

ADDIS ABABA UNIVERISTY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY

**ASSESSMENT OF PATIENTS' SATISFACTION WITH HEMO
DIALYSIS CARE AT SELECTED GOVERNMENTAL DIALYSIS
UNITS IN ADDIS ABABA, ETHIOPIA, 2018**

BY: -SEMIEN KETEMA (BCSN)

ADVISOR: -TESHOME HABTE (MSCN)

CO-ADVISOR: ZURIASH MENGESTU (PHD STUDENT)

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ACRONYMS

CKD -----Chronic Kidney Disease

CVD-----Cardio Vascular Disease

ESRD-----End Stage Renal Disease

HD-----Hemo-dialysis

MSRH-----Menilik Second referral Hospital

QOL-----Quality Of Life

RRT-----Renal Replacement Therapy

SPHMMC-----Saint Paul Hospital Millennium Medical College

SPSS-----Stastical Package for Social Science

ZMH-----Zewditu Memorial Hospital

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ABSTRACT

Introduction:-Assessment of patient satisfaction viewed by the scholars as vital and necessary in modern health care due to rising patient satisfaction. It is an important strategy that makes the decision clear and concise about the practices of the care providers. Patient's satisfaction is beneficial as an indicator of care values provided by care providers. Patient satisfaction is viewed as a significant and valid measure of efficiency in health care delivery.

Objective:-to assess Patients' Satisfaction with hemo-dialysis Care at selected dialysis units in Addis Ababa, Ethiopia.

Methods:-A cross-sectional facility based quantitative and qualitative mixed methods of research approach were conducted on patients undergoing maintenance hemo-dialysis requiring direct and continuous care. The data was collected from three dialysis units of Government Hospitals which have been providing the service (Saint Paul's Hospital, Zewditu Memorial Hospital and Menilik II Referral Hospital, at Addis Ababa from May to April, 2018, Purposive sampling method was used for quantitative because of few number of source population and snow ball sampling method was used for qualitative approach. A total of 121 participants were included in the samples, 113 for quantitative and 8 participants for qualitative data respectively. Data was collected by interviewer administered structured and semi-structured pretested questionnaires was used; data was analyzed using Epi data and SPSS. Bivariate and multivariate logistic regression analyses was undertaken to identify predictors of patient satisfaction. The association between explanatory and dependent variable was reported using odd ratio and its 95% confidence interval.

Result:-The overall proportion of participants' satisfaction was found to be 41.6%. Majority of the respondents (81.4%) were rated high, nurses care on vascular access site and nurses advice on post dialysis results were rated very low (1.8%). The regression analysis shows that income, educational status, residence and frequency of dialysis were predictors of the overall satisfaction score ($p < 0.05$). The results of qualitative data also supporting the quantitative data, majority of the participants dissatisfied with the general service provided in dialysis units.

Conclusion and Recommendation: -low percentages of participants (41.6%) were satisfied concerning care in hemo-dialysis units, the level of satisfaction was lower compared to

others studies ,this might be due the scarcity of resource and due to the fact that the service is infant for the country, the care provided in dialysis set up may not fulfill necessary requirements and also health care providers might have a gap in knowing what they have to deliver for their clients, hence; it strongly stressed that there is a great need for clinical practices to be improved in order to fulfill the patients' needs, so as to bring a high percentage of satisfaction.

Key words:-Assessment, patient satisfaction, care of hemo-dialysis

INTRODUCTION

1.1. Background

Chronic kidney disease (CKD) is a progressive loss of renal function over a period of months or years. Severe CKD requires renal replacement therapy. This may be in the form of dialysis, and also renal transplantation. (1).

Therefore since Hemo-dialysis is a chronic and continuous care assessing patient's satisfaction towards the care provided is very essential.

Patient satisfaction is becoming an emerging health policy all over the world.

It is a key determinant of quality of care and an important component for-performance measurement.(2)

Conceptually, it has been defined as patient's judgment on the quality and goodness of care. It can be described as a healthcare recipient's reaction to several aspects of their service experience. It is related to perception of the outcome of care and the extent(3).

Patient satisfaction is viewed by the authors as vital and necessary in health care due to rising of needs for better care. It is also viewed as a significant and valid measure of efficiency in health care delivery(4).

It is a perception and an attitude that a consumer can have or view towards a total experience of health care. It includes both cognitive and emotional state and is influenced by previous experience, expectations and social environment (5).

It is a very important aspect to evaluate health care outcome, so patient satisfaction has been often defined as the extent of agreement between what a patient expects to result or obtain from the healthcare experience and the perception of care they actually receive(6).

Patients' satisfaction has become an important indicator in measuring the quality of care given to the patients while in hospitals and getting the service(7).

Satisfaction with a healthcare service can be defined as the quality of an offered service as perceived by the patient, and is a performance indicator of healthcare organizations. Hence, such satisfaction is a top consideration when measuring healthcare and services to fulfill patients 'expectations and needs(8).

Healthcare quality is an important issue in medicine particularly, regarding chronic conditions, like in the case of end-stage kidney disease(9, 10).

Satisfaction is the a combination of different factors and so as to achieve this targeted goal, it is necessary to organize various aspects of services such as nursing, medicine, support and various organizational sections(6, 11, 12).

In this study, patient's satisfaction with the care provided in dialysis unit is defined as, the patient's opinion of the care and service received from all medical staff, supporting staff and the facility itself.

1.2. Statement of the Problem

Owing to the Chronicity of End Stage Renal disease (ESRD), dialysis patients can spend years of treatment in centers with extensive interaction with dialysis staffs. The increasing number of patients with end stage renal disease (ESRD) worldwide and also in Ethiopia has caused a substantial rise in the number of individuals receiving hemo-dialysis(6).Therefore assessment of satisfaction on hemo-dialysis patients is very essential.

Achievement of patient satisfaction can be affected by several factors. High level of burnout amongst nephrology nurses and physicians resulted in poor patient satisfaction regarding quality of services offered. Most recent studies focusing on quality of health care services provided specially for chronic patients, for recognizing the importance of patient satisfaction in assessing quality of medical care.(13)

The enormous costs of treatment for chronic kidney disease lead to a large burden for the health care systems, particularly in developing countries.

In contrast to quality of life, only few previous studies have addressed patient satisfaction with renal replacement therapy(6,11,14).

This is also major problem in Ethiopia where access for dialysis and care of the disease is extremely limited.(15)

Hemo-dialysis affects the professional and psychological well- being of the patients and their social and economic status, resulting in a large number of psychological disorders.

The most frequently reported psychological concerns of people undergoing hemo-dialysis are food and fluid restrictions, changes in marital role, financial concerns, changes in social and marital relationships, frequent hospitalizations, limitations in vacations, limitations in leisure

activities, increased dependency on the artificial kidney machine, the medical staff and family environment, uncertainty about the future, sleep disturbances, physical fatigue, sexual problems, limitation in physical activities, unemployment and changes in body appearance.(16)

Most of patients on dialysis are troubled by the fact that they have poor nutrition, which is a major factor of poor quality of life because it increases the rate of morbidity and mortality.

Patient satisfaction with care and caregivers is an important aspect of dialysis treatment. (17).

Hence, patient satisfaction is a critical issues in our country as other world, asit affects patients' compliance to treatment and health outcome of patients on renal replacement therapy.

This study intended to assess hemo-dialysis patient's satisfaction on governmental dialysis units.

1.3. Justification of the Study

Chronic care like hemo-dialysis is subjected to condition that causes the clients and health care provider feel exhaustion, due to its serious care and treatment. A simple and easy mistake can cause a serious complications and even death. So these conditions make both health care providers and clients live in trouble (10).

Hemo-Dialysis is a lifelong care as far as kidney transplant is not done, so patients on hemo-dialysis care are forced to visit the dialysis center at least three times per week. Unless the care provided is not in appropriate way, its cause discourage to the service (14).

Literatures show that patients on hem-dialysis are the least satisfied one. Among those reasons why patients on maintenance hemo-dialysis dissatisfying are:-spending most of their time in health institution, the cost for hem dialysis and restriction in input output of diet and fluid are the major one. (6, 7, 8)

The study conducted on patients' satisfaction towards dialysis care is limited in Africa (15).

As far my knowledge concerned there is no study revealing satisfaction towards dialysis care in Ethiopia.

So this study was intended to assess the care given in dialysis unit and factors affecting patients' satisfaction among patients on maintenance hemo-dialysis.

1.4. Significance of the Study

Patient satisfaction is considered as a crucial part of an indicator for the assessment of health care implementation programs, while it affects providing health service quality, client retention and clinical misconduct. Furthermore, it may be a very effective indicator to measure the success of a health care team, especially in a dialysis unit when dealing with chronic patients undergoing hemodialysis therapy. Associated factors around the working environment are very important in designing and implementing interventions at national and international levels.

In addition, this patient's satisfaction study can be a tool for learning by highlighting areas of weakness in order to overcome these obstacles via appropriate management decisions. The data can also serve as a means of holding physicians and nurses accountable; and it can show that they have an acceptable level of patient's satisfaction or not.

So, the information obtained from this study will be useful for the health care workers who are working in the dialysis units through identification and improving service quality and decision makers in planning, implementing and evaluating various interventions related to improving the care given in a dialysis set up.

This research project study will also be baseline information for future researchers.

2. LITERATURE REVIEW

2.1. Introduction

The aim of literature review is to retrieve sufficient number of literatures, to evaluate and synthesize them in detail in order to build up a strong knowledge and understanding on the finding of the study.

This literature review covered a time period from 2009 to the present time, focusing on patients satisfaction towards the care offered in dialysis set up. To search those data base Addis Ababa University library data base, HINARI, Google scholar, CINAHL, BMC, East African Medical Journal and Pub Med were used. The finding of these literature searches were analyzed categorized and presented in to two sub sections. Level of Patients satisfaction and Factors affecting patients' satisfaction on maintenance hemo-dialysis care.

