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ASSESSMENT OF REHABILITATION SERVICE UTILIZATION AND ITS BARRIERS AT CANCER CENTERS OF BLACK LION GENERAL SPECIALIZED HOSPITAL, ADDIS ABABA ETHIOPIA, 2014

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A Thesis Submitted to the School of Graduate Studies, Addis Ababa University, and College of Health Sciences, School of Allied Health Sciences, and Department of Nursing and Midwifery in Partial Fulfillment of the Requirements for Degree of Master in Adult Health Nursing

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Approval by the board of examiners

This thesis by yihenew mekonen is accepted by the Board of Examiners as satisfying thesis requirement for the Degree of Master of Science in child Health Nursing.

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ACRONOMY AND ABBREVIATIONS

ADL	Activity of Daily Living
CARF	Commission for Accreditation of Rehabilitation Facilitation
CT	Computed Tomography
ETB	Ethiopian Birr
FMOH	Federal Ministry of Health
GI	Gastro Intestinal
MRI	Magnetic Resonance Imaging
NGO	Non Governmental Organizations
OT	Oral Therapy
PT	Physical Therapy
QOL	Quality Of Life

SPCS Supportive and Palliative Care Service

SPSS Statistical Package of Social Sciences

USA United States of America

WHO World Health Organization

ABSTRACT

Background- Cancer and its treatment may result in physical and mental impairment because of this cancer survivor increasing attention has been given to improving functional recovery that is oncology rehabilitation. Rehabilitation is the key of functional recovery. In Ethiopia, in 2010 there were greater than 2,000 adult and 200 pediatrics cancer patients annually but in 2013/2014 the estimated number of cancer patients was 2040 monthly from available patient record.

Objective – To assess the oncology rehabilitation service utilization and its determinants among cancer patients at cancer center of Black Lion General specialized Hospital.

Methods- Across sectional quantitative study was conducted for 423 cancer patients comes for treatment to the cancer center during the study period. All patients greater than 18 years old and mentally well were included in the study and the data was processed and analyzed by using EPI data (version 3.1) and SPSS (version 16.0) soft ware. **Result** - Out of the participants of this study (388) 26% of respondents were involved at least once in rehabilitation service. The leading types of cancer at cancer center breast cancer (25%) and followed by colorectal cancer (20.6%) and cervical cancer (14.7%). Main rehabilitation services given were nutritional and psychological support. Unavailability, lack of professionals and cost among the barriers

Conclusion and recommendation majority of patients have not gained comprehensive appropriate rehabilitation services so that increase the knowledge of the professionals and comprehensive programs are needed

Keywords- Cancer rehabilitation, Oncology service Utilization, barriers of rehabilitation service utilization

1: INTRODUCTION

1.1 Background

Globally cancer has become a major public health problem and an increasingly important contributor to the burden of disease. Based on the most recent available international data, in 2011, there were an estimated 12.7 million new cancer cases, 7.6 million deaths from cancer, and 28 million persons alive with cancer within five years from the initial diagnosis(1-2).In the United States, with an estimated 569,490 deaths from cancer occurring in 2010 Although the incidence of cancer is increasing, improvements in early diagnosis and treatment have led to significantly increased survival rates in recent years (3-4).

The number of cancer survivors has exceeded 11 million and continues to grow. Cancer, especially in its advanced form and despite treatment, is often accompanied by significant symptom burden, psychosocial distress, and poor quality of life(5-6). Unfortunately, cancer treatments may result in physical and mental impairment, including dysfunction of the nervous, musculoskeletal, and internal organ systems(7-8). In an effort to improve the quality of life of cancer survivors increasing attention has been given to improving functional recovery following treatment. These ongoing problems faced by the patients increase the need for rehabilitation. Several studies have shown that rehabilitation can alleviate post-treatment side effects, maintain quality of life, and improve the survival(9-10).

Rehabilitation refers to a process aimed at enabling persons with disabilities to achieve and maintain their optimal physical, sensory, intellectual, psychiatric, and/or social functional levels, thus providing them with the tools to adapt their lives toward a higher level of independence(11).The rehabilitation takes place in various stages in different forms, such as

Preventive Restorative rehabilitation, Supportive rehabilitation and Palliative rehabilitation therapy (12).An important finding that rehabilitation were underused in the population studied because of different barriers(13).

In Ethiopia, there are lack of cancer centers and rehabilitation centers. According to black lion hospital data there are about 2040 cancer patients under chemotherapy, radiation therapy, follow up and complain treatment other than new diagnosis, within one month in 2014.Even though increased number of cancer patient and need of rehabilitation service, there are no sufficient study done on cancer rehabilitation in this country before, so that this study will provide information on the cancer rehabilitation utilization.

1.2 Statement of the problem

Cancer, especially in its advanced form and despite treatment, is often accompanied by significant symptom burden, psychosocial distress, and poor quality of life. Even cancer treatments may result in physical and mental impairment, including dysfunction of the nervous, musculoskeletal, and internal organ systems. Cancer-related fatigue and deconditioning have also been frequently reported as side effects of cancer and cancer treatments. This all contribute to the impairments and loss of function(14).

When a diagnosis of cancer is made, an overwhelming number of issues will confront the patient, family, and care givers. Major problems are the unknown prognosis, the uncertain response to treatment, and direct or remote effects of the cancer itself. Will there be residua from radical surgical procedures, the toxic side effects of chemotherapy, pain, and stress to patient and family these all affect the patients' performance of daily activities, their jobs or education, or their family relationships(15)

Lehmann and colleagues documented that in the hospital setting, 35% of cancer patients experienced functional loss due to physical weakness, 32% required assistance with performance on ADLs, 23% experienced difficulty with ambulation, and 7% had deficits in transfers(16).Because of this, in an effort to improve the quality of life of cancer survivors increasing attention has been given to improving functional recovery following treatment. Rehabilitation has been proposed as a strategy for restoring patients' functional independence and improving their psychological function(14, 17).

But unmet rehabilitation needs are very common because of different types of barriers such as: expense, time limitations, difficulty in obtaining transportation, lack of knowledge, and lack of referral by physicians. Socio-demographic variables included gender, age, race/ethnicity, lack of awareness of rehabilitation services, and lack of knowledge among family members, a failure of acute-care staff to identify functional impairments, lack of appropriate rehabilitation referral, lack of awareness of rehabilitation services, and lack of knowledge about rehabilitation services among family member also can affect rehabilitation service utilization(18).

In Ethiopia, According to the data from the Black Lion Hospital's oncology unit, in 2010 there were more than 2,000 adult oncology patients and greater than 200 pediatrics patients annually but according to my data in 2013/2014 the estimated number of cancer patients were2040monthly other than new diagnosisthat come for treatment without consider repeated cases. Even if the shooting increment, there areno sufficient cancer centers and there are no organized cancer rehabilitation center for the country. As cancer rehabilitation is a relatively new area of research, there are no enough published articles on the cancer rehabilitation service and factors affecting the service utilization in Ethiopia, even in Africa.

Therefore; the purpose of this study is to provide additional information on the cancer rehabilitation service utilization by patients and factors affecting this service utilization.

1.3 Significance of the study

In Ethiopia there are no enoughpublished studies done on assessing cancer rehabilitation service utilization and its barriers as well as no coordinated program works on cancer rehabilitation service so far, even though cancer rehabilitation service is equally important to the treatment of cancer.

Therefore, the findings from this study will provide information for planners, programmers, policy makers which target on designing and developing cancer rehabilitation service, aimed at addressing cancer rehabilitation at a national level.

The results of this study will also be used as base-line information for health care providers and cancer patients. In addition, researchers in the field could use the result of this study to design further studies at a larger scale both at national level and with robust study design in the future.

2: LITERATURE REVIEW

Literature Review

Concepts and Definitions

Cancer is a systemic disease that directly affects the region of onset and can metastasize to other sites, causing a variety of complications and loss of progressive organ function. The development of the disease may be initially slow or rapidly evolving(19). Cancer diseases and their therapies have short- and long-term negative effects on the quality of life. Thus, it is important to offer patients targeted rehabilitation and integrated care (20). Rehabilitation, covering the following objectives: painkiller and side effect therapy, nutritional and psychosocial support, and optimization of physical and social functioning. The first step of cancer rehabilitation is the primary support to the negative effects of cancer disease and its therapy(21). Oncologists have to be encouraged to share their work with other team specialists: anesthesiologyists for pain therapy, nutritionists for nutritional support, and physical and rehabilitation medicine specialists. Physiotherapists, dietitians, and specialized nurses complete the team. All these figures have to cooperate to symptoms' management of cancer patients (22-23).

The World Health Organization (WHO) describes the scope of rehabilitation as:"a process aimed at enabling persons with disabilities toreach and maintain their optimal physical, sensory, intellectual,psychiatric and/or social functional levels..."rehabilitation can be defined as: the intentional and unintentional behavior of the patient, professional and significant others, aimed at reduction or solving as many problems for the patient as possible or aimed at the preventing of problems. Rehabilitation has physical, psychological and social aspects. Rehabilitation outcomes

can be considered to be an equivalent of quality of life and the terms are often used interchangeably(24).

The rehabilitation takes place in various stages in different forms such as Preventive rehabilitation therapy is started early after the diagnosis of cancer is made, where no significant physical impairment exists, but therapy is started to prevent functional loss. Restorative rehabilitation therapy is directed at the comprehensive restoration of maximum function for patients who have a residual physical impairment and disability. Supportive rehabilitation therapy attempts to increase the self-care skills and mobility of the cancer patient with physical exercises to prevent the effects of immobilization, such as joint impairments, muscle atrophy, weakness, and pressure sores. Palliative rehabilitation therapy aims to increase or maintain the comfort and function of patients with terminal cancer by improving their wellbeing, giving pain relief, avoiding joint impairments and pressure sores, and to provide at least partial self-sufficiency(12)

Cancer rehabilitation service utilization

In study done in USA Philadelphia on supportive and palliative care research the education status of the participants was 27.8% reported an education status of high school or less, 46.7% reported having a college degree, and 24.9% had some graduate or professional education. Overall, 32.9% of the participants were diagnosed with lung cancer, 28.1% with breast cancer, 25.2% with GI cancer, and 15.0%with another type of cancer. Use of supportive and palliative care service of 313 participants, 49.5% reported having used at least one of the services. The most commonly used SPCS were nutritional counseling 26.5% and psychological counseling/psychiatric consultation 29.6%, followed by physical therapy 15.1%, cancer support group 11.4%, palliative

care consultation 8.3%, and cancer rehabilitation consultation 4.0%. Notably, of the 155 patients who used SPCS, 71.6% reported satisfaction with the services they used (25).

