identifies that there were communication barriers in explaining the advantage and side effect of medication and poor cleanliness of latrines and bath rooms.

Root causes: - Using fishbone diagram the causes of the problem identified as follow:



From the survey result of O-PAHC, the following were priority problems and need intervention:

1. Medication communication gap;
 - 36% of patients explained that they were not described the side effects of medication in a way they understood
 - 50% of the patients explained that they were not described the symptoms to look out for after they left the hospital.
2. Poor cleanliness of latrine and bath-rooms;-
 - 40% of the patient explained that the cleanliness of latrine/ bath room were not good

Indicators

Process indicators

1. Percentage of patients that had the possible side effect of medication explained to them.
2. Percentage of patients that had symptoms to lookout for after they left the hospital explained to them.
3. Cleanliness score of latrines/bath rooms on O-PAHC questionnaires.

Output indicator

1. The change in the average outpatient satisfaction score at the end of April 2012.
2. The change in the % of customers that would recommend outpatient department to friends and family

Literature Review

Communication barriers, including lack of warmth and friendliness on the part of the doctors and nurses failure to take into account the patient's concerns and expectations, lack of clear cut explanation concerning diagnosis and causation of illness, and excessive use of medical jargon have been found to decrease patient satisfaction [1].

Insufficient medication and other supplies is also a major source of patient dissatisfaction. Overcrowdness of patients' at pharmacy department due to insufficient staff is also another source of dissatisfaction at outpatient department. Poor cleanness of outpatient department and its' toilet is also a major source of outpatient dissatisfaction [2].

Providers who appear fully attentive, avoid distractions, smile, and sit on the same level as the patient all convey an important message of caring, listening, empathy and patient enablement also plays a significant role in patients' overall satisfaction [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 registration time and the number of staff at the counter. 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/ complete the services [4, 5].

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 [3].

A study done on outpatient satisfaction at selected government health facilities conducted between June and September 2004 in major cities of Ethiopia indicated that, study participants who belonged to the age group 20-24 and 35-49 were 52% and 46% satisfied on health care providers' characteristics [3, 6, 7].

A study conducted by Lemessa Ol-jira and Solomon Gebre-Selassie in Jimma University specialized Hospital showed that the percentage of users satisfied with health care services increased progressively with increase in age [8].

Patients were more likely to be satisfied with the medical staff if they had the following attributes: i.e. medical staff were competent, polite and used a simple language that patients could easily understand, diagnosed correctly, listened to their problems, respected their privacy, and thoroughly checked them before writing prescriptions. Patients were more likely to be satisfied with the nursing officers if they showed the following attributes ‘They were competent, polite, caring, listened to their problems and involved them in their care. The attributes in this dimension were ‘Speed of a required hospital admission, well-organized admission process, and admission to room/ward or bed within 30 minutes [9].

Cleanliness has a significant impact on patient satisfaction. Patients are entitled, and expect, to be treated and cared for in pleasant, clean, tidy and safe environments. There is also increasing evidence that the quality of the physical environment has an impact on clinical outcomes for patients Staff behaviors’ that supports high standards of cleanliness is vital for addressing and preventing healthcare associated infections. Cleanliness is an important performance indicator that can influence patient satisfaction. A study done in Ethiopia showed that satisfaction with cleanliness ranged from 76.50% to 90.57% and relatively more explanatory variables were found to be influencing the aspects of cleanliness (cleanliness of waiting place, examination room and medical equipment) [6, 10].

Availability of prescribed medications and proper communication on medication in the hospital has also role on patient satisfaction. A study from Ethiopia indicated that more than one-third of the patients did not get the medications prescribed in the hospital pharmacies. Failure to find the prescribed drugs in the hospital was associated with dissatisfaction. Satisfaction was significantly associated with undergoing investigations and getting the prescribed medications from the hospital pharmacy. From all prescriptions, only 33.3% secured medications from the hospital pharmacy. Study conducted in Harari region 2006 showed that overall satisfaction is also found to be related to the availability of drugs within the facility [3, 7, 11].

A study conducted in Jimma university specialized hospital indicated that more than 98% of the respondents reported that they were well explained about the disease nature, the need for regular follow up and about the drugs by health professionals throughout the sessions. Concerning waiting times, 80%, 100% and more than half reported that they served within 15 minutes at the card room, the pharmacy and at ART, respectively. This is consistent with a report from London where 47% of the respondents stated that their doctors saw them within 15 minutes. The above positive responses by clients in getting appropriate information about their disease, treatment and waiting time are encouraging for the clinic staff for further improvement of the services [7].