2.2. Level of satisfaction of patients on maintenance hemo-dialysis

Cross –sectional survey across Europe and south America Study reveals aspects of care that respondents most frequently ranked as excellent were staff attention to dialysis vascular access (54% (52% to 56%)); caring of nurses (53% (51% to 55%)); staff responsiveness to pain or discomfort (51% (49% to 53%)); caring, helpfulness and sensitivity of dialysis staff (50% (48% to 52%)); and The aspects of care least frequently ranked as excellent were information provided when choosing a dialysis modality (23% (21% to 25%)), ease of seeing a social worker (28% (24% to 32%)), information provided about dialysis (34% (32% to 36%)), accuracy of information from nephrologists (eg, about prognosis or likelihood of a kidney transplant; 37% (35% to 39%)) and accuracy of nephrologists' instructions (39% (36% to 41%))(11).

In contrast to the study done in Europe and south America a study conducted in Beni Yusuf Hospital in, Egypt the patients are dissatisfied in all aspects of care except a physician contact(64.6%), convenience and financial aspects(57.0%, however about 53.2% reported the technical quality was good (7).

A descriptive cross-sectional study conducted in Saupolo Brazil shows that the majority of the client was very satisfied with physician contact and the availability of nurses but there was a limitation on construction of vascular access by Additionally, patients were considered very satisfied with the number of nurses available in the Center (56.7%),the attention of those

professionals towards their needs, evaluating and registering (50.6%), and also on what refers to punctuality in connecting them to the dialysis device (85%) the majority stated they were very satisfied with the environment(12).

A cross-sectional survey conducted in Kenyatta National Hospital, in Kenya reveals that (45.7%) patients reported neutral satisfaction with reception they received during visits to the renal unit.

The highest level of dissatisfaction was expressed by 19.9% of patients and was concerned with history taking of previous dialysis and current history of water and dietary intake. Most responses related to nursing observations and advice during both pre- and post-dialysis showed patients' satisfaction ranged from neutral to satisfied levels. the nurse to consult a doctor in case of noticing an abnormal finding on physical exam, was rated high (85.3%).Only 17.9% of patients were very satisfied with health education. (22.5%) reported that they were satisfied with the health education offered by nurses' during dialysis. (24.5%) had neutral satisfaction with provision of health education. Only 17.9% of patients were very satisfied with health education. 85% with nurses' administration of drugs and 84% with the way nurses responded to technical hitches during dialysis (38.4%) patients were very satisfied with the dressing of catheter exit site in the Renal unit. The dimension of responsiveness, in regard to response to alarms by nurses rated 72.9%.(19).

Study conducted on adult Patients' satisfaction with inpatient nursing care in Hospital, north east, Ethiopia indicates that the overall satisfaction with nursing care 52.8% (3)

Similar study conducted at Debrebrihan Referral Hospital Patients' Satisfaction and its determinants in Outpatient Department shows that the overall satisfaction of patients 57.1% (5).

2.3. Factors associated with patients' satisfaction on maintenance

Hemo-dialysis

2.3. 1.Socio demographic characteristics

A cross-sectional survey Across Europe and South America, indicates that older respondents were more likely to consider care excellent (adjusted OR (AOR) for those 70 years or older, 1.44 (CI 1.01 to 2.04) compared with those aged 18–49 years (11).

A cross-sectional study conducted in Riyadh Saudi Arabia, male patients reported worse effect of dialysis on family life, social life, energy, and appetite. Lower level of education was associated with worse dialysis effect on stress, overall health, sexual life, hobbies, and exercise ability **(18)**.

Similar study done in Lebanon shows those older patients more satisfied than younger patients. However study done in Iraq reveals that there is no statistical significant difference between patients' satisfaction and their socio demographic characteristics {Age, Sex, Marital status, Educational status and Occupation} **(10)**.

Also a cross-sectional study conducted at Kenyatta National Hospital in Kenya there is no significant difference between different age groups **(19)**.

Study done in Egypt reveals general satisfaction was statistically significant positive correlation with financial aspect {.046} **(7)**.

Study done on adult Patients' satisfaction with inpatient nursing care in Hospital, north east, Ethiopia indicates that, female patients were about 2 times (AOR = 2.20, 95%CI: 1.30, 3.73) more likely to be satisfied with the nursing care as compared to male patients. Patients within the age group of 18–30 years were almost 5 times (AOR = 4.77, 95%CI: 1.97, 11.55) more likely to be satisfied with the nursing care as compared to patients above the age of 61 **(3)**.

Similar study conducted on Patients' Satisfaction and its determinants in Outpatient Department of Deberebirhan Referral Hospital, North Shoa, and Ethiopia shows that age, educational status, payment status, waiting time, availability of drug and supply were found to be significantly associated with patient satisfaction **(5)**.

In contrast to study conducted at Deberebrihan referral hospital ,study conducted in Jimma university Specialized Hospital on perceived patients satisfaction on in patients service, reveals that there is no association between sex ,age, marital status ,occupation ,frequency of visit and waiting time but educational status. It was observed that patients with no formal education were more satisfied than their counterparts (p = 0.004) and address were found to have significant association with the level of patients' satisfaction, patients from urban areas were less satisfied than those from the rural area {p = 0.023} **(2)**.

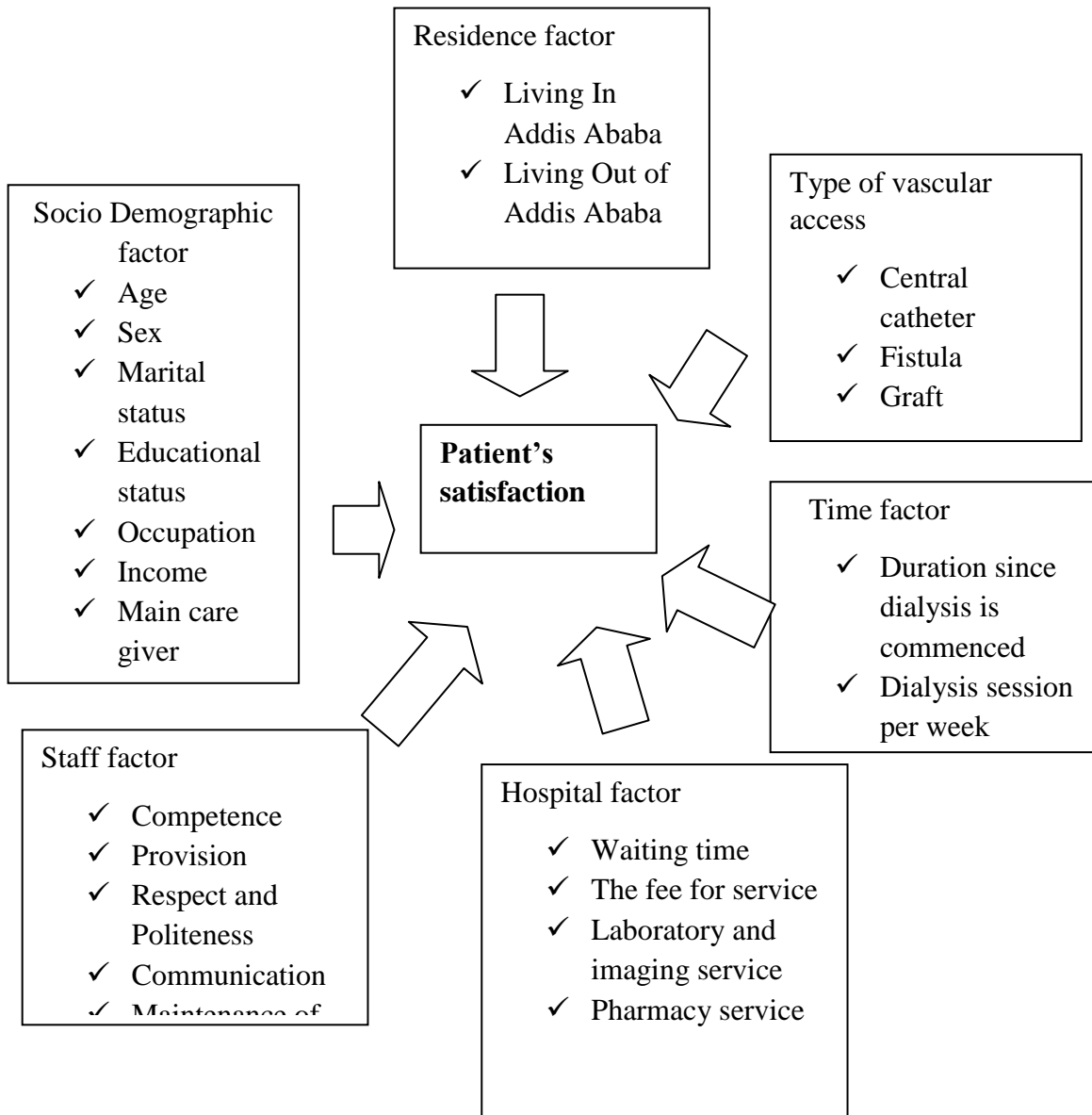
2.3.2. Time duration factor

Study in Riyadh Saudi Arabia indicates the duration of dialysis has no any significant association with satisfaction of patients towards the care given in dialysis but a similar study conducted in Sultanate of Oman indicates, longer period since the commencement of dialysis was associated with adverse effect on finances and energy(18).

2.3.3. Residence related factor

International survey conducted in four countries (Argentina, Hungary, Poland and Portugal) indicates that the distance from dialysis center has an association with patients' satisfaction (AOR 1.37 (CI 1.03 to 1.83)) (2).

2.4. Conceptual Frame work showing a linkage between patients' Satisfaction and Associated Factors



Adapted from literatures, (7, 13 &19)

Figure.1.A conceptual frame work on patients' satisfaction towards care in hemo-dialysis units adapted from different literatures and with some modifications to the Ethiopian context

3. OBJECTIVES OF THE STUDY

3.1. General Objective

To assess patient satisfaction on hemo-dialysis care at selected governmental dialysis units in Addis Ababa, Ethiopia, 2018.