In USA study of cancer patients, a total of 73 gynecologic cancer survivors participated in the study; their diagnoses were ovarian cancer 38.4%, cervical cancer 28.8%, endometrial cancer 26.0%, and more than one primary gynecologic cancer 6.8%. The majority of participants 70.6% had received their diagnosis within the previous 2 years. Most 80.6% were 59 years of age or younger. The women's jobs at cancer presentation were in service industries 27.8%, Health Care 23.6%, education, 18.1%, sales , 11.1%, manufacturing, 8.3% of these women were self-employed or business owners, whereas 91.7% worked for an employer. In the first year after cancer presentation, 6.9% were fired, quit to avoid being fired, or were forced out of their jobs by an involuntary reduction in their hours, 18.1% left their jobs because of illness, 66.7% kept working at the job held at cancer presentation, and 8.3%left their jobs because of new priorities, business closure, or moving out of town(26).

From 1 October 2007 to 30 September 2008 in the Regions of Southern and Central Denmark, overall, 52% had participated in at least one rehabilitation activity (Physical activities were used by 42%, psychological by 17%, and work-related/finance-related activities by 12%. The single most used activity was physiotherapy (31%), followed by physical training (15%), psychologist (11%), dietician (10%), alternative practitioner (including acupuncturist or reflexologist) (7%), and social worker (6%) (27).

A retrospective cohort Study done in Taiwan shows that, in 2004, 6.44% of the admitted patients that utilized rehabilitation services had a cancer diagnosis; by 2008 this percentage increased to

7.96%. The utilization rates of rehabilitation services were Physical therapy (PT) and occupational therapy (OT) accounted for 62% and 32% of all rehabilitative treatments offered in 2008. %). The rehabilitation services utilization rate of cancer admissions to the family medicine department increased from 2.03% to 2.87% between 2004 and 2008. In the otolaryngology department, 91% of the rehabilitation services were used by cancer patients. The utilization rate of rehabilitation services by cancer patients in the otolaryngology department increased from 3.28% in 2004 to 4.37% in 2008(28).

Another study done in Taiwan Consisted of 632 patients with breast cancer diagnosed in 2005. The prevalence of rehabilitation use was 16.5%, 13.3%, 13.0%, 13.3%, and 12.8% in each cross-sectional year of 2005, 2006, 2007, 2008, and 2009, respectively. During the 5-year period, 250 rehabilitation users attended 9,691 rehabilitation service visits (an average of 38.8 visits per user). The average number of rehabilitation service visits per user was 16.8, 25.0, 31.1, 24.2, and 23.8 in each cross-sectional year of 2005, 2006, 2007, 2008, and 2009, respectively. Therapy patterns, most rehabilitation therapy occurred as an outpatient service (96.0%). Concerning therapy categories, physical therapy (84.2%) was the most commonly used, followed by occupational therapy (15.4%) and speech/swallowing therapy (0.4%). Physical therapy moderate-moderate degree (60.5%), physical therapy moderate-complicated degree (16.2%), and occupational therapy moderate degree (6.5%) were the most commonly used programs. Out of the rehabilitation service given out patient service is 96 %. On the other hand the inpatient rehabilitation service utilization accompanies 4 %(29)

Barriers of rehabilitation service utilization

Patient perceived barriers to using supportive and palliative care service (SPCS) The most common self-reported barriers to use of SPCS were lack of knowledge of these services (22.4%) and lack of physician referral (23%). These were followed by lack of time (9.1%), difficulty in transportation (6.9%), and expense (8.2%). In an exploratory analysis of social/demographic factors and reported barriers, nonwhites reported lack of physician referral more frequently than did whites (20.4% versus 32.9%) Factors associated with use of SPCS. Women were more likely to use SPCS compared with men (54.2% versus 40.9%). A higher level of education was associated with a higher rate of utilization of SPCS (college or graduate school 53.1% versus high school or less 40.2%). Patients with lung cancer were less likely to use SPCS when compared with breast, GI, and other tumor types (38.8% for lung versus 58.8%, 57.7%, and 42.5% for breast, GI, and other cancers respectively). Patients who had undergone surgery were also significantly more likely to have used SPCS (57.3 versus 40%), and those who were in the post treatment phase used SPCS more than those who were undergoing treatment (62.6% versus 46.1%)(25).

By the research done at Canada on cancer rehabilitation, among respondents who reported having no cancer rehabilitation programme available, the identified potential barriers were, lack of funding (71%) and access to space and equipment (61%) lack of availability of resources/space 61.3 %, Lack of health care professionals with experience in oncology 25.8%, Small oncology clientele 25.8% and Lack of support from administration 23%. Of sites not able to offer a formal oncology rehabilitation program, 55% reported that oncology patients are referred to non-specific rehabilitation programs such as outpatient orthopedics services or private clinics(30).

In a study done at Japan, In a nationwide Japanese survey, 50.8% of institutions stated an "absence of prescriptions for rehabilitation by attending physicians" as the reason for the delayed introduction of rehabilitation for cancer patients; other reasons included insufficient staff (30.4%) and lack of preparation of the institution and necessary facilities (27.1%)(31)

From 1 October 2007 to 30 September 2008 in the Regions of Southern and Central Denmark, Unmet rehabilitation needs after 14 months. Unmet needs were most common for sexual problems (50%) and least common for physical problems (17%).Financial issues were still unsolved for one third. Men were more likely to have emotional unmet needs than women, and higher age was associated with a greater likelihood of unmet needs in all areas, except for physical and financial problems. Compared with patients with breast cancer, unmet needs for physical rehabilitation were more common among patients with colo-rectal, gynecological, and head and neck cancers were the most frequent (5).

Based on the multiple logistics analysis, the associations between each of the outcomes and each of the independent variables are, adjusting for age, gender and information and lack of support were significant. Gender and age are known to be associated with patient needs, as women and younger patients are generally more likely to report unmet needs. The patients' levels of education has shown to influence rehabilitation and information needs (25)

Conceptual frame work

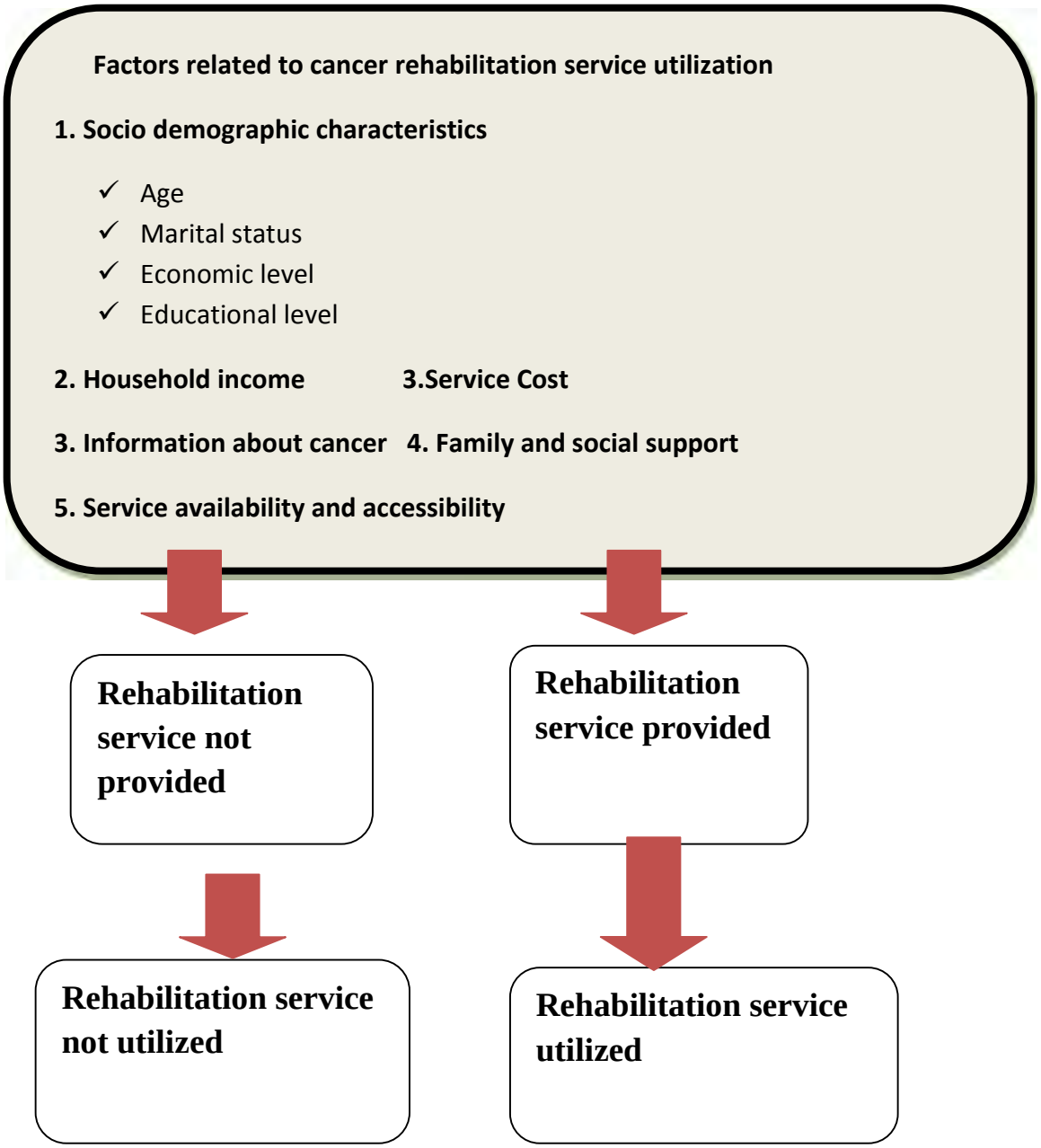


Figure 1: Conceptual Framework of factors affecting oncology rehabilitation service utilization at Black Lion General Specialized Hospital, Addis Ababa, Ethiopia,2014

Based on a review of literature, a conceptual framework was developed specifically by the principal investigator, show relationship among rehabilitation service utilization and the factors

affecting the rehabilitation service utilization. Among those factors are socio demographic of the patients,Household income, Service Cost, Information about cancer Family and social support, Service availability and accessibility. This all factors are identified using the literature review used in this study. When these factors negatively affect utilization of rehabilitation service there will be unmet cancer rehabilitation need. As a result functional dependency will increased

3: STUDY OBJECTIVES

3.1 General objective

To assess the cancer rehabilitation service utilization and its determinants at cancer center of Black Lion General Specialized Hospital Addis Ababa, Ethiopia

3.2 Specific objectives

- To assess themagnitude ofcancer rehabilitation service utilization at the cancer center of Black Lion General Specialized Hospital Addis Ababa, Ethiopia

- To identify factors affecting rehabilitation service utilization at the cancer center of Black Lion General Specialized Hospital Addis Ababa, Ethiopia

4: METHODS AND MATERIALS

4.1 Study Areaand period

This study was conducted at cancer unit of Black lion specialized Hospital, Addis Ababa, Ethiopia from March to April 2014. Addis Ababa is the capital and largest city in Ethiopia, with the population of 3,384,569 according to 2007 population census. It is the capital of African union and other numerous continental and international organizations. According to health indicator of federal ministry of health the total numbers of hospitals in Addis Ababa are 51.