Recognition of patient's opinions and their involvement in their medical decisions were rated mostly as fair and good suggesting relatively low level of clients' involvement in decision-making. This could be because of the small number of staff in the clinic. Similar result was reported from a study in England. A study conducted in Harari region 2006 showed that patient satisfaction was affected by provider's behavior towards the patient [7, 12, 13]

A study conducted by Lemessa Ol-jira and Solomon Gebre-Selassie in Jimma University specialized hospital showed that the percentage of users satisfied with health care services decreased with increase in educational status of interviewee. There was also a significant association between satisfaction and perceived length of time spent with health care provider for physical examination and consultation, with longer time spent associated with higher satisfaction level [8].

OBJECTIVE

General objective:

To improve outpatient satisfaction at Goba Hospital from an average score of 7.4 to an average score of 8.4 by the end of April 2012.

Specific objective:

1. To improve the level of outpatient satisfaction at Goba hospital
2. To intervene on factors those hypothesized to influence outpatient satisfaction at Goba Hospital
3. To determine the level of outpatient satisfaction at Goba Hospital after the intervention

METHODS AND MATERIALS

Study Area and Period

The study conducted in Bale zone Goba general Hospital, from February 1,2012 up to March 30, 2012.

Study Design

A pre-post facility based interventional study conducted.

Study Sample

All patients those come to the hospitals that fulfill inclusion criteria during data collection period at Goba hospital.

Inclusion /Exclusion Criteria

Inclusion Criteria

All adult patients whose age greater or equal to 18 years

Exclusion criteria:

Patients who were chronically ill, psychiatric and not able to speak and see.

Sample Size and Sampling Techniques

Sample size

The sample size for study was 50 patients. The survey collected over a period of two weeks. 5 surveys were collected in one day and totally 10 working days required for data collection.

Sample size calculated using the formula:

$$N=2\left[\frac{z}{2} + z \right]^2$$

$$N=2\frac{[(1.96+0.84)*1.8]^2}{1}$$

1

It gives, 50.8=51 per/group

-difference in mean (7.4 and 8.4) =1

Power requirement to 80 % (0.84)

=Estimated SD (1.8) for patient satisfaction

Sampling Technique

The study hospital selected purposely due to resource constraints. Systematic random sampling technique used to select study units. In average our hospital patient load for a month is 6000, hence on average we have 273 patients per day. Hence, every 54th patient was involved in this study.

Study Variables

Dependent Variables

1. The dependent variable of this study was outpatient satisfaction

Independent Variables

1. Sex
2. Age
3. Medication communication score
4. Cleanliness score of latrines and baths

Data Collection tools and Procedures

The quantitative data was collected using questionnaire prepared by addressing the following important variables:-

- General (Socio-economic and demographic) data
- Questions
- Response categories
- Instructions

Most of items in the questionnaires adopted from Ethiopian Hospital Reform Implementation Guideline (EHRIG) standard document. The questionnaire was given to those who can read, understand and write the response but for those who could not read and write the data collector asked the question and completed their responses.

Twelve grade-completed people employed to collect the data and diploma graduate supervisor recruited to give the necessary support to data collectors.

Data Quality Control

The survey questionnaires were pre-tested. The questionnaires translated to Afan Oromo language and then back to English by different persons to ensure its consistency. Appropriate training was given to selected data collectors and supervisors at the same time and place.

Data Analysis

Data analyzed using Excel. Frequencies and percentages used to describe different variables. Measurements of central tendency mean and measurement of dispersion (standard deviation) were used and to measure strengthen of association bivariate and multivariate analysis was used.

Operational Definition

Patient satisfaction: The consumer's response to the evaluation of discrepancy between prior expectations and the actual performance of the product as perceived after its consumption. Clients score satisfaction status from 1 to 10.

Time taken to complete their services: Duration of time the patients spend to complete their treatment at OPD.

Consultation duration- Duration of time patient spent during examination.

Providers' technical competency: It is patients' opinion of their health care provider technical competency.

Client-provider interaction: It is an exchange of information between healthcare provider and respondent about consultation, treatment, and diagnosis by using various approaches such as dignity, respect and greeting.

Patient or respondent: - A person who are get help, advice and treatment from providers.

Privacy: Physical and psychological opinion of the respondent not exposed to other persons by healthcare provider during examination or treatment.

Patient satisfied: - if satisfactions score greater than six

Patient dissatisfied; - if satisfaction score less than or equal to six

Latrines/bathrooms clean: - if the study participants strongly agree or agree on the cleanness

Latrines/bathrooms not clean; - if the study participants strongly disagree or disagree on the cleanness

Ethical Consideration

Informed consent received from each client after explaining the objective of the study. Patient's name not written and confidentiality maintained throughout the study. Clients were told that refusal to participate does not affect their care. The data collectors explained that respondents could be drawn from the study at any time they want.