3.2. Specific Objectives

- ✓ To describe satisfaction of patient on hemo-dialysis care provided in dialysis units.
- ✓ To identify factors that affect satisfaction of patients on hemo-dialysis care in dialysis units.

4. METHOD AND MATERIALS

4.1. Study area and period

This study was conducted in selected three governmental hospitals dialysis unit situated in Addis Ababa, Ethiopia from March to April 2018.

Addis Ababa is a capital city of Ethiopia and The headquarters of the African Union and the United Nation (UN) Economic Commission for Africa. There are thirteen governmental hospitals in the city, of which only three of them providing chronic hemo-dialysis service, Namely; Saint Paul Hospital Millennium Medical College, Zewditu Memorial Hospital and Menilik II hospital.

Saint Paul Hospital Millennium Medical College has currently 33 dialysis machines providing chronic dialysis for more than eighty patients.

Zewditu Memorial Hospital has six dialysis machines and providing chronic dialysis for about twenty Patients.

Menilik II referral hospital has currently ten functioning machine and providing chronic dialysis for about nineteen patients.

4.2. Study design

Facility based cross sectional triangulation mixed research approach was used to assess patient's satisfaction with care at dialysis units.

4.3. Population

4.3.1. Source population

All patients receiving hemo-dialysis service in governmental hospitals dialysis units in Addis Ababa.

4.3.2. Study population

Those participants on hemo-dialysis service at selected governmental hospitals dialysis units.

4.4. Eligibility criteria

4.4.1 Inclusion criteria

- Those participants age eighteen and above, both sex and mentally capacitated.
- Participants on the maintenance dialysis for about one month and above.

4.4.2 Exclusion criteria

- Those Participants critically sick during data collection period.

4.5. Sample size determination

A non probability purposive sampling method was used (all the participants fitting the inclusion criteria were involved) to determine sample size for quantitative data because of few numbers of source populations and Snow ball sampling method was used for qualitative data. For qualitative study the number of participant was determined by saturation of the required data. This means it was determined by redundancy of ideas.

4.6. Data collection Tools and Procedure

Data was collected using pretested structured questionnaires which adapted and suited to the local socio-demographic characteristics of the study population used for quantitative approach. . (7, 13, and 19) . A socio demographic characteristics questions were developed by Principal Investigator from literature on patients' satisfaction on hemo-dialysis care. For this study Amharic version structured questions containing questionnaire was administered by interviewer nurses to the participants. The questionnaire was translated in to Amharic version by language experts and it was re-translated back to English to check for its consistency. The questionnaires composed of two sections; the socio demographic part and the patients' satisfaction level and associated factors. Each questions on patients' satisfaction level was used a five-point Likert scale to measure participant responses;1=very dissatisfied ,2=dissatisfied, 3=Neutral,4=satisfied and 5=very satisfied. Twenty questions on level of patients 'satisfaction was asked and scored. The lowest score was 29 and the highest one was 76.Then the total scores of the respondent added and divided for twenty to measure patients' satisfaction on five points Likert scale of measurement. Based on this assumption those participants scoring above three considered satisfied, where as those participants scoring three and below will be considered dissatisfied.

The interview guide was developed by the principal investigator based on literature review that supports quantitative data. In-depth interview was conducted using semi-structured interview via

open ended question and different probing questions was used to get more information. The interviews were held out of the institutions after the participants completing their dialysis session and leaving the units. The number of in-depth interview is depending on the saturation of information. Since the qualitative part is to support the quantitative one eight in-depth interview was under went with the length of interview time 15 to 30 minutes. Two trained data collectors and one supervisor were participated on the study.

4.7. Sampling Technique

The sampling procedure was followed a purposive sampling method for quantitative and snow ball sampling method for qualitative research approach.

To avoid redundancy of the participants for interview and maintaining data quality those participants on maintenance hemo-dialysis for one month and above were first identified and were given a code using their chart.

4.8. Definitions of terms

Hemo-dialysis:-is process of removing wastes and fluid by an artificially made kidney via dialysis machine.

Chronic Kidney Disease:-is describing a gradual loss of kidney function.

End Stage Renal Disease:-is a medical condition in which a person kidney is cease functioning on permanent basis, leading the need of long term dialysis or kidney transplant to maintain life.

4.9. Operational definitions

Maintenance hemo-dialysis: - those patients that have been dialyzed for one month and above.

Level of Satisfaction: -Satisfaction towards care, up on assessment of satisfaction on five Likert scale of measurement

Satisfied:-those participants scoring on Likert scale measure >3.0

Dissatisfied:-those participants scoring on Likert scale measure ≤ 3.0 (those participant whose response is neutral considered dissatisfied). Neutral response might be from fear of expressing dissatisfaction (2).

4.10. Study Variables

4.10.1 Dependent variable

Patient's satisfaction

4.10.2. Independent variables

- Age,
- Sex,
- Marital status,
- Income per month
- Educational status
- Residence
- Occupation
- Duration of dialysis
- Frequency of dialysis
- Type of vascular access
- Main care giver

4.11. Data Quality Assurance

The quality of data was ensured through training of data collectors and supervisor. For two data collectors (Diploma nurses) and one Bsc nurse training was given for three consecutive days. Regular supervision, immediate feedback and reviewing each of completed questionnaires daily was under gone by principal investigator. Pretest was conducted on 5% of sample size at Tsigereda Dialysis Specialty Clinic two weeks before actual data collection. Based on the test result, some questionnaires were modified and clarities to the questionnaires were insured. The principal investigator was responsible for co-ordination and supervision of overall data collection process. Data collectors were follow three targeted consecutive visit in different days not to miss the eligible participant and minimize non -response rate.

4.12. Data Processing and Analysis

Data was verified, coded, edited checked for completeness before data entered in to Epi Data Software version 3.1 and then; it was exported and analyzed by SPSS version 24 Software. It was processed by carrying out simple descriptive statistics (mean and standard deviation) and used for quantitative variables and frequency with percentage distribution for categorized variables. Binary and multiple Logistic regressions were computed to evaluate the association. Those variables having significant association at bivariate level were entered in to multivariate regression to control the effect of confounding. Those variables having $p\text{-value} < 0.05$ were considered having significant association.

Qualitative data which was obtained from an in-depth interview was transcribed by arranging the record according to forwarded questions. Then thematic data analysis as flexible and use full method to provide a rich and detail account of qualitative data was used.

4.13. Ethical Consideration

The proposal of the study was submitted to Addis Ababa university department of nursing for ethical approval; then after, official letter was received from Addis Ababa university administrative office to get permission and cooperation. Institutional Review Board and official letter was written to Saint Paul Hospital Millennium Medical College and Addis Ababa health bureau, to get permission from each selected governmental hospital of Addis Ababa. After the IRB of the Saint Paul hospital Millennium College and Addis Ababa health bureau gave permission, the data collection was started by giving a permission letter to the concerned body of each hospital. The respondents were informed about the objective and purpose of the study and verbal consent was taken from each respondent. For qualitative part the participants were informed about recording their voice prior to undergoing in-depth interview. They also informed about their right of not participating in the study or withdrawing at any time. Confidentiality of the information was also assured.

5. Results

5.1. Socio-demographic characteristics

A total of 115 participants enrolled in quantitative study, 113 of the participants were responding to questionnaire with a response rate of 98.26%. Out of the total study subject 76 (67.3%) were male. 34 (30.1%) and 31(27.4%) of the clients were in the age group of 30-29 and 18-29 years respectively. Most of study participants educational level was college and above and working in governmental institutions. Marital status 58(51.3%) were married and 48(42.5%) were single. Most of the participants were from Addis Ababa and Fistula was the most commonly used vascular access for this study subjects.

Table1. Distribution of Socio demographic and care characteristics of patients getting hemo-dialysis service at Saint Paul Hospital Millennium Medical College, Zewditu Memorial Hospital and Menilik II Referral Hospital ,Addis Ababa, Ethiopia,2018 (n=113)

Variables	Categories	Frequency	Percent (%)
Age in years Mean =38±14.3	18-29	33	29.2
	30-29	34	30.1
	40-49	19	16.8
	>50	27	23.9
Sex	Male	76	67.3
	Female	37	32.7
Marital Status	Single	48	42.5
	Married	58	51.3
	Divorced	5	4.4
	Widowed	2	1.8
Educational status	Illiterate	5	4.4
	Primary	34	30.1
	Secondary	27	23.9
	College and Above	47	41.6
Occupation	Governmental	40	35.4
	Private	31	27.4
	NGO	10	8.8
	Student	8	7.1
	Jobless	8	7.1
	House Wife	6	5.3
	Other	10	8.8
Residence	Addis Ababa	83	73.5
	Out of Addis Ababa	30	26.5
Type of access	Catheter	29	25.7
	Fistula	70	61.9
	Graft	14	12.4

Main care giver	Self	19	16.8
	Children	16	14.2
	Wife	14	12.4
	Husband	5	4.4
	Other relative	59	52.2
Dialysis per week	One day	13	11.5
	two days	29	25.9
	Three days	71	62.8
Income per month Mean = 2599±2005	500-1500	47	41.6
	15001-2500	26	23
	2501-3500	11	9.7
	>3500	29	25.7

More than half of the main care givers were other relative (care providers other than children ,wife and husband) Most of the participants were within the range of one month and twenty four months since they have started dialysis, with (Mean23.95and SD of 22.74). Fewer than half of the participants' income was within the range of 500-1500 birr, with (Mean 2599.98 and SD 2005.57).