Black lion hospital is the biggest referral public hospital and the main center for cancer registry, early detection, prevention, standard treatment and palliative care. Black Lion Hospital is the training center for undergraduate and postgraduate medical students, dentists, nurses, pharmacists, laboratory technicians, and others, both in under graduate and post graduate level. It has total beds of 678 and the bed reserved for cancer care at oncology unit is 20, there are 201staff physicians, 627 nurses, 26 dedicated oncology nurses, are more than 10 pathologists, 2 hematologists, there are 4 medical oncologists, 4 radiotherapists, 1 pediatric oncologist, 2 specialized surgical oncologist, greater than 30 general and specialist surgeons, 1 CT scanner, 1 MRI scanner and 2 cobalt radiotherapy unit staffs are the human power resource of the hospital. In 2014 the estimated number of cancer patients who get chemotherapy, radiation therapy and other supportive and palliative cares are greater than 24,480with out considering the repetition of client flow. In one month patients enrolled in chemotherapy, radiation therapy, follow up and complain therapy accounts for 2,040 in number.

4.2 STUDY DESIGN

A Cross sectional quantitative study designwas conducted to assess oncology rehabilitation utilization in Black Lion Hospital.

4.4 SOURCE POPULATION AND STUDY POPULATION

4.4.1 SOURCE POPULATION

Source populations of the study were patients with any type of cancer greater than 18 years of age during the data collection period in Black Lion Hospital

4.4.2 STUDY POPULATION

The study population was cancer patientswho came to cancer center fortreatment (chemotherapy, radiation therapy, follow up, and complain therapy as well as supportive and palliative care) during the study period that fulfill the inclusion and exclusion criteria.

4.4.3 INCLUSION AND EXCLUSION CRITERIA

4.4.3.1Inclusion Criteria

All patients who are above 18 years old, mentally stable, not critically ill and patients under treatment and follow up during the time of the study were included.

4.4.3.1. Exclusion Criteria

Those who are newly diagnosed, critically ill,those respondents less than 18 years old, those with hearing impairment, and cognitively impaired to consent were excluded.

4.6 SAMPLING TECHNIQUE AND SAMPLE SIZE

4 .6.1 SAMPLING TECHNIQUE

Convenience sampling methodwas employed. The patients from study population werechosen forconvenience of the study, that is to avoid repetition from different units who took combined therapy that was from chemotherapy and radiation, and because of unpredictable number of patients especially in follow up and complain therapy so that it was difficult to obtained sampling frame, from all patients who meets inclusion criteria(i.e. from chemotherapy, radiation therapy, complains, follow up therapy and supportive and palliative care)were chosen.

4.6.2. SAMPLE SIZE DETERMINATION

In Ethiopia there is no clear published study done on assessing the prevalence of cancer rehabilitation service utilization. Because of this reason, 50% is taken to obtain the maximum sample size. The minimal difference is taken as 5 % (d=5 %) with 95 % confidence of certainty.

To determine the sample size, the formula for single population proportion is used:

$$n = \frac{(Z\ \alpha/2)^2\ p\ (1-p)}{d^2}$$

n = sample size,

Z α/2= significance level at α =0.05

P= expected proportion of adult cancer patients rehabilitation service utilization (50%)

d = margin of error of 0.05

Therefore, using the formula the calculated sample size was 384. So that with 10% nonresponsive rate the total sample size was 423 cancer patients.

4.7 MEASUREMENTS AND VARIABLES

4.7.1 INSTRUMENTS

A 29-item structured Oncology rehabilitation program questionnaire from available literature review that is by adapting a survey from a previous Canadian study with modification, was used to assess the quantitative study in an interview technique (30). A conceptual framework was used for the modification of questionnaires. English and Amharic languageExperts translated the English questionnaire in to understandable Amharic version. After data was collected by using the Amharic version of English questionnaire again the Amharic questionnaire translated to English for clarity and to avoid language barriers during interview.

4.7.2 STUDY VARIABLES

Dependent variable

- Utilizationof rehabilitation service

Independent variables

Socio demographic and economic factors: age, sex, ethnicity, religion, level of education, type of occupation, house hold income, social status.

availability of cancer rehabilitation service

History of cancer in the family

Information about cancer

accessibility of rehabilitation service

Cost

Social and family support

Availability of professionals trained on cancer rehabilitation

4.8 Operational definitions

- **Rehabilitation** is any service given for cancer patients mainly focuses on nutritional support, psychological support and physical therapy
- **Palliative rehabilitation** is components of rehabilitation helps to improve quality of life for end stage cancer
- **Barriers of rehabilitation** is any factor which restricts rehabilitation service utilization
- **underutilization** is not utilize rehabilitation service under full potential/fully
- **unmeet rehabilitation need** is unable to get necessary rehabilitation service

4.9 Data collection procedure

The cancer patientswere selected by cancer care providers on charge based on inclusion criteria, after obtaining informed consent the data collectorsinterviewed the cancer patients in covalent environment. The data was collected by cancer unit nurses and they were given training about purpose of the study, methods of data collection, ethical issues and ways of addressing contingency management skills .the collected data was checked for clarity and completeness by supervisors

4.10 Data quality assurance and management

Data collectors and supervisorswere trained prior to the actual conduct of the data collection.

Data was collected by interviewing participants using semi structuredquestionnaire. TwoBsc Nurses were recruited as supervisor. Data collectors and supervisors weretrained for one day on the purpose of the study, details of the questionnaire, on interviewing techniques, importance of privacy, and insuring confidentiality of the respondents. The original English version of

thequestionnairewas translated into Amharic and translated back into English by experienced professionals to check its consistency. Before actual data collection activities, Pre testwas done on 10% of the subjects in cancer patients other than samples to check the consistency and appropriateness, and then necessary correction was taken before the actual data collection was started. Daily close supervision at the end of every data collection was made; the questionnaire was reviewed and checked for completeness, accuracy and consistency by supervisors and investigator to take timely corrective measures.

4.11 Pre-test of the tool

Before the actual data collection, the questionnaire was pre tested on 10% of similar population in other cancer patients and data collectors were exposed to practical situation before the start of actual data collection, and both principal investigator and supervisors assessed clarity, understandability, flow and completeness of items and the time needed to fill them. This helped to correct systematic errors, ensured consistency in items flow, and provided estimate for the time needed to complete the questionnaire.

4.12. Data processing and Analysis

The collected data was cleaned and checked for completeness during data collection period; it was entered, compiled and analyzed using EPI data3.1 and SPSS version 16.0 packages. Mainly descriptive statistics was used in the analysis. Frequency and Percentages, medians, standard deviations were used to describe findings. Inferential statistics analysis using multiple and binary logistic regressions was employed to show the relationship between cancer rehabilitation service utilization and its associated factor.

4.11. Ethical consideration

Ethical clearance and approval to conduct this research was obtained from Research and Ethical Review Committee of Department of Nursing and Midwifery, college of Allied Health Science,

Addis Ababa University. Permission to conduct the study was requested from the oncology unit of Black Lion General Specialized Hospital. Informed consent was obtained from the participants using the consent form designed for this study. The collected information was recorded anonymously and the confidentiality was maintained. Participants were informed that their participation was voluntary and that they can withdraw from the study at any time if they wished to do so. Prior to administering the questionnaire, the aims and objectives of the study were clearly explained to the participants and written informed consent was obtained.

4.12Dissemination of Results

The results of the study will be presented and submitted to Department of Nursing and Midwifery, college of Allied Health Sciences, Addis Ababa University. The result will be submitted to oncology unit of Black Lion Specialized Hospital. The study abstract will be presented in associations like Ethiopian Nursing Association (ENA) and other international associations during continuous medical education events or conferences organized by these associations. The summary of the thesis will be submitted to the international or national peer reviewed journal for publication

5: RESULT

Out of 423 respondents intended to be included on the study, complete data were obtained from 388, making a response rate of 91.725%. These 388 of participants were voluntarily agreed to participate in this study. The mean age of the respondents was 44 yearswith standard deviation of 14.9 years.

Socio-demographic characteristics

Out of 388 respondents who participated in this study, 266(68.6 %) were females and the remaining 122(31.4%) were malesas showed (in table 1). Among the total study subjects most of cancer patient's 162(41.8%) lies between 18 and 39 years old, 85(21.9%) were between age groups of 40-49 years old, 76(19.6%) were between age groups 50-59. Data related to religion showed that, 241(62.1%) were Orthodox religion followers, 86(22.2%) were Muslims and 42(10.8%) were protestants. In terms of marital status 225 (58%) of the participant were married, 94 (24.2%), 28 (7.2%), 41(10.6%) were single, divorced and widowed respectively. The ethnicity of participants 159(41%) were Amhara, 88(22.7) SNNP, 56(14.4) Oromo and 55(14.2) were tigre.

Patients were asked to respond their educational status and majority of respondents 298(66.8%) can read and write. Based on occupation of the respondents, relatively the predominant cancer patients stopped their job (27%) followed by governmental employee (19%) house wives (17.3%) and students (6.2%). The mean estimated monthly household income was 1847.14 ETB.

Table 1: Socio demographic characteristics of cancer patients greater than eighteen at cancer center of black lion hospital, Addis Ababa, Ethiopia, April 2014. (N=388).