Dissemination of result

The result obtained after the study and intervention taken will be disseminated through different mechanism.

Intervention

Strategy chosen

Generate alternative strategies

The following interventions considered as possible strategies for improving patient satisfaction at outpatient case team;

1. Expansion of one addition dispensary unit
2. Recruitment of one additional pharmacist
3. Out sourcing of OPD Cleaning service

Perform comparative analysis of alternatives

Medication communication gap and poor cleanness of latrine and bath were priority problems hence in order to improve outpatient patient satisfaction at Goba Hospital the following were the chosen options

<i>Problem</i>	<i>Less patient satisfaction average score in the outpatient department of Goba Hospital</i>
Option 1	Expansion of one addition dispensary unit
Option 2	Recruitment of one additional pharmacist
Option 3	Out sourcing of OPD Cleaning service

These three options were evaluated using quantitative decision matrix as well as conducting sensitivity analysis.

Quantitative options appraisal:

Implementation option	Evaluation criteria					Total score
	Annual expense	Political feasibility	Impact on productivity	Time required		
1. Expansion of one additional dispensary unit	3	5	5	4	17	
2. Recruitment of one additional pharmacist	4	4	3	5	16	
3. Outsourcing of OPD Cleaning service	4	4	4	2	15	

Sensitivity test: - Expansion of additional dispensary unit could provide space for counseling of patients' about the advantage, utilization and side effect of medicines. If we recruit pharmacist with availing sufficient space the pharmacist could not get space to counsel the patients about the side effect of medication, symptoms to lookout after they left hospital and difficult to improve medication communication gaps, and medication communication is priority problem than cleanliness of latrine and bathrooms hence it has to get priority intervention. Besides, we outsourced the cleaning service in order to improve the cleanness of latrines and baths.

The best strategy selected

To address the above problem: Expansion of one addition dispensary unit was the best intervention, because it scores 17 marks, which was the first using quantitative balanced score card and true with sensitivity test. Besides, in order to solve the scarcity of human power and cleanliness of latrines and bathrooms one Pharmacist was recruited and cleaning service outsourced respectively.

Implementation Accomplishment

Ser. No.	Planned activities	Implementation plan	Accomplishment time and responsible person
1	Preparation of capstone proposal and sending 1 st draft for respective advisors	October 10, 2011	Capstone proposal was prepared and submitted to respective advisors as per schedule
2	Getting feedback from advisors and submission final draft for approval from AAU college of public Health and Medical Sciences	October 30, 2011	Advisors gave feedback on time AAU approve the proposal and provide finance for the implementation as per the schedule
3	Implementing the selected intervention	November 30, 2011	The selected intervention was implemented but there was dalliance in time table (mid of March, 2012)
4	Conduct post assessment	February 30, 2012	Post assessment was done at the end of March, 2012
5	Conduct data entry, analysis and report writing	March 30, 2012	Data entry, analysis and 1 st draft writing was finalized at April 3,2012
6	Submission of the 1 st draft of the report	April 10, 2012	The 1 st draft will be submitted on march 3,2012
7	Submission of final draft and ready for defense	June 10, 2012	May 5, 2012

Results

Socio-demographic characteristics of study samples

Fifteen patients were interviewed yielding a response rate of 100%, among them 28 (56%) were females. Twenty-eight (56%) of them were found within age categories of 18 to 35 at pre-intervention but 22 (44%) at post intervention. The mean age is 35.84 and standard deviation is 11.64 at pre-intervention but 37.22 and 11.21 at post-intervention. Socio-demographic characteristics of the respondent showed in table 1 below.

Table 1:- Socio-demographic characteristics of study participants in Oromia National Regional state, Goba Hospital, April 2012

Socio-demographic Variables	Pre assessment		Post intervention	
	N	%	N	%
Sex				
Male	22	44%	23	46%
Female	28	56%	27	54%
Age				
18-25	15	30%	6	12%
26-35	13	26%	18	36%
36-45	9	18%	16	32%
46-55	5	10%	7	14%
56-65	8	16%	2	4%
>65	0	0%	1	2%
Mean (S.D)	35.84(11.64)		37.22(11.21)	

Table 2:- Socio-demographic description of pre-post interventions

Variable	Pre (N=50)	Post (N=50)	p-value
Age			t = 6.736 DF= 98 Critical value 3.84, thus not significant
Min – Max	18 - 60	18 – 73	
Mean \pm SD	35.84 \pm 11.64	37.22 \pm 11.21	
Sex			Chi – square =0.086 DF= 1 Critical value = 3.84 Thus not significant
Male	22(44%)	23(46%)	
Female	28(56%)	27(54%)	