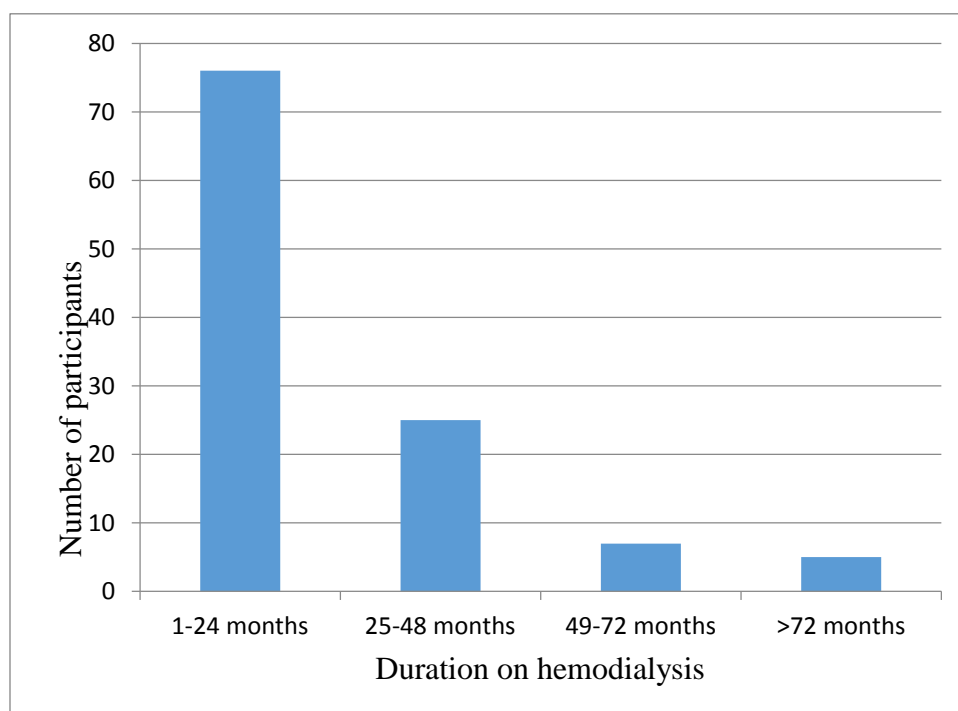


Figure.2. Illustrating Duration on hemo-dialysis at SPHMMC, ZMH and MSRH, at Addis Ababa, Ethiopia, 2018(n=113)

5.2. Percentage distribution of satisfaction with socio-demographic characteristics

This study reveals overall satisfaction was 47(41.6%). The Majority of the participants 66(58.4%) were not satisfied with the care provided in dialysis units. Participants within the age (30-39) and (18-29) are the most satisfied one 16(47.1%) and (42.4%) respectively. Male participants and those unmarried are the most satisfied 33(43.4) and 24(50%) respectively. Regardless of educational status those at college level and above were most satisfied 29(61.7%). On the other hand participants with monthly income of 500-1500 were the least satisfied one 8(17.1%). Similarly participants' residencies out of Addis Ababa were least satisfied 7(23.3%). Also Participants with vascular access (graft) were least satisfied 1(7.1%). Participants with care giver being their child and those getting one dialysis session per week were least satisfied 4 (25%) and 1(7.7%) respectively

Table.2. Percentage of level of satisfaction with participants socio-demographic characteristics at SPHMMC, ZMH and MSRH dialysis units, Addis Ababa ,Ethiopia, May,2018(n=113)

Variables	Categories	Level of satisfaction		Total
		Satisfied N (%)	Dissatisfied N (%)	
Age	18-29	14(42.4)	19(57.6)	33
	30-39	16(47.1)	18(52.9)	34
	40-49	8(42.1)	11(57.9)	19
	>50	9(33.3)	18(66.7)	27
	Total	47(41.6)	66(58.4)	113
Sex	M	33(43.4)	43(56.6)	76
	F	14(37.8)	23(62.2)	37
	Total			113
Marital status	Single			
	Married	20(34.5)	38(65.5)	58
	Divorced	2(40)	3(60)	5
	Widowed	1(50)	1(50)	2
	Total			113
Educational status	Illiterate	1(20)	4(80)	5
	Primary	10(29.4)	24(70.6)	24
	Secondary	7(25.9)	20(74.1)	27
	College and above	29(61.7)	18(38.3)	47
	Total			113

Occupation	Governmental	13(33.3)	26(66.7)	39
	Private	14(45.2)	17(54.8)	31
	NGO	4(40)	6(60)	10
	Jobless	3(37.5)	5(62.5)	8
	Student	3(37.5)	5(62.5)	8
	House wife	3(60)	2(40)	5
	Other**	7(58.3)	5(41.7)	12
	Total	47(41.6)	66(58.4)	113
Income per month	500-1500	8(17.1)	39(82.9)	47
	1501-2500	15(57.7%)	11(42.3)	26
	2500-3500	8(72.7%)	3(27.3)	11
	>3500	16(55.2%)	13(44.8)	29
	Total			113
Residency	A.A	40(48.25)	43(51.8)	83
	Out of A.A	7(23.3%)	23(76.7)	30
	Total			113
Duration since dialysis is commenced	1-24 Months	30(39.5%)	46(60.5)	76
	25-48 Months	10(40%)	15(60)	25
	49-72 months	2(28.6%)	5(71.4)	7
	>72 Months	(0%)	5(100)	5
	Total			113
Type of vascular access	Catheter	11(37.9%)	18(62.1)	29
	Fistula	35(50%)	35(50)	70
	Graft	1(7.1%)	13(92.9)	14
	Total			113
Frequency of Dialysis	1 day per week	1(7.7%)	12(92.3)	13
	2 days per week	8(27.6%)	21(72.4)	29
	3 days per week	38(53.5%)	33(46.5)	71
	Total			113

* - Gurage, silte,**-Retired, own business

5.3. Satisfaction levels with Likert scale Items

The results on the Likert scale items reveals that the majority of the participants were satisfied with nurses dressing of access site, communication and nurses attitude with mean and SD of [3.76,0.571],[3.63,0.571] and[3.61,0.674] respectively. Also most of the participants were satisfied with technical skills of nurses with mean and SD[3.55,0.612},the way nurses responding to alarms[3.48,0.757],the time of stay on dialysis machine[3.47,0.78], the way nurses initiate dialysis machine[3.32,0.710] ,the way nurses welcome to the unit [3.25,0.969]and the way nurses administered post dialysis Medication [3.06,0.759] as well.

In contrast to what the participants were pleased with, the majority of them were dissatisfied with advice given on post dialysis results with mean and SD [1.62,0.672] , the payment for the service [1.65, 0.799], physical examination prior to dialysis[1.65,0.626],history of fluid and diet intake [2.21,0.911],observation prior to dialysis [2.46,0.955],complaint handling [2.4,0.738],explanation for long waiting time[2.67,0.829],availability and accessibility of the service[2.51,0.745],the physical environment of the unit[2.93,0.863] and physician visit [2.98,0.981] .

5.4. Percentage of satisfaction with likert scale items

The findings from likert scale items indicates that, the majority of the participants were highly satisfied with nurses caring the vascular access site ,nurses attitude as they attend to patients, 92(81.4%), 80 (70.8%).and nurses communication79(69%) respectively. On the other hand items in which most of the participants moderately satisfied with stay on dialysis machine, Nurses response to technical alarm, technical quality of nurses and nurses welcome to the unit 72(62.8%),69(61.1%),67(59.3%) and 58(51.3%) respectively. On contrary the items that the majority of participants were not satisfied with, nurses physical examination prior to dialysis, financial condition of the institutions and nurses advice on post dialysis laboratory tests 0(0),2(1.8) and2(1.8) respectively.

Table.3. Satisfaction levels with Likert Scale Items participants at SPHMMC, ZMH and MSRH dialysis units ,Addis Ababa, Ethiopia, 2018(n=113)

No.	Questions	Very dissatisfied (N, %)	Dissatisfied (N, %)	Neutral (N, %)	Satisfied (N, %)	Very satisfied (N, %)	Mean and SD(+ Or_)
1	Nurses explanation for long waiting time and delays	3(2.7)	54(47.8)	33(29.2)	23(20.4)	0(0)	(2.67,0.829)
2	Handling of complaints	8(7.1)	61(54.0)	35(31.0)	9(8.0)	0(0)	(2.4,0.738)
3	Nurses observation taken prior to dialysis	21(18.6)	35(31.0)	41(36.3)	16(14.2)	0(0)	(2.46,0.955)
4	Hx taking of previous dialysis and current history of water and diet intake	27(23.9)	45(39.8)	31(27.4)	10(8.8)	0(0)	(2.21,0.911)
5	Nurses observation taken post dialysis prior to	3(2.7)	20(17.7)	57(50.4)	33(29.2)	0(0)	(3.06,0.759)
6	Satisfaction with the way nurses initiate dialysis	1(0.9)	13(11.5)	48(42.5)	51(45.1)	0(0)	(3.32,0.71)
7	Time spent with your Physicians	1(0.9)	40(35.4)	31(27.4)	41(36.3)	0(0)	(2.98,0.891)
8	The physical environment of the unit	2(1.8)	40(35.4)	35(31.0)	36(31.9)	0(0)	(2.93,0.86)
9	Accessibility service	8(7.1)	48(42.5)	48(42.5)	9(8.0)	0(0)	(2.51,0.745)
10	Overall Satisfaction with	3(2.7)	39(34.5)	51(45.1)	20(17.7)	0(0)	(2.78,0.765)