Variable	Category	Frequency(N)	Percentage (%)
Sex	Male	122	31.4
	Female	266	68.6
Age (years)	18-39	162	41.8
	40-49	85	21.9
	50-59	76	19.6
	60-69	47	12.1
	70-79	11	2.8
	80+	7	1.8
Religion	Orthodox	241	62.1
	Muslim	86	22.2
	Protestant	42	10.8
	Catholic	13	3.4
	Others	6	1.5
Marital status	Married	225	58
	Single	94	24.2
	Widowed	41	10.6
	Divorced	28	7.2
Ethnicity	Amhara	159	41
	SNNP	88	22.7

	Oromo	56	14.4
	Tigre	55	14.2
	Other	30	7.7
Occupation	governmental employee	77	19.8
	house wife	67	17.3
	Farmer	28	7.2
	Merchant	34	8.8
	Student	24	6.2
	private or NGO	19	4.9
	Retired	25	6.4
	Stopped	105	27.1
Educational	Others	9	2.3
status	Read and write but no formal education	46	11.9
	primary education(1-6)	44	11.3
	secondary education(7-12)	90	23.2
	college or university education(12+)	117	30.2
Monthly	<313.75	97	25.0
income	313.75 – 900	103	26.5
(birr)	900 –2330	91	23.5
	>2330	97	25.0

Information about issues related to exposure to cancer

Within the last one year, from the total respondents 27.6% reported that they had information about cancer. Among the respondents who have got information about cancer in the last one year, the dominant source of information was reported to be health institution (41.7%) and television (26.1%), relatively fewer respondents reported that they got information from individuals (2.6%) and other combination of different sources of information (2.6%). The rest of the respondents reported that they had got information about cancer from radio (13.9%) and magazine (13%)

Table 2 Information about issues related to exposure to cancer at cancer center of Black Lion Hospital, Addis Ababa, Ethiopia, and April2014.(n=388)

Variables	Category	Frequency (N)	Percentage (%)
Got information about cancer in the past 1 year	Yes	107	27.6
	No	281	72.4
Any cancer before	Yes	22	5.7
	No	366	94.3
Do you know someone with cancer	Yes	34	8.8
	No	354	91.2
Relationship with cancer pt	Family	16	4.1
	neighbor	10	2.6
	Other	5	1.3
Do you involved in care of cancer patients	Yes	19	4.9
	No	369	95.1

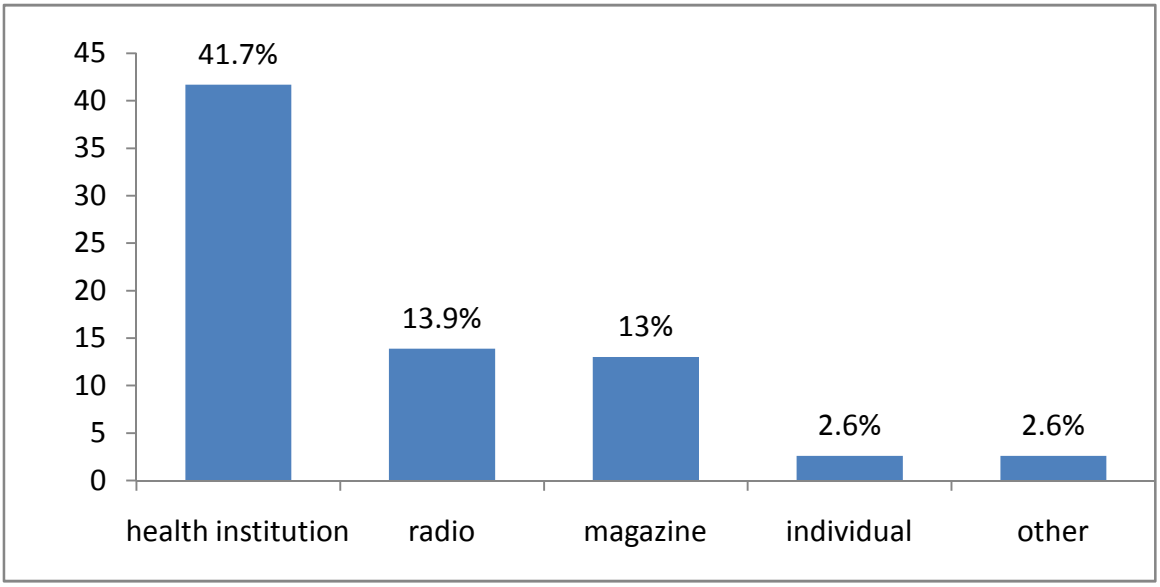

45
40
35
30
25
20
15
10
5
0
41.7%
13.9%
13%
2.6%
2.6%
health institution
radio
magazine
individual
other

Table 5.3 Types of Cancer Diagnosis at black lion hospital, Addis Ababa, Ethiopia, April 2014. (n=388)

Types of cancer	Category	Frequency	Percentage
	Breast	97	25.0
	Lung	28	7.2
	Colorectal	80	20.6
	Prostate	10	2.6
	Lymphoma	30	7.7
	Cervical	57	14.7
	Kidney	14	3.6
	Leukemia	21	5.4
	Others	51	13.1

Involvements in rehabilitation service

Out of the whole participants of this study 101(26%) of respondents were involved at least once in rehabilitation service but the rest of 287 (74%) of respondents were not part of rehabilitation service indicating the majority of patients have not gained appropriate rehabilitation service

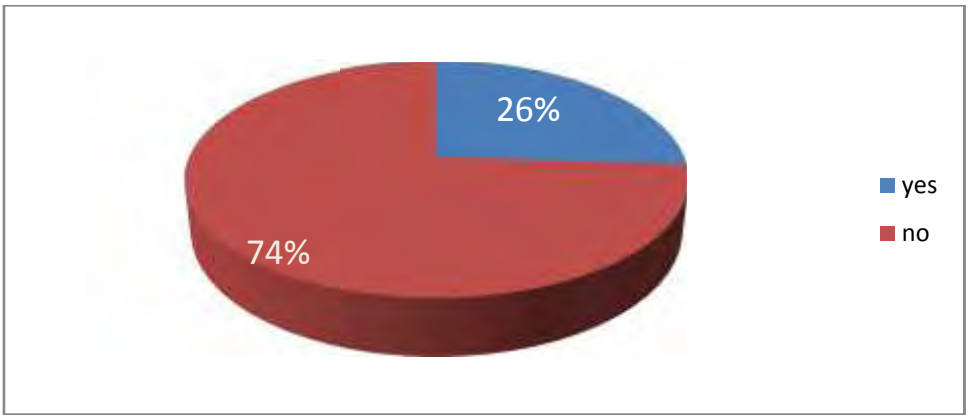


Figure 3 Involvements in rehabilitation service at least one rehabilitation serviceat Black General Specialized Lion Hospital, AddisAbaba, Ethiopia,and April 2014 (n=388).

Types of rehabilitation service

There are different types of rehabilitation services used by many clients depending on types of diagnosis and stages of illness, even though the leading types of rehabilitation service utilized by the clientout of 99 patients who gained rehabilitation service at least once were nutritional support which comprises 50(49.5%)which was followed by psychosocial support 41(41.4%) the least forms of rehabilitation service were Lower extremities, Balance training, Body awareness and Flexibility1 (1%) each.

Table 5.4 Types of rehabilitation service at Black Lion General Specialized Hospital, Addis Ababa, Ethiopia, and April2014(n=388).

Types of rehabilitation service	Category	Frequency	Percent
Walking	Yes	6	6
	No	94	94.0
Upper extremity strength exercise	Yes	8	8.1
	No	91	91.9
Lower extremities strength exercise	Yes	1	1
	No	98	99
Balance training	Yes	1	1
	No	98	99
ADL training (toileting, grooming…..)	Yes	3	3
	No	96	97
Self management(care for her/himself)	Yes	3	3
	No	96	97
Energy conservation(positioning, env't adjustment)	Yes	3	3
	No	96	97
Nutritional support (nutritional counseling)	Yes	50	49.5
	No	51	50.5

Psychological support	Yes	41	41.4
	No	58	58.6
Relaxation training	Yes	4	4
(recreational, massage	No	95	96
etc…)			
Body awareness /body	Yes	1	1
image	No	98	99
Stress mgt	Yes	2	2
	No	97	98
Flexibility exercise	Yes	1	1
	No	98	99
Education rehabilitation	Yes	38	38.4
	No	61	61.6
Treatment of side effect	Yes	16	16.2
	No	83	83.8
Symptom treatment	Yes	16	16.2
	No	83	83.8
Other	Yes	3	3
	No	96	97

Involvements in the education rehabilitation

Out of the overall respondents who are getting educational rehabilitation 59(78.7%) of the respondents got nutritional counseling followed by pain management 26(35.1%), symptom treatment13 (17.6%), family education 12(16.2%), strength exercise 9(12.2%) and energy conservation 4(5.4%) respectively.

Table5 Involvements in the education rehabilitation at Black Lion General Specialized Hospital, Addis Ababa, Ethiopia, and April 2014(n=388).

	Category	Frequency	Percent
Education	Yes	72	73.5
	No	26	26.5
Aerobic exercise	Yes	2	2.7
	No	72	97.3
Nutritional support	Yes	59	78.7
	No	16	21.3
Strength exercise	Yes	9	12.2
	No	65	87.8
Relaxation exercise	Yes	4	5.4
	No	70	94.6
ADL/feeding washing	Yes	4	5.4
	No	70	94.6
Energy conservation	Yes	4	5.4
	No	70	94.6
Pain mgt	Yes	26	35.1

	No	48	64.9
Travel	Yes	2	2.7
	No	72	97.3
sleeping technique	Yes	5	6.8
	No	69	93.2
Complementary	Yes	1	1.4
treatment	No	73	98.6
(acupuncture)			
Symptom treatment	Yes	13	17.6
	No	61	82.4
Family education	Yes	12	16.2
	No	62	83.8
Other method	Yes	2	2.7
	No	72	97.3

Methods of education

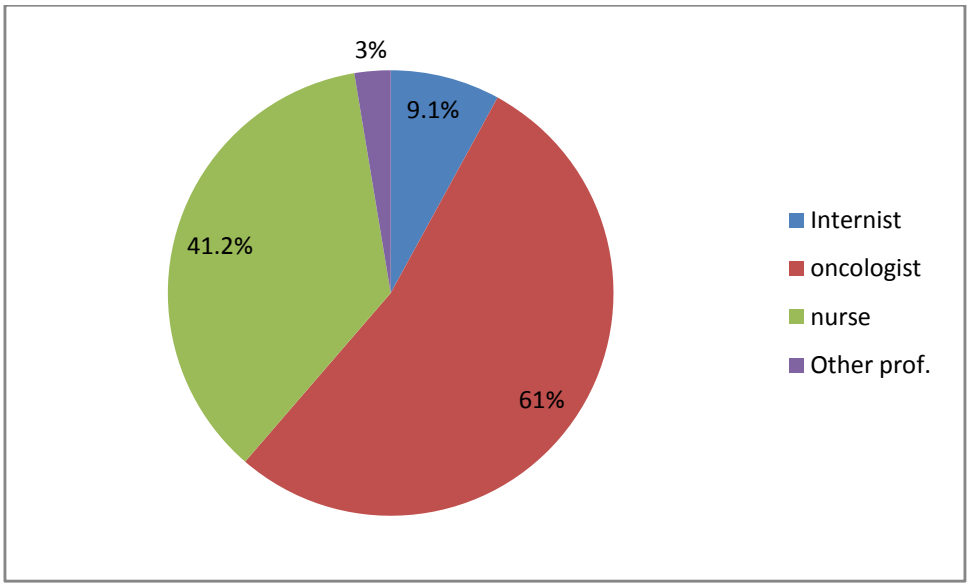
Out of the total participants who got educational rehabilitation58 (77.3%) of the participants got education by one to one discussion and 18(24%) got in group discussion and the rest of the participants got education by other means 3(4%)

Table 6 Methods of education rehabilitation at cancer center of black lion hospital, Addis Ababa, Ethiopia, April 2014(n=388).