Interaction with the Health Care Provider

Twenty-nine (58%), 33 (66%) and 33 (66%) of the respondents’ rated as strongly agree on the question nurse treat the patient with respect and courtesy, nurse listened the patient carefully and nurses explained things in a way the patient understood respectively. Thirty-seven (74%), 37 (74%) and 42 (84%) of the respondent rated as strongly agree on the question doctors treat the patient with respect & courtesy, doctors listened the patient carefully and doctors explained things in a way the patient understood respectively. The overall interpersonal interaction rating of health care providers (Nurses and Doctors) improved in post intervention as compared to pre intervention. See **Table 3** below interaction with health care providers:

Table 3:- Interpersonal interaction with healthcare provider of study participants in Oromia regional state, Goba Hospital, April 2012

Interaction with Health care provider variables (N=50)	Pre Assessment result		Post Assessment result	
	N	%	N	%
1. Nurse treat the patient with respect and courtesy				
- Strongly disagree	1	2%	1	2%
- Disagree	3	6%	0	0%
- Agree	24	48%	20	40%
- Strongly agree	22	44%	29	58%
2. Nurse listened care fully				
- Strongly disagree	1	2%	2	4%
- Disagree	1	2%	0	0%
- Agree	28	56%	15	30%
- Strongly agree	20	40%	33	66%
3. Nurses explained things in a way I understood				
- Strongly disagree	2	4%	1	2%
- Disagree	3	6%	0	0%
- Agree	25	50%	16	32%
- Strongly agree	20	40%	33	66%
4. Doctors treat the patient with respect & courtesy				
- Strongly disagree	0	0%	0	0%
- Disagree	1	2%	0	0%
- Agree	26	52%	13	26%

- Strongly agree	23	46%	37	74%
5.. Doctors listened me care fully				
- Strongly disagree	0	0%	0	0%
- Disagree	2	4%	1	2%
- Agree	26	52%	12	24%
- Strongly agree	22	44%	37	74%
6.. Doctors explained things in a way I understood				
- Strongly disagree	0	0%	1	2%
- Disagree	3	6%	0	0%
- Agree	26	52%	7	14%
- Strongly agree	21	42%	42	84%

Institutional aspects and pattern of visit of patient

Forty-eight (96%) of the respondents reported that they distinguish between doctors/health officers and nurses. Thirty-eight (76%) of the respondent rated as strongly agree that the outpatient department was clean. Forty (80%) of the respondent rated as strongly agree that Latrine and bathrooms was clean. Thirty-nine (78%) of the respondents described that it was easy to move in the hospital. See **Table 4** below institutional aspects and patterns of visit of the patient:

Table 4:- Institutional aspects and pattern of visit of patient at Oromia regional state Goba Hospital, April 2012

Institutional aspects and pattern of visit of patient with health care provided (N=50)	Pre result	Assessment N %	Post Assessment result	Post Assessment result N %
1. Distinguish between Doctors/Health officers and Nurses				
- Yes	35	70%	48	96%
- No	15	30%	2	4%
2. The outpatient department was clean				
- Strongly disagree	2	4%	0	0%
- Disagree	7	14%	2	4%
- Agree	24	48%	10	20%
- Strongly agree	17	34%	38	76%
3. Latrine and bath rooms was clean				
- Strongly disagree	4	8%	2	4%
- Disagree	16	32%	4	8%
- Agree	15	30%	4	8%
- Strongly agree	15	30%	40	80%
4. Easy to move in the hospital				
-Yes	38	76%	39	78%
-No	12	24%	11	22%
5. Payment system				

-Pay	40	80%	40	80%
-Fee waived	10	20%	10	10%
6. Payment is expensive				
-Yes	14	28%	8	16%
-No	36	72%	42	84%

Table 5:- Institutional aspects and pattern of visit at Goba Hospital pre-post intervention

Variable	Pre (N=50)	Post (N=50)	P-value
Latrine and bath room clean			Chi – square = 18.8181 DF= 98 Critical value 3.84, thus significant
Yes	30(60%)	44(88%)	
No	20(40%)	6(12%)	
Easy to move around the hospital			Chi – square =0.11655 DF= 1 Critical value = 3.84 Thus not significant
Yes	38(76%)	39(78%)	
No	12(24%)	11(22%)	
Payment Expensive			Chi – square =5.357 DF= 1 Critical value = 3.84 Thus significant
Yes	14(28%)	8(16%)	
No	36(72%)	42(84%)	

Medication communication

Forty-five (90%) of the respondents reported that the staff told them for what the medication was used. Forty-three (86%) of the respondents reported that the staff told them the side effect of medication. Thirty-eight (76%) of the respondents reported that someone discussed with them the symptoms to lookout after the patient left the hospital. In general, there is a great improvement in medication communication scores, see **Table 6** below:

Table 6:- Medication communication of study participants in Oromia regional state Goba Hospital, April 2012

Medication communication (N=50)	Pre Assessment result		Post Assessment result	
	N	%	N	%
1. I was prescribed new medication this vist				
-Yes	37	74%	44	88%
-No	13	26%	6	12%
2. The staff told me for what the medicine was				
-Yes	37	74%	45	90%
-No	13	26%	4	10%
3. The staff told me the side effect of medication				
-Yes	32	64%	43	86%
-No	18	36%	7	14%
4. Someone discussed me what symptoms to lookout for I left the hospital				
-Yes	25	50%	38	76%
No	25	50%	12	24%
5. Did you get all medications prescribed				
-Yes	38	76%	43	86%
-No	12	24%	7	14%

Table 7:- Medication communication at pre-post intervention

Variable	Pre (N=50)	Post (N=50)	P-value
The staff told the patient for what the medication was			Chi – square = 2.222 DF= 98 Critical value 3.84, thus not significant
Yes	37(74%)	45(90%)	
No	13(26%)	5(10%)	
The patient explained medication side effect			Chi – square =19.169 DF= 1 Critical value = 3.84 Thus significant
Yes	32(64%)	43(86%)	
No	18(36%)	7(14%)	
The staff discussed symptoms to lookout after left hospital			Chi – square =18.53 DF= 1 Critical value = 3.84 Thus significant
Yes	25(50%)	38(76%)	
No	25(50%)	12(24%)	

Status of patient satisfaction

Forty-three (86%) of the respondents scored the satisfaction status more than eight and the mean satisfaction score at pre-intervention was 7.4 but at post intervention it was changed to 8.6. Forty-five (90%) of the respondents reported that they could recommend the hospital to friends and family. The satisfaction score and recommendation of hospital to friends and family improved after the intervention see **Table 8** below:-

Table 8:- Status of patient satisfaction at Oromia regional state Goba Hospital, April 2012

Status of patient satisfaction (N=50)	Pre Assessment result		Post Assessment result	
	N	%	N	%
1. Status of patient satisfaction rating				
-<5	5	10%	0	0%
-5-7	21	42%	7	14%
-8-9	10	20%	29	58%
-10	14	28%	14	28%
Mean (Average satisfaction score)	7.4		8.6	
2. Could you recommend the hospital to friends and family				
- Probable no	6	12%	1	2%
- Definitely no	7	14%	4	8%
- Probable yes	14	28%	5	10%
- definitely yes	23	46%	40	80%

Predictors of Patient satisfaction by bivariate analysis

Patient distinguish between doctors and nurses, Cleanliness of latrine and bath room, easy to move around the hospital, payement expensive and Someone discussed the symptoms to lookout after the patient left the hospital are predictors of patient satisfaction at pre-intervention by bivariate analysis at p-value and COR{[0.035,0.001,0.001, 0.001, 0.005, 0.005] and [0.236, 0.058, 0.017, 14.4, 0.045,0.045]} respectively.

Cleanness of latrine and bathrooms, easy to move around the hospital, the staff told the patient the advantage of medicine and someone discussed to the patient the symptoms to lookout after they left the hospital are predictors of patient satisfaction at post-intervention by bivariate analysis at p-value and

COR [[0.047, 0.013, 0.004, 0.001] and [0.158, 0.137, 0.031, 0.014]] respectively. Predictor of patient satisfaction in Oromia National Regional state, Goba Hospital see **table 9** below

Table 9: - Predictor of patient satisfaction in Oromia National Regional state, Goba Hospital, by bivariate analysis, April 2012

Variables of interest	Status of satisfaction				Pre-intervention		Post-intervention	
	Satisfied		Not satisfied		p-value	COR	p-value	COR
N= 50	Pre	Post	Pre	Post				
Distinguish between Doctors/Health officers and Nurses								
Yes	29	41	6	7	0.035	0.236		
No	8	0	7	2				
Latrine and bath rooms was clean								
Yes	28	40	2	4	0.001	0.058	0.047	0.158
No	9	1	11	5				
Easy to move in the hospital								
Yes	35	35	3	4	0.001	0.017	0.013	0.137
No	2	6	10	5				
Is payment expensive?								
Yes	5	0	9	8	0.001	14.40		
No	32	41	4	1				
The staff told me for what the medicine was								
Yes	30	40	7	5			0.004	0.031
No	7	1	6	4				
Someone discussed me what symptoms to								

lookout for I left the hospital	24	37	1	1	0.005	0.045	0.001	0.014
Yes								
No	13	4	12	8				

Predictor of patient satisfaction by multivariate analysis

Cleanliness of latrine and bath rooms and someone discussed the patient what symptoms to lookout after they left the hospital are predictors of patient satisfaction in pre-intervention at p-value and AOR {[0.021, 0.014] and [0.072, 0.079]} and in post intervention at p-value and AOR {[0.05, 0.008] and [0.38, 0.022]} respectively by multivariate analysis, see **table 10 below**

Those who explained the bathrooms and latrines were not clean were 0.38 times less likely satisfied as compared to those explained.