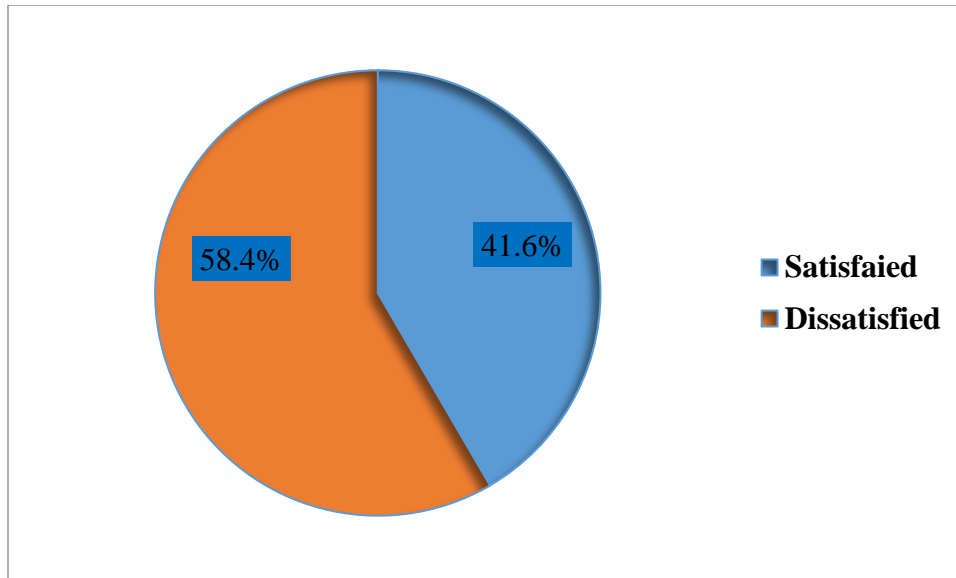


Figure. 3. Over all percentage of satisfaction of participants with care provided in dialysis units of SPHMMC,ZMH and MSRHH, Addis Ababa ,Ethiopia,May,2018 (n=113)

5.4. Bivariate and Multivariate Analysis

Bivariate and multivariate logistic regression analysis was used to identify the characteristics that might affect participants' satisfaction for the overall quality health care. The variables that were used were first correlated with bivariate logistic regression and those that had a value of $P < 0.05$ were used for the multiple regression analysis as independent variables. These variables were educational status, residence, and income and dialysis session per week

Table.4. Results from bivariate and Multiple logistic regression analysis about patients satisfaction with care in dialysis unit, May, 2018 (n=113)

No	Factor	Category	Participants satisfaction		95% Confidence interval	
			Satisfied N (%)	Dissatis- fied N (%)	COR	AOR
1	Educationa l status	Illiterate	1(20)	4(80)	1	
		Primary	10(29.4)	24(70.6)	1.667(0.165- 16.827)*	

		Secondary	7(25.9)	20(74.1)	0.043(0.033-1.03)*	0.074(0.008-0.657)*
		College and above	29(61.7)	18(38.3)	6.444(2.083-14.743)*	
2	Income	500-1499	8(17.1)	39(82.9)	1	
		1500-2500	15(57.7%)	11(42.3)	8.025(8.263-25.08)**	6.128(1.567-23.963)**
		2501-3500	8(72.7%)	3(27.3)	20.262(1.867-48.219)**	18.529(2.354-45.831)**
		>3500	16(55.2%)	13(44.8)	6.444(0.667-62.3)*	
3	Residence	Addis Ababa	40(48.25)	43(51.8)	1	
		Out of Addis Ababa	7(23.3%)	23(76.7)	0.0351(0.023-1.482)*	0.427(0.135-1.346)*
4	Dialysis per week	1 day per week	1(7.7%)	12(92.3)	1	
		2 days per weeks	8(27.6%)	21(72.4)	5.444(2.083-11.743)*	
		3 days per week	38(53.5%)	33(46.5%)	2.541(1.08-12.08)*	3.818(1.70-11.012)*

COR=Crude odds ratio, AOR=Adjusted Odds ratio, *=p. value <0.05, **=p. value <0.01,

5.5. Factors associated with patients' satisfaction

In bi-variate logistic regression analysis; educational status, monthly income,

Occupation, residence, frequency of dialysis and type of access were statistically associated with parental satisfaction with p-value <0.05 at 95% C.I. After bivariate analysis only those variables which were significantly related (p-value <0.05) were entered for further multivariate logistic analysis. After adjusting for potential Confounders in multivariate logistic regression analysis; most of variables which were significantly associated with patients' satisfaction by bivariate logistic analysis were significantly related with patients' satisfaction.

As illustrate in table above the participants having secondary level of education were less likely satisfied than the illiterates one and with overall satisfaction level of [AOR=0.074(0.008-0.657)*], Regarding income those participants having monthly income of 1500-2500 birr (6.128 times more satisfied and those participants having monthly income 2500-3500 birr are (18.529 times more satisfied than the participants with monthly income of less than 500-1500 birr with [AOR=6.128(1.567-23.963)**] and 18.529(2.354-45.831)** respectively.

Another important factor which significantly associated with patients' satisfaction is the residence, participants living out of Addis Ababa is less likely satisfied as compared those participants living in Addis Ababa with [AOR=0.427(0.135-1.346)*]. Frequency of dialysis is the other factor which significantly associated. Those participants having dialysis session three times per week is more likely satisfied than those having dialysis session one time per week [AOR=3.818(1.705-11.2010)].

5.5. Results of qualitative data

The participants in this study were selected by the non-probability snow ball sampling method. All interviews were performed by principal investigators and recorded on voice recorder for volunteer participants. The face to face in-depth semi-structured interviews for 15-30 minutes were held for all participants. The key questions were: What is your opinion on general service of the unit? 'What opinion do you have towards nurses' care, their communication, skills, behavior and like? And then follow up questions or probing questions were continued based on the participants' responses. The sampling was continued until saturation information was obtained. Finally by 8th interview data saturation was reached. After thematic data analysis was done on all interviews researcher formulated four themes. These themes were the issues that were recurred repeatedly in all of the interviews which include, physicians scheduled visit, fee for dialysis, nurses communication and supporting staffs role.

Demographic data was collected and aggregated for the eight participants whose age ranges from 32-60 years. Seven males and one female participant were involved in the study. The duration since they have started dialysis is range from two to six years.

The qualitative data was incorporated just to support quantitative data. The issues in which most of the participants pleased with quantitative data were supported by qualitative one. This means what the participants pleased with on quantitative part also pleased on qualitative data. Similarly the areas, in which the participants not satisfied with on quantitative data; also not satisfied on qualitative data.

Table.5.Illustrating the demographic distribution of participants on in-depth interview at SPHMMC, ZMH and MSRH dialysis units, Addis Ababa Ethiopia, 2018(n=8)

No	Age in years	Educational level	sex	Duration on hemo-dialysis in months
1	52	secondary	male	52
2	46	secondary	male	48
3	34	diploma	male	36
4	48	secondary	male	60
5	32	Bsc	male	28
6	34	diploma	male	78
7	60	diploma	male	40
8	55	primary	female	38

A total of eight participants were participated in the qualitative part of data.

Theme one physicians scheduled visit

One area of concern in this in-depth interview was about the primary care physicians and Nephrologists. More than half of the participants were not pleased with the primary care physicians and all most all were dissatisfied with nephrologists. Most of the participants were not pleased with the way laboratory requested by physicians and handled. The sample is taken but the result is not appropriately notified and kept with their chart or missing

This was reflected by opinion of the participants as follows:-

A 52 years old man 5years on dialysis said the nephrologists are totally ignore the patients on hemo-dilysis even they don't visit us unless we sick critically. They order us to give a blood

sample but they don't tell us our results and progress. This participant said I have decided not to give my blood for laboratory test.

This idea also supported by another participant.

A 46years old man four years on dialysis gave his feeling this way he said I didn't get help from nephrologists, even I have been taking my medicine based on the order I have been told in private dialysis unit before three years. I have no idea about my current hemoglobin level and other laboratory results but I am still following the trained I had at private dialysis center

The other participant also gave his idea which support the above ideas

A60 years old man, three years on dialysis stated that the primary care physicians are helping us but the nephrologists are not willing to visit us regularly. He said we have been followed by general practitioners but there is a knowledge gap, so here the nephrologists should be responsible for what others physicians do. This participant said in my opinion the patients on hemo-dialysis should be followed by nephrologists. This participant added his idea that we made a laboratory test each month but of no value, because no one tell us any change in our results.

55 years old woman said that, I have decided that not to give my blood after wards because, she said most of the time our sample or result is missing after we gave blood for investigation and even though the result is returned from laboratory neither a nurse nor a physician telling about our results.

A 48 years old man five years on dialysis stated that physicians are no more visiting us unless we sick critically and called by nurses. I don't t know the reason why they don't follow us we have trusted in them next to Allah.

As it was mentioned above the majority of the participants were not satisfied with the physician regular visit, this part is supporting the quantitative data in which the satisfaction level scoring low on likert scale measure

Theme two fee for dialysis

Another area of interest which most frequently rose was the payment for hemo-dialysis and medications. Really! It was headache for each and every one of the participant in this survey. All the participants were very dissatisfied with payment and give their comment as follows.

A 52 years old man five years on dialysis said I have run out of my property the government should subsidize the cost or if possible making the cost for dialysis and medication for patients on hemo-dialysis charge free.

A 46 years old man four years on dialysis said that I have been dialyzed with a money collected from community now I am run out of that money .I don't know what I have to do after wards.

A 34 years old man three years on dialysis stated that I got money for dialysis by begging from community at mosque. My people have been helping me this way for about three years, I am tired of it, and I prefer death after this. He mentioned ;I am coming from sendafa ,even I paid 80 birr per day for transportation only ,which is a further headache to me he said.

A 55 years old lady state that my big questions is for government; she said I can say that 75% of the patients on hemo-dialysis are poor of the poorest why not the government is making dialysis service charge free as other country. I am personally suffering of the cost not only for dialysis also the cost for medications, laboratory and transportation to come here and go home three times per week. Really! Really! It's painful.

Another participant supported the above ideas as follows:-

A 48 years old man five years on dialysis said, Imagine how it is difficult to sustain life by paying more than two thousand birr each week. Beside this I am a house lead. My family is waiting my hands. I have spent my life for the last five years this way .May Allah override this problem from mankind. It is very serious thing a number of people in the city run out of their property and finally dying leaving their family to poverty.