Methods of education	Category	Frequency	Percent %
One to one	Yes	58	77.3
	No	17	22.7
Group	Yes	18	24.0
	No	57	76.0
Other	Yes	3	4.0
	No	72	96.0
Do family part of rehabilitation	Yes	49	65.3
	No	26	34.7

Health care professional's involvement

Respondents were asked about the involvements of the health care professionals. Among the total participants, 61(61%) had got rehabilitation service by oncologist. While 41.2% of the total participants got rehabilitation service by nurses, (9.1%)got rehabilitation service by internist and the rest of the participants go rehabilitation service from other professionals.



	Category	Frequency	Percent
Follow up	Yes	304	78.4
	No	84	21.6
Frequency	**Monthly**	**50**	**18.18**
	Bi-monthly	**51**	**18.5**

	Graduated discharge	**13**	**4.7**
	Every 3 months	**34**	**12.4**
	every 6 months	**19**	**6.9**
	Every 21 days	**91**	**33.1**
	Other	**17**	**6.18**

Stages of cancer illness

Majority of respondents 243(62.6%) describes the stages of illness as localized types of cancer. While 141(36.3%) describes that their stages of illness is disseminated but the rest of participants explained that they don't know anything about their stages of illness

Table8 Stages of cancer at cancer center of black lion hospital, Addis Ababa, Ethiopia, April 2014 (n=388).

Stage	Category	Frequency	Percent
	Localized	243	62.6
	Disseminated	141	36.3
	Both	2	.5
	Don't know	2	.5

Barriers of rehabilitation service utilization

Out of the whole respondents 90(23.2%) are satisfied but the rest of the participants 298(76.8%) are not satisfied in the oncology rehabilitation service. Among respondents who reported having no oncology rehabilitation program available, among identified potential barriers the most commonly cited were lack of availability of resources/space 181(63.3 %), cost 86(28.4%) and inaccessibility 124 (46.8%) Lack of health care professionals with experience in oncology 150(49.3%), Lack of support from 37(14.1%). Lack of awareness 128(44.6%), Lack of knowledge of family members 122(40.6%), Failure to identify acute illness 19(7.4%) and Lack of referral 52(19.8%).

Table 9 Barriers of rehabilitation service utilization at cancer center of black lion hospital, Addis Ababa, Ethiopia, April 2014.

	Category	Frequency	Percent
Satisfied	Yes	90	23.2
	No	298	76.8
	If not, the reason of non satisfaction		
Unavailability	Yes	181	63.3
	No	105	36.7
Lack of professionals	Yes	150	49.3
	No	154	50.7
Cost	Yes	86	28.4
	No	216	71.3
Inaccessibility	Yes	124	46.8
	No	141	53.2
Lack of support	Yes	37	14.1
	No	226	85.9
Lack of resource	Yes	14	5.5
	No	242	94.5
Dissatisfaction with	Yes	11	4.3
the program	No	244	95.7
Acute illness	Yes	8	3.1
	No	247	96.9
Side effect of	Yes	11	4.3

treatment	No	244	95.7
Musculoskeletal	Yes	9	3.5
injury	No	246	96.5
Hopelessness	Yes	12	4.6
	No	248	95.4
Lack of referral	Yes	52	19.8
	No	211	80.2
Lack of awareness	Yes	128	44.6
	No	159	55.4
Lack of knowledge	Yes	112	40.6
of family members	No	164	59.4
Failure to identify	Yes	19	87.4
acute illness	No	239	92.6
Other	Yes	25	6.5
	No	362	93.5

Association

According to this multivariate analysis knowing someone with cancer, lack of support, lack of professionals, lack of awareness, unavailability of the service and lack of knowledge was significantly associated with rehabilitation service. Knowing someone with cancer was associated with a higher rate of utilization of cancer rehabilitation service (AOR=3.539; 95%CI=1.079, 11.6, P- **0.037**).Those patients who reported that there was no availability of rehabilitation service were less likely to use cancer rehabilitation to use rehabilitation service (**AOR=0.149; 95%CI=0.70, 0.319,** P- **0.000)** when compared with those patients reported as

there was availability of the service. Among the respondents those participants with lack of appropriate professionals was less likely to use rehabilitation service (AOR= **0.345; CI =0.140-0.848 P-0.020)** compared with those with appropriate professionals**.**

Among the respondents who explains the reasons of not using rehabilitation service due to Lack of support wasless likely to use rehabilitation service (AOR=0.066, 0.07-0.655 P-0.020) when compared with respondents with good support. Lack of awareness was also one types of significant covariant which is less likely to enhancing rehabilitation service utilization (COR 0.324, 0.130-0.809 P-0.016)**.** Respondents with lack of knowledge among the family members arealso less likely for rehabilitation service utilization when compared with those respondents with good knowledge among family members.

According to theBivariate analysisinformation about cancer in the past one year, knowing someone with cancer, lack of support, lack of professionals, lack of awareness, unavailability of the service, lack of knowledge, involvement in care patients, inaccessibility of the service and lack of referral was significantly associated in the Bivariate analysis with cancer rehabilitation servicerespondents with information about cancer in the past one year is 2.288 times more likely to use rehabilitation service (COR = 2.288, 1.42-3.709) and patients who are involved in care of cancer patients 3.394 times more likely to use rehabilitation service. Among the participants who Said the barriers of rehabilitation service utilization wasinaccessibility of the service was less likely to use rehabilitation service (COR=0.243, 0.128-0.460) when compared with good accessibility. Lack of referral was less likely for not usingthe rehabilitation service utilization (COR=6.40, 0.171-0.939)

Table 10: Bivariate and multivariate logistic regression analysis of factors associated rehabilitation service utilization, at cancer center of black lion hospital, Addis Ababa, Ethiopia, April 2014. (n= 388)

		Utilization of rehabilitation service					p.val MV
		Yes	No	p.val BV	COR (95%CI)	AOR (95%CI)	
Cancer Information in the past 1 yr	Yes	41(10.6)	66(17)	.001	2.288(1.42-3.709)		
	No	60(15.5)	221(57)		1		
Know someone with cancer	Yes	**16(4.1)**	**18(4.6)**	**0.005**	**2.813(1.374-5.757)**	**3.539(1.079-11.606)**	**0.037***
	No	85(21.9)	269(69.3)		1	**1**	
Involvement in care of cancer patient	Yes	10(2.6)	9(2.3)	0.010	3.394(1.338-8.613)		
	No	91(23.4)	278(71.6)		1		
Unavailability	**Yes**	**16(4.1)**	**165(4**	**0.00**	**0.107(0.056-**	**0.149(0.7**	**0.00**

of service			**2.5)**	**0**	**0.202)**	**0-0.319)**	**0***
	No	50(13)	55(14.1)		1	1	
Lack of professionals	**Yes**	**8(2)**	**142(36.6)**	**0.000**	**0.093(0.043-0.204)**	**0.345(0.140-0.848)**	**0.020***
	No	58(14.9)	96(24.7)		1	1	
Inaccessibility of the service	Yes	15(3.8)	109(28)	0.000	0.243(0.128-0.460)		
	No	51(13.1)	90(23.2)		1		
Lack of support	Yes	**1(.25)**	**36(9.27)**	**0.007**	**0.070(0.009-0.524)**	**0.066(0.07-0.655)**	**0.020***
	No	64(16.5)	162(41.7)		1	1	
Lack of referral	Yes	7(1.8)	45(11.6)	0.035	6.40(0.171-0.939)		
	No	59(15.2)	152(39.14)		1		
Lack of awareness	Yes	**9(2.3)**	**119(30.7)**	**0.000**	**0.135(0.064-0.287)**	**0.324(0.130-0.809)**	**0.016***
	No	57(14.7)	102(2		1	1	

			6.3)				
Lack of knowledge among family members	Yes	**9(2.3)**	**103(26.5)**	**0.000**	**0.164(0.077-0.348)**	**0.362(0.133-0.986)**	**0.047***
	No	57(14.7)	107(27.6)		1	1	

P-value <0.05 significant, written with bold and in star sign is significant for multivariate analysis

6: DISCUSSION

In this cross sectional study, the majority of clients comes to the cancer center because of breast cancer 97 (25%) and followed by colorectal cancer 80(20.6%) and cervical cancer 57 (14.7%). This result indicates only those cancer patients which came to cancer center for seeking of treatment and counseling or for follow up or complain. Because of this it is not similar with the prevalence of cancer of Ethiopia. When compared with study done in USA Philadelphia on supportive and palliative care research Overall, 32.9% of the participants were diagnosed with lung cancer, 28.1% with breast cancer, 25.2% with GI cancer, and 15.0%with another type of cancer (27). The difference of the result might be related to setting difference, cancer rehabilitation service availability and the prevalence of cancer types in each country.

Out of the whole participants of this study 101 (26%) of respondents were involved at least once in rehabilitation service. This means almost three fourth of the participants didn't get any types of rehabilitation service; even among the participants who are utilized cancer rehabilitation service, not all satisfied with rehabilitation service.Types of rehabilitation service gained by patients are Walking 6%, nutritional support 49.5%, and psychological support 41.1%, upper extremities strengthen exercise 8.1% Education rehabilitation 38.1%.

Even though there are no coordinated and organized rehabilitation services. When compared with similar study conducted in Southern and Central Denmark, Physical activities were used by 42%, psychological by 17%, and work-related/finance-related activities by 12%. The single most used activity was physiotherapy (31%), followed by physical training (15%)(27). As we can see that there are a difference in types of rehabilitation service provided and extent of rehabilitation service utilization. The main difference for this might be related to types of cancer, difference in

availability of the service, awareness of the patient and the cost as well as lack of trained health professionals.

In our study concerningprofessionals involvement, some professionals informally involved in cancer rehabilitation service provision in non coordinated manner,given by oncologist (61%), nurses (41.5%), and internist (9.1%). Most of the rehabilitation service which was given other than physical therapies like education and counseling as why there is no physiotherapy and related services was given. When compared with another study done in Denmark the involvement of health professionals arepsychologist (11%), dietician (10%), alternative practitioner (including acupuncturist or reflexologist) (7%), and social worker (6%) (27). As we can observed from this study most of health professionals are other than medical health professionals but in case of our study the opposite is trueThe difference might be related to the extent of the service availability, the cost and lack of trained health professionals in rehabilitation and lack of coordinated rehabilitation service.

Regarding occupational status, in case of our study the magnitude of those participants who stopped their job related to the disease process was 27.1%. Not only had those patients banned their job also being house wife and not actively work Owen job also contributed by the disease process. Since there are no similar studies done occupational status but there is specificStudy done in USA on female cancer patients, In the first year after cancer presentation, 5 women (6.9%) were fired, quit to avoid being fired, or were forced out of their jobs by an involuntary reduction in their hours, 13 women (18.1%) left their jobs because of illness, 48 women (66.7%) kept working at the job held at cancer presentation, and 6 women (8.3%) left their jobs because

of new priorities, business closure, or moving out of town(26).This finding indicated that how much cancer is debilitating disease and the importance of rehabilitation the most important function of rehabilitation service is to return the patient to his/her maximal and productivity.