Those participants not explained the symptoms to lookout after they left the hospital are 0.022 times less likely satisfied as compared to those explained.

Table 10: - Predictor of patient satisfaction in Oromia National Regional state, Goba Hospital, by multivariate analysis, April 2012

Variables of interest N= 50	Status of satisfaction				Pre-intervention		Post-intervention	
	Satisfied		Not satisfied		p-value	AOR	p-value	AOR
	Pre	Post	Pre	Post				
Latrine and bath rooms was clean								
Yes	28	40	2	4	0.021	0.072	0.05	0.38
No	9	1	11	5				
Someone discussed me what symptoms to lookout for I left the hospital								
Yes	24	37	1	1	0.014	0.079	0.008	0.022
No	13	4	12	8				

Discussion

Satisfying patients has become a key task for all healthcare providers. This study showed that satisfaction levels of patients improved when compared to previously conducted research on patient satisfaction in Ethiopia. The out patient satisfaction score of respondent on this study after the intervention showed that 8.6 that was greater than different studies done in Ethiopia [6]. On the other hand, the study undertaken at Jimma referral hospital on outpatient satisfaction was low, which score only 5.2 of outpatients were satisfied [7].

Thirty-six percent of the patients explained that they were not described the side effects of medication in a way they understood, 50% of them not described the symptoms to look out after they left the hospital before the intervention and this is similar with the study done in Nigeria [5]. However, after the intervention eight-six percent of the respondents reported that the staff told them the side effect of medication and 76% of the respondents reported that the staff explained them the symptoms to lookout after the patient left the hospital and there was a great improvement by the intervention made.

Forty percent of the respondent explained that the cleanness of latrine/ bathroom were not good which is comparable with the study done in different parts of Ethiopia on outpatient satisfaction with dissatisfaction percentage of 28.5. However, after the intervention eighty percent (80%) of the respondent rated as strongly agree that Latrine and bathrooms was clean.

In general medication communication gaps such as explaining patients the side effects of medication, symptoms to lookout after they left the hospital, and patients' evaluation on cleanliness of latrine/ bathroom were changed from previous 64%, 50% and 60% to 86%, 76% and 88% respectively after the intervention was done. This results change in outpatient satisfaction from 7.4 score to 8.6 score.

Finally, cleanliness of latrines and bathrooms and medication communication are predictors of patient satisfaction. However, the results of this study might suffer from response bias because facility based studies produce more positive responses by the patient.

Strengthen and Limitation of the study

Strength

Out sourcing of Outpatient Cleaning service is aligned with health care financing proclamation.

Limitations

The results of the study might suffer from response bias because facility based studies produce more positive responses by the patient.

Conclusion and Recommendation

Conclusion

Patients were described the side effects of medication in a way they understood, Patients were described the symptoms to look out for after they left the hospital and Patients' evaluation on cleanliness of latrine/ bathroom were changed from previous 64%, 50% and 60% to 86%, 76% and 88% respectively after the intervention was done. This results change in outpatient satisfaction from 7.4 score to 8.6 score.

Finally, cleanliness of latrines and bathrooms and medication are predictors of outpatient satisfaction.

Recommendation

Goba Hospital showed attention to sustain the current outpatient satisfaction score.

Goba Hospital give attention to cleanliness of latrines/bathrooms and medication communication hence, they are predictors of patient satisfaction.

Oromia Regional Health Bureau has design strategies to expand the way hospitals improved their patient satisfaction.

