



**ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF NURSING AND MIDWIFERY
DEPARTMENT OF NURSING**

**THE SOCIO -ECONOMIC IMPACT OF CERVICAL CANCER ON
PATIENTS IN ETHIOPIA: EVIDENCE FROM TIKUR ANBESSA
SPECIALIZED HOSPITAL (TASH)**

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ABBREVIATIONS

AAU	Addis Ababa University
AOR	Adjusted Odds Ratio
BSC	Bachelor of Science
CC	Cervical Cancer
MSC	Master of Science
RN	Registered Nurse
SPSS	Statistical Package for Social Science
TASH	Tikur Anbessa Specialized Hospital
USA	United State of America
WHO	World Health Organization

ABSTRACT

Background: Cervical cancer is the second most common cancer among women in Ethiopia. The increase of its prevalence has create a burden on cervical cancer patients and it is currently becomes a serious health problem in the country .Nonetheless, research on the socio economic impact of cervical cancer on patients is virtually absent in the country.

Objective: To assess the socio -economic impact of cervical cancer on patients in Tikure Anbessa Specialized Hospital, Addis Ababa, and Ethiopia 2021.

Method: Institutional based cross sectional study design was conducted among cervical cancer patients who were attending TASH Oncology Unit from March 1 to 30, 2021. A total of 423 sample populations were interviewed by structured and semi structured questionnaire that fulfil the inclusion criteria. The participants were selected using simple random sampling technique. The collected data was entered and analysed using SPSS version 24 statistical software package. Bivariate and multivariate logistic regression was done to evaluate the association of variables.

Result: Out of 423 sampled respondents, 416 agreed to participate in the study and the response rate was 98%. The study revealed that cervical cancer has a social impact on patients in terms of social discrimination (61.8%), loss of body image (63%), loss of sexual functioning (78%) and loss of femininity (89%). In addition, it has also an economic impact in terms of loss of income (45.7%), financial distress due medical and non-medical expenditures (71%), work and employment challenge (66.8%). From multivariate analysis ,it was found out that level of sickness stage and treatment modality were significantly associated with both social and economic impact of cervical cancer on patients.

Conclusion and Recommendation: Cervical cancer has an enormous social and economic impact on patients in terms of social discrimination, loss of body image, loss of sexual functioning, loss of femininity, loss of income, financial distress , work &employment challenge. Hence, efforts on reduction of social discrimination, psychotherapy support and financial support is needed to limit the socioeconomic impact of cervical cancer on patients.

Key Words: Cervical Cancer, Social impact and Economic impact

INTRODUCTION

1.1. Background of the Study

Cancer is the second leading cause of death globally, and the global cancer burden is estimated to have raised 18.1 million new cases and 9.6 million deaths in 2018. Globally, about 1 in 6 deaths is due to cancer. In recent years, cases of cancer in the world have increased creating a burden on many households. In this regard, the economic impact of cancer is also significant and increasing. Accordingly, the total annual economic cost of cancer in 2014 was estimated at approximately US\$ 1.16 trillion (1). Moreover, the overall burden of cancer in the world is projected to continue to rise, particularly in developing countries. It is projected that an estimated 21 million people will be diagnosed, and 13 million will die of cancer in the year 2030(2).

Cancer in Ethiopia accounts for about 5.8% of total national mortality (3). It is estimated that the annual incidence of cancer is around 67,573 new cases and the annual mortality is over 47,954(4). The alarmingly growing population together with lifestyle changes in the country is designate rising liability of cancer which have an enormous adverse socio economic impact on the society in general and the patient in particular (5).

Cervical cancer is a disease in which cancer cells form in the tissue of the cervix (the lower, narrow end of the uterus). Worldwide, cervical cancer incidence is on the increase and is among the leading causes of morbidity and mortality, especially in developing countries (6). There were an estimated 570,600 new cervical cancer cases, and 311,000 deaths, worldwide in 2018(4). Cervical cancer is the second commonest female malignancy next to breast cancer in the world and the leading cause of gynaecological cancer mortality in developing countries (8).