Among respondents who reported having no oncology rehabilitation programmeand not satisfied there was some possible barriers,among identified potential barriers the most commonly cited were lack of availability of resources/space 63.3 %, cost (28.4%) and inaccessibility (46.8%) Lack of health care professionals trained in oncology (49.3%), Lack of support 14.1%. Lack of awareness 44.6%, Lack of knowledge of family members40.6%, Failure to identify acute illness 3.1% and Lack of referral 19.8%

when compared with research done at Canada on oncology rehabilitation, among identified potential barriers the most commonly cited were lack of funding (71%) and access to space and equipment (61%) lack of availability of resources/space 61.3 %, Lack of health care professionals with experience in oncology 25.8%, Small oncology clientele 25.8% and Lack of support from administration 23%. Of sites not able to offer a formal oncology rehabilitation program, 55% reported that oncology patients are referred to non-specific rehabilitation programs such as outpatient orthopedics services or private clinics(30)**.** In our study there is lack of referral the reason for this might be related to lack of awareness, cost and lack of coordinated rehabilitation center**.**

Information about cancer that is: knowing someone with cancer was associated with a higher rate of utilization of cancer rehabilitation service; Lack of awareness was also one types of significant covariant which is less likely to enhancing rehabilitation service utilization. Respondents with

lack of knowledge among the family members are also less likely for rehabilitation service utilization. In the study done in Danish information and knowledge were more likely to help rehabilitation service utilization and lack of support affect negatively.

Those parents who reported that there was no availability of rehabilitation service were less likely to use cancer rehabilitation to use rehabilitation service. Among the respondents those participants with lack of appropriate professionals was less likely to use rehabilitation service. Also Lack of support was less likely to use rehabilitation service. This all covariatesaffect rehabilitation service utilization in my survey.

7: CONCLUSION AND RECOMMENDATION

7.1 Conclusion

From this study 26% of respondents were involved at least once in rehabilitation service but the majority of patients have not gained comprehensive appropriate rehabilitation services.From overall cancer patients whichcomes for treatment, the leading types of cancer diagnosis was breast cancer followed by colorectal cancer and the third leading types of cancer was cervical cancer. The rehabilitation service was given by mainly by oncologist, nurses and internists but there are no involvements of other professionals. Mainly used types of rehabilitation service were nutritional support; psychological supportand strengthening exercise were among the dominant ones. The reason why not using rehabilitation utilization and not satisfied were because of lack of professionals trained with cancer rehabilitation service, unavailability of the service, lack of awareness, cost and inaccessibility of the service were among the main once.

7.2 RECOMMENDATION

Based on the results of this study and conclusion, results the following were recommended.

1. The results of this study suggest that interventions should be carried out to enhance coordinated cancer rehabilitation service delivery. Cancer care and rehabilitation service ought to systematically address the wide range of needs
2. Encourage, support, educate and train health professionals on the rehabilitation service provision
3. The government should consider to construct cancer rehabilitation center to resolve a lack of coordinated rehabilitation support for the patients
4. Health professionals should Give service that is effective and affordable to the patients and Educate the community regarding the rehabilitation service
5. Researchers shouldConduct further nationwide research (quantitative and qualitative) regarding rehabilitation service utilization and its determinants

STRENGTH AND LIMITATIONOFTHESTUDY Strength of the study is that the final questionnaire was developed from previous used instrument for measuring rehabilitation service utilization and its determinants thoroughly pilot tested The study was done on new area of care so that it can help further studies at national level to build upon on this finding.

Limitation of the study

Some parents may under reported income with missJustification of the objective of the study; they may fear taxation increments following their respond and they were not free to speak because they fear they would discharge from treatment if they are told the truth. There were no easily available similar studies done in Africa and Ethiopia for compression purpose because of this I enforced to use literatures other than Africa and Ethiopia for compression. Since the study design was cross sectional study design it was prone to situational seasonal variation. The result may not representative of entire cancer society. Finally the information was obtained through interviewer administered questioner so that response is prone to social desirability bias.

REFERENCES

1. Ferlay J AP, Boniol M. Cancer Incidence and mortality in Europe. Ann Oncol. 2007;16(18):581-92.
2. Ferlay J SH, Bray F, Forman D, Mathers C, Parkin DM. . Cancer incidence and mortality worldwide. IARC CancerBase. 2010;10(: IARC Press).
3. WHO. The UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities. Main Report WHO/ DAR/012. 2001;2: 290.
4. Jemal A SR, Xu J, Ward E. Cancer statistics. CA Cancer J Clin 2010;60:277–300.
5. Cheng KK LD. Effects of pain, fatigue, insomnia, and mood disturbance on functional status and quality of life of elderly patients with cancer. Crit Rev Oncol Hematol. 2010;78:127–37.
6. Ling WM, Leung FY, Lo JC, Yeung M, Li GK. Anxiety, depression and quality of life among Chinese breast cancer patients during adjuvant therapy. Eur J Oncol Nurs 2010;14:17–22.
7. Jemal A SR, Xu J, Ward E. Cancer statistics. CA Cancer J Clin. 2010;60:277–300.
8. Altekruse SF KC, Krapcho M, Neyman N, Aminou, R WW, Ruhl J, Howlader N, Tatalovich Z, Cho H,, Mariotto A EM, Lewis DR, Cronin K, Chen HS, Feuer, EJ SD, Edwards BK (eds):, . SEER Cancer Statistics Review. 2010.
9. Foley KM GHeW, D.C. Improving Palliative Care for Cancer: Summary and RecommendationsNational Cancer Policy Board, National Research Council. 2001.
10. Hui D EA, De la Cruz M, Berger A, Zhukovsky DS,, Palla S EA, Fadul N, Palmer JL, Bruera E. Availability and integration of palliative care at US cancer centers. JAMA. 2010;303:1054–61.

11. ORGANIZATION WH. The UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities. Main Report WHO/ DAR/012. 2001;2: 290.
12. C. H. Rehabilitation of physical disability in cancer. N Y State J Med. 1978;78:1066–9.
13. Movsas SB CV, Tunkel RS, Shah VV, Ryan LS, Millis SR. . Rehabilitation needs of an inpatient medical oncology unit. Arch Phys Med Rehabil. 2003;84:1642–6.
14. Fialka Moser V CR, Korpan M, Quittan M Cancer rehabilitation Particularly with aspects on physical impairments J Rehabil Med. 2003;35:153–62.
15. DAVID M. O'TOOLE aAMG. Evaluating Cancer Patients for Rehabilitation Potential. West J Med 1991 155:384-7.
16. Lehmann JF DJ, Warren CG, deLateur BJ, Bryant PL,, Phys NCA. Cancer rehabilitation: Assessment of need, development, and evaluation of a model of care. Med Rehabil 1978;59:410–9.
17. S E. Physical activity and rehabilitation programs should be recommended on palliative care for patients with cancer. J Palliat Med. 2010;13:1183–4.
18. Movsas SB CV, Tunkel RS, Shah VV, Ryan LS, Millis SR. Rehabilitation needs of an inpatient medical oncology unit. Arch Phys Med Rehabil. 2003;84:1642–6.
19. DeVita VT Jr HS, Rosenberg SA, eds. Cancer: Principles and Practice of Oncology. Lippincott Williams and Wilkins. [book]. 2001; 6th ed.
20. LH G. Cancer rehabilitation into the future. Cancer Epidemiol Biomarkers Prev. 2001;92:975-9.
21. Khalid U SA, Baldwin C, Sharma B, McGough C, Norman, AR ea. Symptoms and weight loss in patients with gastrointestinal and lung cancer at presentation. Support Care Cancer. 2007;15:39–46.

22. Isenring E BJ, Capra S. . Eur J. The scored Patient-generated Subjective Global Assessment (PG-SGA) and its association with quality of life in ambulatory patients receiving radiotherapy. Clin Nutr. 2003;57:305–9.

23. Ravasco P M-GI, Vidal PM, Camilo ME. Dietary counseling improves patient outcomes: a prospective, randomized,controlled trial in colorectal cancer patients undergoing radiotherapy. J Clin Oncol. 2005;23:1431–8.

24. WHO. The UN Standard Rules on the Equalization of opportunities for Persons with Disabilities. II Main report WHO/DAR/012 2001:290.

25. Pan Y-HLaP-J. Utilization of Supportive and Palliative Care Services among Oncology Outpatients at One Academic Cancer Center:Determinants of Use and Barriers to Access. JOURNAL OF PALLIATIVE MEDICINE. 2012;15.

26. Linda M. Frazier VAM, MS, Brigitte E. Miller, Douglas V. Horbelt,James E. Delmore,and Carolyn R. Ahlers-Schmidt. Cancer-Related Tasks Involving Employment: Opportunities for Clinical Assistance. J Support Oncol. 2009 7(6):229–36.

27. LVHDGH, & CJPV, Søndergaard PVLJKJ, :, . Participation in cancer rehabilitation and unmet needs. Support Care Cancer. 2012; 20(DOI 10.1007/s00520-012-1420-0):2913–24.

28. Heui-Fen Lin Y-TW, and Jau-Yih Tsauo,, al. Le. Utilization of rehabilitation services for inpatient with cancer in Taiwan. BMC Health Services Research. 2012.

29. Yi-Hsien Lin1 aP-JP. The use of rehabilitation among patients with breast cancer. BMC Health Serv Res. 2012(doi: 10.1186/1472-6963-12-282).

30. Alyssa Canestraro AN, Malissa Stack KS, BKin, Ashley Wright, Marla Beauchamp,Katherine Berg, Dina Brooks,. Oncology Rehabilitation Provision and Practice Patterns across Canada. ONCOLOGY. 2011.

31. Hamaguchi T OH, Nakaya N, Abe K, Abe Y, Umezawa S, Kurihara M,, Nakaya K YK, Uchitomi Y:. urvey of the current status of cancer rehabilitation in Japan. S Disabil Rehabil. 2008;30:559–64

APPENDIX 1: MODIFIED ONCOLOGY REHABILITATION PROGRAM QUESTIONNAIRE.

Addis Ababa University College of Health Science, Department Of Nursing and Midwifery

Information page

This study aims to assess the cancer rehabilitation service and its utilization in the cancer center of black lion hospital. The first and the second sets of questionnaire comprise questions about socio-demographic variables and other independent variables. The third component concerned with setting of rehabilitation, the patients' diagnosis and stage of illness.Part four focuses on Components of the rehabilitation program that is Aerobic exercises, Strengthening exercise, nutritional support and psychotherapy. Education as rehabilitation service also assessed in the fifth component of the questionnaire, under these, issues covered by education will be assessed. The respondents will informed that their inclusion in the study will voluntary and they are free to withdraw from the study if they are not willing to participate. If any question they do not want to answer they have the right to do so. For whom who needs my address:-

Name –TeshagerWorku

Email – Teshager.kassie@gmail.com

Phone- 0921843288

Consent form

An interviewer guided questionnaire consent format used to obtain permission immediately before data collection time from respondents to assess cancer rehabilitation service utilization in Black Lion Hospital Addis Ababa.