Theme three communications with nurses

The other area of concern that, the participants were asked is; about nurses; regarding their duties, responsibilities, commitment, their communication with clients, skills and their behavior. Even though some participants were not satisfied with few nurses technical skills and behavior; Most of the participants were pleased with nurses' skill, communication and behavior, this data is supporting the quantitative part in which most of the participants gave high score on likert scale measure.

These ideas were supported by participants' statement as follows:-

A 34 years old man six years on hemo-dialysis said I am satisfied with nurses' activities more or less, even though some gaps are visible regarding taking history, asking about fluid and diet intake and also the advice they provided based on laboratory results.

52 years old man four years on dialysis repeated the same thing that by saying nurses are eager to help us as much as they can even though there is a discrepancy among their skills.

A 55 years old woman said that the majority of nurses are very kind, polite and they are good in helping us except few nurses who lacks the ethics of the profession.

A 46years old man four years on dialysis forwarded his idea regarding nurses' communication

A few nurses are not good, they don't like a patient who asks for his right or comments them. He stated that I know two nurses who have never connected me to machine for the last two years; because, I had commented them that, change your glove, while they were going to cannulating me. Since that day even they didn't greet me while I have been in the unit.

Theme four: role of supporting staffs

The fourth area of concern was about supporting staffs (Dietician, biomedical engineers, cleaners and runners). Supporting staffs like cleaners and runners are very important since medicine is a team work.

The participants' opinions on this area were stated as follow:-

A 52 years old man five years on dialysis stated that the dieticians are equally important as other health care providers, because I have seen in private dialysis units and dialysis in foreign countries, before hemo –dialysis initiated, what strictly done is, the advice on diet and fluid that has been taken freely, in moderation and those strictly forbidden but there is no dietician nor nutritionist in our set up. On the other hand he said I am pleased with neatness of the room .The cleaners are doing their job well but the runners are not available all the time and missing their duties. Regarding the biomedical engineers even though they are few in numbers they are doing their job in good way.

This idea was also supported by other participant

A 34 years old man six years on dialysis stated that there should be dietician or nutritionist who gives advice on what we eat and drink since we are not getting such advice both from nurses and physicians. He said I am satisfied with setup and its cleanness. The cleaners are best but the runners are not available most of the time and they are not punctual.

Other participant expressed his feeling as follow:-

A 60 years old man three years on dialysis (nurse in professional back ground) said I am asking the nurses always what type of food and drink we have to take; but, I couldn't get knowledge based answer from them. For myself since I have health professional back ground I can Google no problem, but my worry is for my friends on the same problem who have no any understanding on this. So I have supposed that there should be dietician in the unit who strictly follow us about our diet and fluid we have take or restrain ourselves from. On the other hand from the supporting staffs, I am very pleased with cleaners but the biomedical engineers and runners are not available as they needed. Sometimes our dialysis was interrupted due to technical error on machine. In such condition the technician or biomedical engineers are called on phone from their home or somewhere else instead of being in the compound or nearby unit.

The statement of the participants indicates that the dialysis units have no dieticians who are very essential for renal patients. On the other hand the participants were pleased with cleaners but other supporting staffs like, runners and technicians were not available as they needed, this data also supporting the quantitative part in which most of the participants were pleased with the neatness of the unit and were not comfortable with others supporting staffs activities.

Summary of findings on the qualitative data

The finding of qualitative data indicated that, the participants were not satisfied with the overall dialysis care as it was explained by each participant responses on the in depth interview part.

6. DISCUSSION

The health care system is basically a service based industry and customer satisfaction is as important as in other service-oriented sectors. Patient satisfaction and their expectations of care are valid indicators of quality health care dimension in the area of health care service. It is very important to assess the prevalence of hospitalized patient with such chronic renal failure. Hence, dialysis therapy is a very complex and challenging area of patient care (20). In contrast to other studies throughout the globe, the finding of this study showed that the percentage of satisfaction was low (41.6), this data also supported by qualitative data in which the participants were not satisfied with over all care in dialysis Units. Based on the findings, the overall proportion of participants who were satisfied with the dialysis care service were found to be 41.6%. This finding lower with study conducted in Sao polo, Brazil 53 % (13).

This study finding is also incongruent with study conducted in Kenya at renal unit of Kenyatta National hospital in which more than one half of study participants were satisfied (10).

This study is somewhat lower than study conducted in Egypt Beni-Suef University Hospital with findings 50% satisfied with the care provided in dialysis unit (8).

In contrast to this study finding study conducted in Iraq, at university of Baghdad there was high satisfaction with care (14).

The difference could be due to socio cultural, economic and health service quality. This might also attributed to study period difference due to the increase in expectation of patients to the service they are going to receive with rapid advancement in technology and peoples thinking.

Even if greater percentage of overall satisfaction was reported in different literatures, there is a difference in satisfaction level in different aspects of focused health care.

The findings of this study like that of study conducted in Baghdad, Iraq indicated that there is moderate satisfaction to clinical nursing care, communication /patient –nurse relationship, technical quality of nurse and mild satisfaction toward nurses welcome to the unit ,post dialysis medication administration, initiation of dialysis and stay on machine. Like study conducted in Iraq, Egypt and Kenya no statistical significant difference between (gender, age, religion, Ethnicity, marital status, type of vascular access duration of hemo-dialysis). On the other hand the finding of this study reveals that there is a statistical significant difference between patients' income, educational status,, frequency of hem dialysis and residence.

The level of satisfaction with the provided care for vascular access and communication with the staff was rated higher (81.4%) and (69.9%) respectively among twenty items.

A large number of participants stated that they were barely informed or not informed at all about their post dialysis results or diagnostic tests, and their progress or advice on the result (92.2%) this finding is incomparable with a study done at Kenyatta National Hospital, in Kenya (47.7%). Also the observation and physical examination prior to dialysis reported low in this study finding 14% and 8 % respectively) as compared to the study conducted in Kenyatta National hospital, which is (43.2% and 50%) respectively(10).

In contrast to the study conducted in Beni Yusuf hospital, Egypt (64.6%) and Saupolo ,brazil (83%)the time spent with physician reported very low (36.1%) .

The punctuality of nurses in connecting the patients on dialysis machine is low (20%) as compared to the study conducted in Sao Paulo ,Brazil(83%).

This might be due to socio economic, the staff number and health service quality difference of the country.

On the other hand the technical quality of nurses were reported high [61.1%] when compared to the study finding of Beni Yusuf Hospital Egypt [53%].

This might be due to study period difference and advancement in technology in hiring nurses' skill.

Research points out patients' being very satisfied, as they feel safe while connected to the device (50.6%), and understanding the importance of laboratory tests, 40.7% said they were aware (13).

In contrast to international survey conducted in four countries (Argentina, Hungary, Poland and Portugal) age has no significant association, however similar to this study residence or the distance from dialysis center has a significant association with patients' satisfaction $p=.026(2)$..

7. LIMITATIONS AND STRENGTH OF THE STUDY

7.1. Strengths

- One of the strength of this study is it was supported by qualitative data (utilization of a triangulation mixed method designed for the study).
- Multivariate analysis was used to control the effect of confounding variable

7.2. Limitations:-

- The fact that studies conducted so far in study area are limited on the topic, no enough literatures to discuss with Ethiopian context
- This study may not be representative because of its sampling method (purposive) and few sample size.
- This study is also vulnerable for the all drawbacks of cross section study design.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1. Conclusions

This study has shown that the participants have lower levels of satisfaction concerning the care given in dialysis unit. It has to be strongly stressed that there is a great need for clinical practices, regarding the care provided in dialysis units in order to optimize the hospital care for dialysis clients. There is quite differences between nurses' care and physicians' visit to fulfill clients needs was identified. All most all the participants had a complaint on regular physician visit for their need which needs further investigations for the reason. Again this study finding reveals the most common cause of dissatisfaction was the payment for the service and the advice given following the investigation results. Hence the clinician should focus on this area to overcome the problem that repeatedly raised and cause the clients to feel unhappy.

The value of assessing clients satisfaction is increasingly important and necessary because' satisfaction can be used as an indicator of the quality of care that is experienced by clients.

8.2. Recommendations

1. for policy makers

- ✓ An attempt should be made dialysis free of charge and all other service related to it should be made affordable.
- ✓ Working on prevention of kidney disease and awareness creation at national level.

2. for hospital managers

- ✓ The hospital administrator should improve the accessibility of services, like having dialysis machines that are proportional to the clients seeking the service including consumable materials for dialysis, investigations modalities and laboratory instruments, pharmacies.
- ✓ Reducing waiting time to obtain healthcare services by increasing the proportion of health care providers and all others supporting staffs with the number of customers so as to make maximum utilization of their services and in turn to benefit the clients.
- ✓ As the dialysis is a lifelong treatment unless kidney transplant is done and each client connected to dialysis machine for minimum of twelve hours per week, hence; the clients

should be reassured and attention distraction condition like an entertaining Tv channels should be accessible.

- ✓ It will be better for health care managers to consider adequacy of patient care and treatment, physical facility of the hospital, communication and information to the clients

3. for health care providers

- ✓ Health care provider should give attention to enhance the level of clients' satisfaction since patients' satisfaction a way of quality care measure.
- ✓ Educating the clients about the treatment and prevention of complications related to hemo-dialysis.
- ✓ Creating an awareness about kidney transplantation for relative to alleviate the problem associated with the cost and suffering from hemo -dialysis.
- Finally, I would like to recommend further more large scale and prospective study is necessary to improve patient satisfaction in related to the service provided in dialysis units/centers at national level.

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Annex I: Information Sheet:

Addis Ababa University
College of Health Sciences
School of Nursing and Midwifery
Department Of Nursing

How are you! I am _____ from _____

I am here to collect data on behalf Semien ketema a second year Msc student at Addis Ababa university school of Allied health sciences and Department of nursing and Midwifery. With the title of study, assessment of Patients' Satisfaction with Care at selected governmental Dialysis unit. This study will be conducted in three selected governmental dialysis units in Addis Ababa.