Reference

1. Zewdie B, Tsion A, Mirkuzie W and Sudhakar M. Determinants of satisfaction with health care provider interactions at health centers in central Ethiopia: BMC Health Services Research 2010, 10:78doi:10.1186/1472-6963-10-78.
2. Abebe B, Girum T, Yared M, Woldemariam G, Ambaye , Asnakech M, Amare D. Levels of outpatient satisfaction at selected health facilities in six regions of Ethiopia, Ethiop.J.Health Dev 2008;22(1).
3. Mitike , Mekonnen A, Osman M. Satisfaction on outpatient services in hospitals of the Amhara Region. Ethiop Med J. 2002 Oct; 40(4):387-96.
4. Poramaphorn C. International patients' satisfaction towards nurses service quality, Srinakharinwirot University.
http://thesis.swu.ac.th/swuthesis/Bus_Eng_Int_Com/Poramaphorn_C.pdf
5. Margaret O and Wilson O. Patients' response to waiting time in an out-patient pharmacy in Nigeria. Tropical Journal of Pharmaceutical Research, December 2003; 2 (2): 207-214.
6. Abebe B, Girum T, Yared M, Woldemariam G, Ambaye , Asnakech M, Amare D. Levels of outpatient satisfaction at selected health facilities in six regions of Ethiopia, Ethiop.J.Health Dev 2008;22(1).
7. Helena Ge, Abraham H, M, Ayalew T. Clients' satisfaction with anti retroviral therapy services at Jimma university specialized hospital. Ethiop J Health Sci.2008 18(2).
8. Lemessa O, Solomon G. Satisfaction with outpatient health services at Jimma Hospital, South West Ethiopia, Ethiop. J. Health Dev. 2001;15(3):179-184.
9. Hemant. Predictors of satisfaction of patients at the regional hospitals of Mauritius. Department of Health & Management, University of Mauritius 2004 Vol. 7 (4).
10. Peter W. Cleanness matter nursing standard July 14/vol18/no44/2004
11. Khalid Farooq D, Umar Awwab K, Tahir C, Muhammad N. Patient Satisfaction; An Experience at IIMC-T Railway Hospital. Rawal Med J 2008;33:245-248
12. Birna A: The quality of Hospitals services in Eastern Ethiopia: Patients' perspective. Ethiopian J Health Dev 2006, 20:199-200.
13. Stewart W, David R, Graham C: The importance of empathy in the enablement of patients attending the Glasgow Homoeopathic Hospital. Br J Gen Pract 2002 , 52:901-905.

Annex 1: Questionnaire

Addis Ababa University, College of Public Health and Medical Sciences, Department of Public Health, Questionnaires designed to assess the status of patient satisfaction in Oromia regional state, Goba Hospital.

Instruction

1. This questioner will be filled separately and discussion is not allowed.
2. If there is any problem in understanding question, you are encouraged to ask data collector to clarify the point
3. You are kindly requested to fill it confidentially without any modification
4. All the responses remain anonymous
5. Your response will be kept confidentially

Consent Form

_____, I am here on behalf of Addis Ababa University, College of Public Health and Medical Sciences, Department of Public Health and Oromia Regional Health Bureau to assess the status of patients at Goba hospital. Your honestly participation in filling questionnaires will provide us valid result and show us our real status and help to make intervention; hence we request to participate honestly. Your participation in filling the prepared questionnaires and every aspect of the study are voluntary. You may skip any question that you prefer not to answer, but we would appreciate your cooperation. You may also ask me to clarify questions if you do not understand them you can stop the interview at any time. Finally, all the information that you provide for the study is kept completely confidential. Only number identifies your responses to our questions, never by name. Do you agree to participate in this study?

Yes _____ 1 No _____ 2 stop

Thank you for your kind cooperation!

1. General (Socio-economic and Demographic) data

1.1. Sex: Male female

1.2. Level of education ; Certificate diploma BSc
 MD Specialist Masters

Other (specify) _____

1.3. Monthly income _____

1.4. Time of arrival ____ Time of discharge ____ Total time spent at Hospital ____

O-PAHC Survey

Survey No.		Health Facility Name:	
Male <input type="checkbox"/>	Female <input type="checkbox"/>	Age	Date (DD/MM/YYYY):
Morning/Afternoon		Department:	

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. During this visit, <u>nurses</u> treated me with courtesy and respect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. During this visit, <u>nurses</u> listened carefully to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. During this visit, <u>nurses</u> explained things in a way I could understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. During this visit, <u>doctors/health officers</u> treated me with courtesy and respect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. During this visit, <u>doctors/health officers</u> listened carefully to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. During visit, <u>doctors/health officers</u> explained things in a way I could understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I could distinguish between doctors/health officers and nurses.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
8. The outpatient department was clean.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. The bathrooms/latrines were clean (leave blank if not applicable).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I was prescribed new medication at this visit.	<input type="checkbox"/> Yes <input type="checkbox"/> No, Skip Q11, 12, & 13			
11 The staff told me what the medication was for.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
12 The staff described the medications possible side effects in a way I could understand.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
13 All the medications I needed were available at the drug dispensary here.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
14 Someone discussed with me what symptoms to look out for after I left the health facility.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
15. It was easy for me to find my way around the facility.	<input type="checkbox"/> Yes <input type="checkbox"/> No			
16. On a scale of 0-10 (0 being the worst facility, 10 being the best facility), how would you rate this health facility?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0 1 2 3 4 5 6 7 8 9 10 Worst.....Best			
17. I would recommend this outpatient department/clinic to my friends and family.	<input type="checkbox"/> Definitely no	<input type="checkbox"/> Probably no	<input type="checkbox"/> Probably yes	<input type="checkbox"/> Definitely yes
18. I had to pay for this outpatient visit.	<input type="checkbox"/> Yes <input type="checkbox"/> No, Skip Q19			
19. I consider this outpatient visit too expensive.	<input type="checkbox"/> Yes <input type="checkbox"/> No			