Dear Respondent:

Good morning/Afternoon! My name is _____. I am working as data collector in a study conducted by the College of Health science, department of Nursing and Midwifery Addis Ababa University. This questionnaire is prepared to conduct a study assessing cancer rehabilitation service utilization and its barriers among cancer patients. You are selected and included in the study as part of the sample population to complete the questionnaire designed by the researcher. The data you will provide is very helpful to give important comments that will help to strengthen and improve the study. The information obtained in this study will be used only for research purposes. Your name will not be put in the format. Any information obtained will be kept strictly confidential and will not be exposed to any other body in connection to your name. Your participation is voluntary and you are not obliged to answer any questions you don't want. But your honest participation will contribute a lot to generate information to come up with important findings. The interview will take about 20 minutes.

Do I have your permission to continue?

Yes ____

No ____

Interviewer: Name_____ Signature: _____ Date: _____

Part I: Socio-demographic and economic Information (please put/circle the answer on the space provided)

Serial no.	Items	**Response and categories**
1.	Date	_____--- _____
2.	Address	
3.	Code	
4.	Age	
5.	Sex	1. Male 2. Female
6.	Marital status	1. Single 2. Married 3. Divorced 4. Widowed
7.	Ethnicity	1. Oromo 2. Amhara 3. SNNP

		4. Tegre 5.Other(specify)_____
8.	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5.Other(specify)_____
9.	Level of education	1. Unable to read and write 2. Able to read and write but no formal education 3. primary(1-8 grade) 4. secondary(9-12 grade) 5.collage or university (12+)

10.	Occupation	1. Governmental employee 2. House wife 3. Farmer 4. Employed in private organization or NGOs 5. Merchant 6. Student 7. Retired 8. Other specify _____
11.	Estimated monthly house hold income in birr	
12.	Estimated monthly house hold income in birr	

Part II: Information about issues related to exposure to cancer (please put/circle the answer on the space provided)

Serial no.	Items	**Answer**
13	Within the last one year, have you ever got any	1.Yes 2.No

	information about cancer?	
14	If you say yes to question 13; from where did you get the information?	1. TV 2. Radio 3. Magazines 4. Health institutions 5. Informed by someone 6. Other, specify_____
15	Have you ever suffered from any cancer before?	1. yes 2. no
16	Do you know somebody who has/had cancer?	1. yes 2. no
17	If your answer is yes for question number 16; what is your relationship to the person with cancer is?	1. Family member 2. Neighbor 3. Friend 4. No relation/on the straight 5. Other specify ____
18	Did you ever involve in caring for a person	1. yes

	with cancer	2. no

Part III: Type of patients

The following section involves answering questions concerned with setting of rehabilitation, the patients' diagnosis and stage of illness.

19. Do you get involved in any rehabilitation service?

1. YES
2. NO

20. If yes please answer for the following questions on the space/square, type of cancer and place of rehabilitation service you got

Type of Rehabilitation Program/Services						
DIAGNOSIS	Outpatient/follow up	In patient Hospital	Private clinic	Home program	Community Centre(spiritual	Other
a) Breast						
b) Lung						
c) Colorectal						
d) Prostate						
e) Non Hodgkin's						

lymphoma						
f) Cervical						
g) Kidney						
h) Oral						
i) Leukemia						
j) Pancreatic						
k) Other:						

Other:

_____

21. What is/ are your stages of illness in? (Choose one that best applies)
    1. Localized
    2. Metastasized
    3. Both
    4. Don't know
    5. Other (specify): _____

Part IV: Components of the rehabilitation program

22. What components are included (you involved in) in your oncology rehabilitation program/service? For each box please indicate 'Y' for YES, 'N' for NO and 'dk' for DON'T

KNOW to describe the components that are involved in your oncology rehabilitation program/service.

Types of rehabilitation program /services	Outpatient Hospital	Rehabilitation Hospital	Private clinic	Home program	Community Centre(spiritual)	Other
Aerobic exercises						
a) Walking						
b) Cycling						
c) Treadmill						
d)Other (specify):						
Strength training						
e)Upper extremity						
f)Lower extremity						
g) Core						
h)Balance training						
i)Training in ADL						
j)Self-management						
k)Energy conservation						
l)Nutritional support						

m)Cognitive rehabilitation training						
n)Speech and language therapy						
o)Psychosocial support						
p)Relaxation training						
q)Body awareness						
r)Stress management						
s) Flexibility						
t)Range of motion						
u)Manual therapy						
v) Education						
W)treatment side effect therapy						
x)symptom therapy						
Y)physiotherapy						
z)Other (specify						

23. For each of the following topics please check whether you involved in educational sessions as part of your oncology rehabilitation program/service** If education is NOT a component of the program, please proceed to the next question. Please put/circle the answer on the space provided

	Yes	No	Don't know
a) Aerobic exercise			
b) Nutrition			

c) Strengthening exercises			
d) Relaxation			
e) Activities of daily living			
g) Energy conservation			
h) Sexuality			
i) Pain management			
j) Travel			
k) Sleep			
l) Advanced care planning			
m) Complementary therapies (i.e., massage, acupuncture, yoga, meditation)			
n) Management of symptoms			
o) Family education			
p) Recreation/Activity			
q) Pathobiology of cancer			
r) Other (specify):			
s) Other (specify):			

24. Which teaching method is used to deliver the education component of your oncology rehabilitation program/service? Please check one.

a) One to one instruction
b) Group Discussion
c) Other (specify):_____

25. Are family members participated in any components in your oncology rehabilitation program?

a) Yes
b) No

Part V: Health care professional involvement

The following section involves answering questions concerned with the health care professionals involved in the oncology rehabilitation program/services.

26. Which health care professionals are involved in your rehabilitation service? For each box please indicate 'Y' for YES, 'N' for NO and 'dk' DON'T KNOW

Types of rehabilitation program /services

	Outpatient Hospital	Rehabilitation Hospital	Private Clinic	Home Program	Community Centre	Other
a) Dietician						
b)Exercise Physiologist						
c)General Practitioner						
e)Kinesiologist						
d) Internist						
f) Oncologist						
g) Nurse						
h)Occupational Therapist						
i) Pharmacist						
j) Physiatrist						
k)Physical therapist						
l) Psychologist						
m)Speech language pathologist						
n)Social worker						

o)Other (specify):						

Part VI: Follow-up

The following section involves answering questions concerned with patient follow-up and discharge.

27. Do you have a follow-up program? (Please check one)

- Yes

Please specify method of follow-up:

_____

- No

28. What is the frequency of follow-up after discharge from the oncology rehabilitation program/service?

- Monthly
- Bi-monthly
- Graduated discharge
- Every 3 months
- every 6 months
- Don't know
- Other (please specify): _____

Part VII: Barriers to rehabilitation programs

29. a) Is the oncology rehabilitation program/service provided meeting the needs of your rehabilitation/are you satisfied?

I. Yes
II. No

b) If not satisfied and not get involved in rehabilitation service/program what are the factors restrict you to not get involved in to oncology rehabilitation program/service? If you do NOT have an oncology rehabilitation program, please indicate possible reasons on the space provided.

Barriers	Yes	No
1.un availability of the service		
2.Lack of rehabilitation professionals with experience in oncology		
3.Cost		
4.un accessibility because large oncology patient population/awaiting time		
5.Lack of support from		

administration		
6.Lack of evidence to support oncology Rehabilitation		
7.Lack of resource and insurance		
8. Dissatisfaction with program		
9. Acute Illness		
10. Side effect of treatment		
11. Musculoskeletal injury		
12. Hopelessness medical complexity of cancer cases in acute-care settings,		
lack of appropriate referral for rehabilitation		
lack of awareness of rehabilitation services		
lack of knowledge among family members		
a failure of acute-care staff to identify functional impairments		
13. Other (specify):		

Annex II: Amharic version Questionnaire

አዲስአበባዩኒቨርሲቲጤናሳይንስኮሌጅየነርሲንግናአዋላጅነርስትምህርትክፍል

የ ተሳታፊወችመረጃመስጫቅፅ
ይህጥናትየመልሶመቋቋምአገልግሎትንአናአጠቃቀምበጥቁርአንበሳካንሰርበሽተኞች ስ ማጥናትያለመሲሆን፣ተሳታፊዉበፈቃደኝነትየሚሳተፍመሆኑንሲያዉቅያስፈልጋልካልፈለጉበፈለጉትሰአትማቋረጥ ይችላሉአናመመለስያልፈለጉትንጥያቄአለመመለስይችላሉ. አድራሻየንስሚፈልግሁሉ:-

ስም-ተሻገርወርቁ

ኢሜል — Teshager.kassie@gmail.com
ስልክ- 0921843288

የስምምነትዉል

እንደምንአደረ/ዋስአሚ ---------- ይባላል::
እኔየመጣሁትአዲስአበባዩኒቨርሲቲጤናሳይንስኮሌጅየነርሲንግናአዋላጅነርስትምህርትክፍልአማካኝነትስሚደረገው፡
- ስለካንሰርመልሶመቋቋምአገልግሎትአጠቃቀምአናተግዳሮቶቹጥናትመረጃስመሰብሰብነው::
እርስዎምበጥናቱተሳታፊይሆኑዘንድጥናቱንበሚያካሂደውአካልፍትህዊበሆነአጣስመጠይቀምላሽይሰጡዘንድተመር ጠዋል::
እርስዎየሚሰጡንማንኛውምመረጃካንሰርመልሶመቋቋምአገልግሎትንስማጠናከርእናስማሻሻልየሚረዳመረጃንስ ማቀበልእጅግጠቃሚነው:: ስምዎትበመጥይቁስይደሰፍርም::
ከእርሶየሚገኝማንኛውምመረጃሚስጢራዊነቱበከፍተኛደረጃየተጠበቀነው::
በጥናቱላይያሎትተሳትፎሙሉስሙበእርሶፈቃድላይየተመሰረተነው::
ከመጠይቁውስጥመመለስየማይፈልጉትንይመልሱዘንድአይገደዱም::
ነገርግንእርስዎበታማኝነትየሚሰጡንመረጃእጅግእስፈላጊነው::
ስለሆነምየእርሶትብብርስጥናቱትልቅአስተዋእፅአለው:: ባጠቃላይመጠይቁ ስ 20 ደቂቃየርሶንሰአትይፈልጋል::
መጠይቁላይስመሳተፍፈቃደኛናት?
አዎ: _____
አይደለሁም: _____
የጠያቂውስም፡ _____
ፊርማ:_____ ቀን:_