In Africa, although regional differences in the incidence of cervical cancer exist, the Eastern and sub-Saharan Africa are among the highest incidence rate regions in the world (9). In Sub-Saharan Africa, cervical cancer is the second most prevalent type of cancer among women after breast cancer (6). Moreover, in Sub-Saharan Africa, cervical cancer accounts for 22.5% of all cancer cases in women and eastern Africa is one of the most heavily affected areas with

an incidence of more than 30 cases per 100,000 women per year .Hence, it affects the social and economic stability of patients with their families (8)

Regarding the prevalence of cervical cancer in Ethiopia, it is estimated that 4,884 women's died in the country every year due to cervical cancer and its annual incidence is also around 6,294 new cases in the year 2018 (4). Though the prevalence of cervical cancer is increase from time to time, the oncology services in the country are wholly inadequate and the country is not well-prepared to bear the growing severity of the cervical cancer which makes the burden of cervical cancer to be increased at tremendous and alarming rate in the country (11).

In addition to increase of prevalence and death caused by cervical cancer, patients have to deal with increased treatment-related expenses, loss of employment and consequent income, and changes in household responsibilities. Moreover, cervical cancer disproportionately affects women in the low socio-economic level, and thus the disease can have dramatic consequences for the living conditions of patients, including falling into poverty or being pushed into deeper poverty (15).

As different literature indicates that the socio-economic impact of cervical cancer can be explained as a reduction in hours worked, work interruption, loss of family income, delays in paying for essential services, the sale of property and use of past savings (7, 23). In addition, it has a social impact in terms of social discrimination and stigmatization, loss of body image, loss of sexual functioning and loss of femininity (38, 42).

In view of the above facts, cervical cancer has received much consideration and become an important public health problem in the country .Hence, it is necessary to conduct a study about the socio economic impact of cervical cancer on patients. However, research on this issue is virtually absent in Ethiopia and which is a triggering factor that makes to conduct this study.

1.2. Statement of the Problem

Cervical cancer is the second most common cancer (13.6%) in Ethiopia among women after breast cancer (32.9%). The annual incidence of cervical cancer is around 6,294 new cases and the annual mortality is over 4,884. Therefore, given the high incidence, the disease has become a serious health concern in the country (4).

Cervical cancer affects women in the time that they are critical to economic and social stability. It enforces them to reduce their work productivity while make them to incur overwhelming medical costs. It also left women burdened by infertility, negative body image, and feeling flawed as a woman and sexually undesirable. Moreover, in Ethiopia around 80% of cancer cases are already diagnosed when the case becomes worst which make the treatment to be more costly and less successful which aggravates cervical cancer to have an enormous socio economic burden on patients (12).

The economic impact of cervical cancer can be explained in terms of financial distress due to medical and non-medical costs incurred upon the individual over the course of the disease. Medical costs mainly include cost of medicine, laboratory test and hospital admission charges. While the non-medical costs are related with cost of travel, accommodation and other pocket expense over the course of treatment (17). In addition , it has also an economic impact in terms of reduction of work hour , work interruption , work stop, loss of income , sale of property and use of past savings(7). Furthermore, the financial impact of cervical cancer is much worse for patients in developing country than the developed one as there is no well-established insurance system in these countries (11).

On the other hand, cervical cancer has also an adverse social impact on patients. In this regard, prolonged cancer hospitalization usually alienates cancer patients from their social relationship (14). Moreover , its treatment affect a patient's body image and sexual functioning which negatively affect their intimate relationship and quality of sex life .Cervical cancer patient also experienced social discrimination as it is often associated a shameful diseases from evil spirit and contagious. It also a cause for loss of fertility which particularly distressing the women and affect their marriage and intimate relationship (18).

Therefore , given the fact that cervical cancer has become a serious health problem in Ethiopia, it is expecting that it has an enormous socio economic impact on patients.

However, researches that were conducted in Ethiopia on cervical cancer have not addressed this issue of interest rather they focus on mainly issue related with prevention, screening, awareness, knowledge and attitude. Hence, to the best of my knowledge, no other study is conducted on the socio economic impact of cervical cancer on patients in Ethiopia so far. Therefore, the objective of this study is to fill such gap and aim to assess the socio -economic impact of cervical cancer on patients at Tikure Anbessa specialized hospital.