Xiinxala haala dhaabbata fayyaa dhukkubsattoota dedebeniin yaalamanii (XHDFDDY) Qorannoo XHDFDCY

Lakkoofsa qorannoo	Maqaa Dhaabbata Fayyaa; Hospitaala Goba
Dhiira <input type="checkbox"/> 1 1 Dhalaa <input type="checkbox"/> 2	Guyyaa:
Waaree dura /waaree booda	Garee dhimmaa :

- 1.1. Sadarka barnoota: Certificate diploma BSc
 MD Specialist Masters

Other (specify) _____

1.2. Galii ji'a _____

1.3. Sa'atii itti dhufaan ____ itti bataan _____ dimshaashaa sa'a turtaan _____

	Tasaiyyuu itti wali hin galu	Itti wali hingalu	Ittan waliigala	Cimseen itti waligala
1. Dhufaatii koo ammaa kanattii Naarsonni kabajaa fi dhimmamuudhaan tajaajila wal'aansaa siif kennani?	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
2. Dhufaatii koo ammaa kanattii Naarsonni sirriitti na dhaggeeffatan.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
3. Dhufaatii koo ammaa kanattii Naarsonni dhimmooti barbaachisan irratti akkataa anaaf galuu danda'uun ibsa naaf kennan.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
4. Dhufaatii koo ammaa kanattii <u>Doktooronni/Qondaaltotni Fayyaa</u> kabajaa fi dhimmamuudhaan tajaajila wal'aansaa naaf kennan	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
5. Dhufaatii koo ammaa kanattii <u>Doktooronni/Qondaaltotni Fayyaa</u> sirriitti na dhaggeeffatan.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

6. Dhufaatii koo ammaa kanattii, <u>Doktooronni/Qondaaltotni Fayyaa</u> dhimmooti barbaachisan irratti akkataa anaaf galuu danda'uun ibsa naaf kennan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Doktooronni/Qondaaltotni Fayyaa fi Naarsota addaan baasee ni beeka.	<input type="checkbox"/>	<input type="checkbox"/>		
8. Kutaan tajaajila deddeebi'ani yaalamuu qulqulluu dha.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Kutaaleen tajaajila dhiqannaa fi mana fincaanii qulqulluu dha (yoo hin jiru ta'e duwwaa dhiisi).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Dhufaatii koo ammaakanatti qorichi haaraatu naaf ajajame.	<input type="checkbox"/>	<input type="checkbox"/>		
11. Ogeesoton qorichichi maaliif akka gargaaru natti himan iiru	<input type="checkbox"/>	<input type="checkbox"/>		
12. Ogeesotoni miidhaalee qorichi geessisuu danda'an akkataa anaaf galuu danda'utti naaf ibsan jiru.	<input type="checkbox"/>	<input type="checkbox"/>		
13. Qorichoota anaaf barbaachisan hunda kutaa raabsaa qorichaa keessatti argadheera.	<input type="checkbox"/>	<input type="checkbox"/>		
14. Ergan dhaabbatichaa bahe booda mallattoolee attam attamii ofirratti hordofuun akka ana irra jiru namni natti hine jira.	<input type="checkbox"/>	<input type="checkbox"/>		
15. Dhaabbaticha keessa garan barbaaddetti sochoun anaaf salphaadhaa.	<input type="checkbox"/>	<input type="checkbox"/>		

16. Sadarkaan kaa'uu 0-10 tti (0 dhaabbata baayi'ee gadhee ,10dhaabbata baayi'ee gaarii), dhaabbata kanaaf sadarkaan ani kennu:-	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
	0 1 2 3 4 5 6 7 8 9 10 Baayi'ee gadhee... baayi'ee gaarii			
17. Kutaa tajaajila deddeebi'ani yaalamuu kana firootiin koo fi hiriyootni koo akka itti fayyadamaniif nan gorsa.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Tasaiyyuu miti	Tarii miti	Tarii eyyee	Sirriitti Eyyee
18. Baasii tajaajila deddeebi'ani yaalamuu kafalee jira	<input type="checkbox"/>	<input type="checkbox"/>		
19. Baasiin kutaa tajaajila deddeebi'ani yaalamuu kun	<input type="checkbox"/>	<input type="checkbox"/>		