ክፍልአንድ፡ የማህበራዊአናየስነ-ህዝብሁኔታ

ተራ.ቁ	ጥያቄ	ምላሽ
1.	ቀን	__/_____/_____ዓ , ም
2.	አድራሻ	_____
3.	መለያ	_____
4.	እድሜ	_____
5.	ጾታ	1. ወንድ 2. ሴት
6.	የጋብቻሁኔታ	1. ያላገባ 2. ያገባ 3. አግብቶየፈታ 4. የትዳርአጋርከዚህአለምበሞትየተለየ/የተለየች
7.	ብሄር	1. ትግሬ 2. አማራ 3. ኦሮሞ

		4. ደቡብ 5. ሌላ(ይገለፅ)_____
8.	ሀይማኖት	1. ኦርቶዶክስ 2. ሙስሊም 3. ፕሮቴስታንት 4. ካቶሊክ 5. ሌላ(ይገለፅ)_____
9.	የት/ምትደረጃ	1. ማንበብእናመጻፍየማይችል 2. ማንበብናመጻፍየሚችልነገርግንመደበኛትምህርትያልተማረ 3. የመጀመሪያደረጃትምህርት (1-6) 4. ሁለተኛደረጃትምህርት (7-12) 5. የኮሌጅወይምየዩኒቨርሲቲትምህርት (12+)
10.	የስራሁኔታ	1. የመንግስትሰራተኛ 2. የቤትእመቤት 3. ገበሬ 4. ነጋዴ 5. ተማሪ 6. የግልወይምመንግስታዊባልሆነድርጅትቅጥረኛ 7. ጡረታየወጣ 8. ያቋረጠ 9.ሌላ (ይብራራ)
11.	ወርሃዊገቢ	_____

ክፍልሁለት፡ ስለካንሰርመልሶመቋቋምልምድየተመለከቱጥያቄዎች

ተራ.ቁ	ጥያቄ	መልስ
13	ባለፈዉ 1 ዐመትስለካንሳርሰምተዋል?	1.አዉ 2.አይደለም
14	አምካሉመረጀዉንከየትአገኙት?	1. ቲቪ 2. ራዲዮ 3. መፅሄት 4. የጤናድርጅት 5. ከግለሰብ 6. ሌላ(ይገለጥ)_____

15	በካንሰርበሽታተጠቅተዉያዉቃሉ?	1.አዎ 2.አይደለም
16	በካንሰርየተጠቃሰዉያዉቃሉ?	1.አዎ 2.አይደለም
17	ከተጠቂዉጋርየሎትግኙኝነትምንድነዉ?	1. ዘመድ 2. ጎረቤት 3. ጓደኛ 4. ሌላከሆነይጥቀሱ _____
18	ለካንሰርበሽተኛአንክብካቤሰጥተዉያዉቃሉ?	1.አዎ 2.አይደለም

ክፍል 3 ፤የበሽተኞቹአይነት

የሚቀጥለዉክፍልየሚያተኩረዉየካንሰርአይነት፤የመልሶመቋቋምአገልግሎትየተሰጠበትቦታ፣አባኮመልሱንበተሰጠዉቦታይሙሉ/ይክበቡ

19. **በማንኛዉምመልሶማቋቋምአገልግሎትተሳትፈዉያዉቃሉ?**

1. **አዎ**
2. **አይ**

20.**መልሳቹ አዎከሆነየካንሰሩንአይነትእናየአገልግሎቱንአይነትበተሰተዉየጋራቦታሳይስቀምጡ**

የመልሶመቋቋምአገልግሎትየተሰጠበትቦታእናየካንሰርአይነት						
የካንሰርአይነት	**ተመሳሳ ሽ**	**ተኝተዉየሚታከ ሙ**	**የግልክሊኒ ክ**	**ቤትዉስ ጥ**	**በማህበረሰብማዕከላት(መንፈሳ ዊ)**	**ሌ ላ**
1.የጡት						
2) የሳንባ						
3) የወፍራሙአንጀ ት						
4) ፕሮስቴት						

5) የሲንፍእጢ						
6) የመህፀንጫፍ						
7) የኩላሊት						
8) የሽፍ						
9) የደም						
10) የጣፍያ						
11) ሌላ						

ሌላ

_____

21. የበሽታዎደረጃ/ስርጭት (ይምረጡ)
    1. ያልተሰራጨ
    2. የተሰራጨ
    3. አላዉቅም
    4. ሌላ: _____

ክፍል 4፣የመልሶ ማቋቋምአገልግሎትክፍሎች

22.

ምንምንየመልሶማቋቋምአገልግሎትአይነቶችበርሶየመልሶማቋቋምአገልግሎትተካትዋልበተሰጠዉቦታላይያመልክቱ

የመልሶማቋቋምአገልግሎትአይነትእናየተሰጠበትቦታ

የመልሶመቋቋምአገልግሎትአይነት	ተመላላሽ	ተኝተዉየሚታከሙ	የግልክሊኒክ	ቤትዉስጥ	በማህበረሰብማዕከላት(መንፈሳዊ)	ሌላ
ሴሮቢክስ						
1) እርምጃ						
2.ብስክሌት						
3)የመሮጫማሽን						
4) ሌላ						
ጡንቻንማጠንከርያ						

5) የእጅ						
6) የእግር						
7) ሚዛንየመጠበቅስልጠና						
8) የአስትተስትየህይወትአንቅስቃሴ ልምምድ						
9) ስራስእንክብካቤየመስጠትልም ምድ						
10) ጉልበት የመቆጠብልምምድ						
l 1) የስነምግብአገዛ						
12) የማመዛዘንእናየማስታወስልም ምድ						
13) የንግግርእናየቃንቃልምምድ						
14) የስነአምሮእናየማህበረሰባዊድጋ ፍ						
15) ሰዉነትንዘናየማድረግልምምድ						
16) ሰዉነትንከበሽታጋርየማስማመ ድስልጠና						
17) ጭንቀትንየማስወገድስልጠና						
18) የመተጣጠፍልምምድ						
19) የመገጣጠሚያልምምድ						

20) ትምህርት						
21)የመድሃኒትተግዳኝችግሮችን የመቆጣጠር						
22) ምልክቶችንየማከም						
23)ፊዚዮቴራፒ						
24) ሌላ(ይገለጽ)						

23.
የምከተሉትርእሶችበእርሶየመልሶማቋቋምአገልግሎትበትምህርትመልክተካተዋል?በተሰጠዉቦታላይያመልክቱ

	አዉ	አይ	አላዉቅም
1) ኤሮቢክስ			
2)የስነ-ምግብ			
3) ጡንቻንማጠንከርያ			
4) ሰዉነትንዘናየማድረግልምምድ			
5) የእለትተለትየህይወትእንቅስቃሴልምምድ			
6) ጉልበትየመቆጠብልምምድ			
7) ስነ- ወሲብ			
8) ህመምማስታገስ			
9) ጉዞ			
10) እንቅልፍ			
11) ልዩየእንክብካቤእቅድ			
12)አጋዥህክምናዎች(ማሳጅ፣የደረቅመርፌህክምና፤ዮጋ)			
13) ምልክቶችንማከም			

14) ቤተሰብንማስተማር			
15) የመዝናኛተግባራት			
16) ስለበሽታዉሂደትናተፈጥሮ			

24. በትምህርትመልክየተሰጠዎመልሶማቋቋምአገልግሎትበምንመልክነበር?በተሰጠዉቦታላይያመልክቱ

1.አንድአንድ
2. በቡድን
3. ሌላ):_____

25. ቤተሰቦችዎበመልሶማቋቋምአገልግሎትተሳታፊዎችነበረ
1. አዎ
2. አይደሉም

ክፍል5፤ የጤናባለሞያዎችተሳትፎ

26.በነቀርሳ መልሶማቋቋምአገልግሎትነበር?ከሆነማንበተሰጠዉቦታላይያመልክቱ

	የመልሶማቋቋምአገልግሎትአይነት					
	ተመላላሽ	ተኝተዉየሚታከሙ	የግልክሊኒክ	ቤትዉስጥ	በማህበረሰብማዕከላት(መንፈሳዊ)	ሌላ
1) የስነ-ምግብባለሙያ						
2) የስፖርታዊእንቅስቃሴባለሙያ						
3) ጠቅላላሰልጣኝ						
3) የሰዉነትእንቅስቃሴባለሙያ						
4) የዉስጥደዌሀኪም						
5) የካንሰርሃኪም						
6) ነርስ						
7)የስራላይአሰልጣኝ						

8) ፋርማሲስት						
9) የአዕምሮሃኪም						
k) የአካልብቃትአሰልጣኝ						
10)ሳይኮሎጂስት						
11) የ ንግግርእናቋንቋአሰልጣኝ						
12) የማህበረሰብሰራተኛ						
13) ሌላ(ይገለጥ)						

ክፍል 6:ተመላላሽ/ከትትል
ይህክፍልስለተመላላሽታካሚዎችየሚመለከትንጥያቄይሟዋል

27. **የከትትልፕሮግራምአሎት?**
    1. **አዎ**

አባኮየክትትልአይነቱንይግለጡ
_____
    2. **አይ**

28. **የከትትልፕሮግራምካሎትበየስንትጊዜያደርጋሉ?**
    1.በየዎረ
    2. በየ 2 ወረ
    3.ጨርሻለሁ
    4. በየ 3 ወረ
    5. በየ 6 ወረ
    6. በየ 21 ቀን
    7. ሌላ(ይገለጥ): _____

ክፍላ 7: የመልሶመቋቋምአገልግሎትተግዳሮቶች

29. **ሀ) በተሰጦትየመልሶመቋቋምአገልግሎትረክተዋል**
    1. **አመ**
    2. **አይ**

ሰ) ካልረኩእናበመልሶመቋቋምአገልግሎትካልተሳተፉምክኒያቶንያስቀምጡ

ተግዳሮቶች	አዎ	አይደለም
1. አገልግሎትአለመኖር		
2.በመልሶ ማቓቓምየሰለጠነባለሞያያለመኖር		
3.ወጪ		
4.ወረፋ		
5.የአርዳታ ማነስ		
7.የሀብትአጥረት እናኢንሹራንስአለመኖር		
8. በፕሮግራሙአለመርካት		
9. አጣዳፊበሽታ		
10. የመዳኒትየገንዘብችግር		
11. አካላዊጉዳት		
12. ተስፋመቁረጥእናየበሽታዉዉስበስብነት		
የባለሙያጥቆማማነስ		
ስለመልሶማቓቓምአገልግሎትግንዛቤአለመኖር		
lየቤተሰብአባላትግንዛቤአለመኖር		
የበሽተኛዉንአካላዊችግርመለየትአለመቻል		
13. ሌላ(ይገለጥ):		

DECLARATION

I, the undersigned, declare that this thesis is my original work, has not been presented for a degree in this or any other university and that all sources of materials used for the thesis have been fully acknowledged.

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TeshagerWorku (Bsc)

Signature: _____

Name of the institution: **Addis Ababa University**

Date of submission: **April, 2014**

This thesis has been submitted for examination with my approval as University advisor

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Signature _____