The objective of the study is to assess patients satisfaction with care provided in dialysis units of governmental hospital in Addis Ababa.

In this study data will be collected from the patients who are attending in dialysis unit. You are an important to be included in this study and therefore I would like to appreciate if you could allot some valuable time to respond for interview questionnaires.

Participation

Your participation is voluntary and your are not obligated to answer any questions that you do not want to answer. If you fill discomfort with any question, it's your right to with draw at any time.

Benefit and risk

Although this study may not benefit you directly, the finding of this study will provide recommendation on the care given to patients on maintenance hemo –dialysis.

Confidentiality

No personal information will be identified in the data processing and with publication of the study results. Your name will not be mentioned in this study and has no any connection with the information you will provide to us. All information you share us will be kept strictly confidential. The collected data will only be used for the intended purpose.

Contact address: If you have any doubt regarding to the study; please contact and speak to the Principal investigator: Semein Ketema phone number: 0911859941 or 0925753126

Email Adress: -semien.ketema@yahoo.com

Investigator's Name _____ signature _____ date __/__/2018

Data collector's Name _____ signature _____ date __/__/2018

Annex II: Consent Form

In signing this document, I am giving my consent to participate in the study entitled, “Assessment of Patients satisfaction with care provided at governmental dialysis units, in Addis Ababa”. I have been informed that the purpose of this study is to assess patient’s satisfaction with care in dialysis units in Addis Ababa. I have understood that the participation in this study is entirely voluntarily. I have been told that the response to the questions will not be given to anyone else except the Principal Investigator for managing and analyzing of the collected data and no reports of this study ever identify me in any way. I have also been informed that my participation or not participating and also not giving response to questions will not have any effect on me. I have also understood the participation on this study has no risk. For any questions and doubt I can contact the Principal Investigator via the following address.

Semien Ketema Tel.091185994or 0925753126, Email (semien.ketema@yahoo.com)

Therefore,

If you would like to participate in this study, would you please confirm it by signing here?, If no please thanks the participant and skip to the next one.

Thank you very much.

Participant signature _____ date _____

Data collector signature _____ date _____

Principalinvestigator signature _____ date _____

Results of questionnaire

1. Completed

2. Respondent not available

3. Refused

4 Partially completed

Code of questionnaire _____

Principal Investigator name _____ signature _____

Annex III: Questionnaires for quantitative approach

Addis Ababa University

College of Health Sciences

School of Nursing and Midwifery

Department Of Nursing

Date _____

Code number of the checklist _____

Part I: Questions related to socio demographic characteristics

Part II: Questions on Level of Patients satisfaction and associated factors

Part I. Socio Demographic characteristics of patients

No	Questions	Response
101	Age	_____
102	Sex	1. Male 2. Female
103	Marital status	1.single 3.Divorced 2.Married 4.Widowed5.Other.specfiy_____
104	Educational status	1.Illiterate 3.Secondary 2.primary 4.College and Above
105	Occupation	1.Govermental2.Private employee 3.NGo 4.Jobless 5.Student 6.Housewife 7.Other.specify__
106	Income per month	_____

107	Residency	1.Live in Addis Ababa 2.OutofAddisAbaba (specify)_____
108	How long have you been on dialysis?	_____
109	What type of vascular access have you been using?	_____
110	Who is your main care giver?	1.self 2.children 3.wife 4.husband 5.other relative
111	How often you make dialysis per week	_____

Part II. Level of patients' satisfaction and associated factors

1=very dissatisfied, 2=dissatisfied, 3=neutral, 4=satisfaied,5=dissatisfied

112	Satisfaction with the way nurses' welcome you to the Renal unit	1	2	3	4	5
113	Nurses explanation for long waiting time and delays					
114	Handling of complaints regarding nursing services					
115	Nurses' attitudes as they attend to					
116	Nurses observation taken prior to dialysis					
117	Nurses examination (physical)Prior to dialysis					
118	History taking of previous dialysis and current history of water and diet intake					

119	Nurses observation taken post dialysis prior to administering post dialysis medication					
201	Nurses give advice in view of post dialysis results					
202	Satisfaction with the way catheter site and wounds are dressed by nurses					
203	Nurses response during technical hitch or alarm failure					
204	Satisfaction with the way nurses initiate dialysis					
205	Communication with the health care worker					
206	Time spent with your Physicians					
207	The stay on dialysis machine					
208	The physical environment of the unit					
209	Financial condition of the institution					
210	Accessibility and convenience of service					
211	Technical quality of nurses					
212	Overall Satisfaction with service					

ANNEX IV.(Information sheet Amahric version)

የመረጃ ቅጽ

ስዲስ ስበባ ዩኒቨርሲቲ

የጤና ሳይንስ ኮሌጅ

የነርቲንግ ና ሚዲዌሬት ትምህርት ክፍል

ጤና ደስሞስኝ ስሜ _____ ደባሳ። የመጣሁት ከስዲስ ስበባ ዩኒቨርሲቲ ሲሆን ስዲስ የተገኘሁት በዳደሪስ ህክምና ስድስት ወር ህክምና በዳደሪስ ክፍል ውስጥ በሚሰጠው ስገልግሎት ሳይ ያሳቸውን ስርዓታት ስሙዳሪስ ሲሆን ደህንነት የሚካሄደው በስዲስ ስበባ ሚንት በተመረጡ ሶስት የመንግስት የዳደሪስ ስገልግሎት በሚሰጡት ተቋማት ሳይ ነው።

የጥናቱ ዓላማ:-

የዝህ ጥናት ዋና ዓላማ በዳደሪስ ክፍል ውስጥ ስድስት ወር ታካሚዎች የሚሰጠውን ስገልግሎት ስሙዳሪስ ነው። በዝህ ጥናት መረጃ የሚሰጠው የዳደሪስ ህክምና ስድስት ወር ታካሚዎች ሲሆን በዝህ ጥናት የሮሶ ተሳትፎ ጠቃሚ ስለሆነ የዝህ ጥናት ስካል ሆኖ ስምን ጠይቅ ትጥቃቄ ከወደ ጊዜ የተወሰነ ደቂቃ ስሞትን መሰስ ቢሰጡን በጣም ደስ ይሰናል።

ተሳትፎ:-

በዝህ ጥናት መሳተፍ በፈቃደኝነት ሳይ የተመሰረተ ሲሆን መሳተፍ ያለመሳተፍ መብት የተጠበቀ ነው። በትኛውም ጊዜ ማቅረብ ይቻላል። ስንደሁም ያለተመቻቸን ጥቃቄ መዝገብ ይቻላል።

ጥቅም ና ጉዳት:

በዝህ ጥናት መሳተፍ ምንም ዓይነት ጉዳት ያደርገዎትም ነገር ግን በዝህ ጥናት በመሳተፍ ቀጥተኛ ባይሆንም በተዘዋዋሪ የጥናቱ ውጤት መሰረት ዓርጎ በሚሰጠው ዓስታዮት የስገልግሎት ስሙዳሪስ ስድስት ወር ይቻላል።

ምስጢራዊነት:-

በትኛውም ዓይነት ሌሌታ የሮሶ የግስ መረጃ ስራ ማካሄድ ተሳትፎ ያደሰጥም፤ ስንደሁም ስሞ በመረጃ ቅጽ ውስጥ ስደጠቀስም። የሚሰጡን መረጃ ስታቀደስት ዓላማ ብቻ የሚወጣ ይሆናል።

ስድራሻ:-

በጥናቱ ዙርያ ያሱትን ማንኛውንም ዓይነት ጥያቄ ከዝነ በታች በተገሰደው ስድራሻ የጥናቱን ዋና ተመራማሪ ማናገር ይቻላል።

ዋና ተመራማሪ፡-ሰሜን ከተማ(ስ.ቁ0911859941/0925753126፤ኢ.ሜል፡-semien.ketema@yahoo.com)

የዋና ተመራማሪ ስም _____ ስም _____ ቀን _____

የመረጃ ሰብሳቢ ስም _____ ስም _____ ቀን _____

ANNEX V. (Consent Amahric version)

የስምምነት ቅጽ

ጤና ደስጥሰኝ ስሜ _____ ደባሳጵ። የመጣሁት ከአዲስ አበባ ዩኒቨርሲቲ ሲሆን እዚህ የተገኘሁት በዳደሰሲስ ህክምና እያገኙ ባሉ ህሙማን በዳደሰሲስ ክፍል ውስጥ በሚሰጠው አገልግሎት ሳይደሳቸውን እርካታ ስመዳስሰ ሲሆን ደህጥናት የሚካሄደው በአዲስ አበባ በ ሚገኙት በተመረጡ ሶስት የመንግስት የዳደሰሲስ አገልግሎት በሚሰጡት ተቋማት ሳይ ነው።

በዚህ ጥናት ተካተው ያሰውን መረጃ በመስጠት ጠቃሚ ስለሆነ ስዚህ ቃለመጠይቅ ፍቃደኛ ሆነው ውድ ጊዜዎን በመስጠት አመሰግናለሁ። የሚሰጡን መረጃ ሚስጥራዊነቱ የተጠበቀ ሲሆን እንዲሁም በዚህ ጥናት መሳተፍ በፍቃደኝነት ሳይ የተሞሰረት ነው። የመሳተፍ ናደስመሳተፍ መብት የተጠበቀ ሲሆን ነገርግን ደህንጥናት ከግምት በማስገባት ጥናቱ የአገልግሎት አሰጣጡን ለማሻሻል፣ የጤና ባለሙያዎች፣ ስጤና ተቋም እና ስጤና ጥበቃ ሚኒስቴር ግብዓት ስለሚሆን የእርሶ በዚህ ጥናት መሳተፍ የበኩሉን አስተዋግ እንዲያደርጉ ደረዳለሁ።

አድራሻ፡- በዚህ ጥናት ዙሪያ ያሉትን ማንኛውም አደነት ጥያቄ ወይም ቅሬታ የጥናቱን ዋና ተመራማሪ

አቶ ሰሜን ከተማ ማናገገር ይቻላል።

ስልክ ቁጥር፡- 0911859941 / 0925753126

ጥናቱን ተረድቼ ፍቃደኛ መሆኔን በጨማይ አረጋግጣለሁ።

የተሳታፊ ፊርማ _____

ቀን፡- _____ ወር _____ ዓ.ም _____

የመረጃ ሰብሳቢ ስም _____

ፊርማ _____

ቀን፡- _____ ወር _____ ዓ.ም _____

ከሳይ የተጠቀሰውን መረጃ ተረድተው በጥናቱ ስመሳተፍ ፍቃደኛ ነኝ ?

መልሱ አዎ ከሆነ ደቀጥሶ አደዳለሁ ከሆነ አመሰግኖ ደሰናበቱ



ANNEX VI (Questionnaire Amharic Version)

ስዲስ አበባ ዩኒቨርሲቲ

የጤና ሳይንስ ኮሌጅ

የነርቲንግ ና የሚዲዌል ስምዘርት ክፍል

ቀን _____

የጥናቱ መስዎ ቁጥር _____

ክፍል ስንድ የተሳተፈው/ዋ ግሳዊ መረጃ ጥያቄዎች

101	ሰድሞ _____	_____
102	ጾታ	1.ወንድ 2. ሴት
103	የጋብቻ ሁኔታ	1.ያሳገባ/ች 2.ያገባ/ች 3.የፎታ/ች 4.በሞት የተሰየ/ች 5.ሴሳ ካስ ይገሰዩ _____
104	የትምህርት ሁኔታ	1.ያስተማሪ 2.የመጀመሪያ ደረጃ 3.ሁለተኛ ደረጃ 4.ኮሌጅና ከ ዚያበሳዳ
105	የስራ ሁኔታ	1.የመንግስት 2.የግብር ተቀማሪ 3.የመንግስታዊ ያሰሪ 4.ሴሳ ካስ ይገሰዩ

106	ወራዊ ገቢ	_____
107	የመኖሪ ስፍራ	1. ስዲስ ስበባ 2. ከ ስዲስ ስበባ ውጭ ዳገስቱ()
108	ዳደሰሲስ ከጃመራ ስንት ጊዜዎ ነው?	_____
109	ስዳስሲስ የሚጠቀሙት Access የትኛው ነው?	1. ካቴተር 2. ፊስቱሳ 3. ግራፍት
110	በስብዛኛው ጊዜ ስብረት የሚሆን ወይም የሚያስተምሩት ስው ማን ነው?	1. ስራሴ 2. ስጃቼ 3. ሚስቴ 4. ባስ 5. ሴሳ ዘመቻ
111	በሳምንት ስንተ ቀን ዳደሰሲስ ያደርጋሉ?	_____

ከታከሚዉ የስርካታ ዳረጃ ና ተያያዥ ጉዳዮችን የያዙ መጠዶቅቅ

1-በጣምስሰረካይም 2- ስሰረካይም 3- ገሰሰተኛ

4-ረክቻሰሰ 5-በጣምረክቻሰሰ

		1	2	3	4	5
112	በዳሰሲስ ክፍሰ የነርሶች ስቀባበሰ					
113	ስረኛም ጊዜ ሲያስጠብቅዎ/ ሲቅደብዎ ስውን ነገር					

	የመንገድ ሁኔታ					
114	አገልግሎት አሰጣጡ ሳይኖሩ የነገሶች ቅሬታ የማስተናገድ ሁኔታ					
115	ከታካሚው ጋር ያሳቸውን የነገሶች ባህሪ					
116	ዳዎሲሲስ ከመጀመሩ በፊት በነገሶች የሚደረግ ምስክር					
117	ዳዎሲሲስ ከመጀመሩ በፊት በነገሶች የሚደረግ አካላዊ መርመራ					
118	አሳሳቂው የዳዎሲሲስ ሁኔታ የምግብ ና የፎሳፊስ አውሳሰድ መጠየቅ					
119	ከዳዎሲሲስ በኋላ የሚሰጠውን መዳንት ከመሰጠቱ በፊት በነገሶች የሚደረግ ምስክር					
201	ከዳዎሲሲስ በኋላ ባሰጠው የምርመራ ውጤት ሳይኖሩ ነገሶች በሚሰጡት ምክር					
202	ነገሶች Access የማድረግ ና የቅሬታ የማሸግ ሁኔታ					
203	ማሸነፍ ሲጠፋ ወይም አሳይሞ ሲደርግ ስንዲሁም ስታካሚ ፍላጎት ምሳሌ የመስጠት ሳይኖሩ የነገሶች ሁኔታ					
204	ነገሶች ዳዎሲሲስ የሚያስጀምሩበት ሁኔታ					
205	ነገሶች ጋር ያሉትን መግባባት					
206	ከሀኪሞች ጋር ያሉትን ቅድመ					
207	በዳዎሲሲስ ማሸነፍ ሳይኖሩ ያሰጡት ቅድመ					
208	የህክምና መስጫ አፍሰ ገደብ					
209	የጤና ተቋሙ የክፍያ ሁኔታ					

210	የአገልግሎቱ መስጫ ስፍራ መገኛ ና ምቹት					
211	የነገሶች ክህሎትና ችሎታ					
212	አጠቃላይ የአገልግሎት አሰጣጥ ሁኔታ					

ANNEX VII (Consent for In-depth interview)

Hello good morning/good after noon **I am semien Ketema** Msc student At Addis Ababa

University school of allied Health sciences and department of Nursing and midwifery I am here to conduct a research on patients satisfaction towards care given in dialysis units of governmental hospitals. I am seeking of your participation on this study. Your participation is voluntary, confidential and you can with draw you participation at any time. I am going to record your voice on our conversation with this electronic device and take a note for the sake the study, are you willing to participate? If ok continue, if no, say thanks and skip to the next participant.

In-depth interview questions

1. What is your opinion on general service of the unit and your satisfaction towards it?
2. How do you explain the nurses in the dialysis unit and your satisfaction towards their activities and behavior?
3. What do you think about primary care Physicians and Nephrologists and your satisfaction with their role?
4. Are there renal dieticians, biomedical engineers and supporting staffs in the unit? If yes, what is your opinion on role and you satisfaction with their role?
5. How does the laboratory sample is requested and handled and your satisfaction towards these activities?
6. What is your opinion on fee for dialysis and other services and also your satisfaction towards these?

ANNEX VIII (Consent for In-depth interview Amahric Version)

የቃስ መጠይቅ የስምምነት ቅጽ

ጤና ደሰጥሰኝ ስሜ ስሜን ከተማ ደባሳስ፤የአዲስ አበባ ዩኒቨርሲቲ በጤና ሳይንስ ትምህርት ክፍል የነርቪየን ዲፓርትመንት የቤስተኛ ዲግሪ ተመራቂ ተማሪ ሲሆን፤እኚህ የተገኘሁት የመመሪቅዎ ይሬን የዳሲሲስ ህክምና እያገኙ ባሉት ታካሚ የእረካታ ደረጃ መዳሰስ በሚሰ ርዕስ ሲሆን ይህም ስታኮሚዎች እየተሰጠ ያሰውን እገልግሎት ስሰጣሁ ስመገመጋም ና ታካሚዉ በእገልግሎቱ ሳይ ያሰውን የእረካታ ደረጃን ስመዳሰስ ደረዳሰ።እርሶ በዘህ ግናት በመሳተፍ በሚያገኙት እገልግሎት ሳይ ምንም እደነት ተሰኖ እያሳድረም፤የመሳተፍ ና ያስመሳተፍ መብቶ የተጠበቀ ነዉ።በትኛዉም ጊዜ ማቻረሁ ይቻላል።ይህ ስቃስምሰሰሱ ደረዳ ዘንድየተዘጋጃ የድመል መቀጃ መሳርዎ ሲሆን የሚሰጡኝ መረጃ በኔና በርሶ መካከል የሚቀር ሚሰጠራዊነቱ የተጠበቀ ነዉ።ስቃስመጠይቅ ፈቃዳኛ ኖት? መሰሉ እዎ ከሆነ ይቀጥሱ፤ መሰሉ እደደሰም ከሆነ ስመስግኖ ይሰናበቱ።

የቃሰመጠደቅ ጥያቄዎች

- 1.አጠቃላይ በዳዎሲሲስ አገልግሎት ላይ ያሉትን አስተያየት ያገኛሉ? “እባኩን ተጨማሪ መረጃ ለማግኘት ያወጣጡ”!
- 2.በነገሶች ባህሪ ና መግባባቶች ዙፋይ ያሉትን አስተያየት ያገኛሉ? “እባኩን ተጨማሪ መረጃ ለማግኘት ያወጣጡ”!
- 3.በሃክሞች ክትትል ማድረግ ዙፋይ ያሉትን አስተያየት ያገኛሉ?”እባኩን ተጨማሪ መረጃ ለማግኘት ያወጣጡ”!
- 4.የባዮሙድካል ፤ የሰነዎችን ባለሙያዎች አሰጣጥ ስለ ስነ ስራዎች ረዳት አስተዳደር አሰጣጥ ? ካሉ በነገሱ ማና ዙፋይ ያሉትን አስተያየት? “እባኩን ተጨማሪ መረጃ ለማግኘት ያወጣጡ”!
- 5.የሳብራቶሪ ናሙና የሚታዘዝበት ሁኔታ ፤ አድጋሚ ና ስታክሚዳ የሚነገርበት ሁኔታ?
- 6.በዳሲሲስ ና ሰነዎች አገልግሎት የሚከፈል ክፍያ ዙፋይ ያሉት አስተያየት? “እባኩን ተጨማሪ መረጃ ለማግኘት ያወጣጡ”!