1.3. Significance of the Study

There are limited studies that have been done on the socio economic impact of cervical cancer on patients in developing countries specially Sub Saharan Africa and Ethiopia as compared to developed countries. Therefore, result of this study contributes as important evidence that can be used by the policy makers, program planners and educators to design appropriate strategy to address the problem. Furthermore, the study result also provides information for health institutes and health care professionals working on issue related with cervical cancer

Institutions and/or individuals who are interested to know the socio economic impact of cervical cancer on patients can use the document as a reference. Besides, it can be a useful reference for researchers and other personnel interested in this topic, and it serves as a base for any further studies to be conducted in this area of study.

LITERATURE REVIEW

2.1. Overview of Cervical Cancer

Cervical cancer is a type of cancer that occurs in the cells of the cervix or in the lower part of the uterus. Various strains of the human papillomavirus (HPV), a sexually transmitted infection, play a role in causing most cervical cancer (9).

2.2. Socio Economic Impact of Cervical Cancer on Patients

2.2.1. Social Impact of Cervical Cancer

Loss of Sexual Functioning

Sexual functioning is defined as the sexual feelings, thoughts, attractions and behaviours towards other people. It is also not about whom you have sex with, or how often you have it. The diagnosis of cervical cancer and its consequences of treatment radically change the sexual functioning of the patient. Surgical treatment had a consequence in a decrease in sexual pleasure and pain during intercourse. Chemotherapy and radiotherapy can cause a loss of libido and negatively affect the capacity to experience pleasure or orgasm (50).

A study conducted in USA showed that cervical cancer treatment procedures caused important problems on patients that had a negative effect on sexual life of the patient. This study also revealed that cervical cancer has a negative impact on sexual functioning of the patient in terms of loss of wholeness(43%), loss of potential marriage opportunity (29%) and loss of sexual desire (55%) (51).

Another study conducted in Croatia about the sexual life satisfaction of patients before and after the treatment of cervical cancer, it was found out that the sexual life satisfaction of early stage patients before the treatment were 74.36% while it was 69.33% for advanced stage patients and 71.9% for advanced inoperable or metastatic patients. However, after the patient start treatment of cervical cancer, the sexual satisfaction of patients were decrease and become 28.85% for early stage ,46.64% for advanced stage and 47.19% for advanced inoperable or metastatic cervical cancer(52).

A study conducted in Ireland on sexuality of cervical cancer patients showed that cervical cancer had a negative impact on sexual functioning for 63 % of the respondent. This study also further analysed the reason cervical cancer patients were not sexually active and it was found out that 42 % of the patient faced physical problem, 50 % had fear of pain , 49 % fear of developing relapse and 54 % had no sexual interest .Furthermore , 44 % of them stated that treatment side effects including pain, nausea, vaginal dryness affect their desire and libido (53)

A study conducted in Japan showed that 59% of cervical cancer patients decrease their sexual frequency with their partner due to the illness. Moreover, the study also found out that 53% of the patient had faced a problem in their marriage due to sexuality reason. Respondents also reported about the reason why they decrease their sexual functioning and which was the pain during intercourse , loss of confidence , self-blame and rejection by their husband (56).

A study done in USA found out that majority of cervical cancer patients in the study (69%) had faced sexuality and intimacy problem due to cervical cancer illness. The study respondent also mentioned the way how cervical cancer negatively affect the sexual functioning of the patient which was fear of sex worsen the pain (61%), loss of sexual satisfaction (55%), loss of physical strength (40%), husband was not interested for sex (28%), loss of self-confidence (29%). Moreover, the study also showed that sexual functioning was affected by illness, pain, anxiety, anger, stressful circumstances and medications (55).

A study conducted on Uganda on cervical cancer patients , it was found out that 73 % of the patient had faced sexual dysfunction due to abnormal vaginal bleeding (65%), offensive vaginal discharge (45%), lower abdominal pain(47%) and pain during intercourse(53%)(3)

Loss of Body Image

Body image is defined as how a person feels about their body or it mainly addressed issue related with the physical appearance. Cervical cancer and its treatment can affect a person's body image like through scarring or body changes after surgery, weight changes, hair loss and skin changes (52).

A study conducted in Singapore found out that once medical treatment for cervical cancer is completed, it had a negative impact on the body image of 67 % of cervical cancer patient. Due to the delicate nature of the cervical cancer site, treating this cancer typically affects body image adversely. The study also stated that cervical cancer negatively affect the body image of the patient through scaring on their body (44%), loss of hair (67%), change of their skin colour (55%), feel disfigured (62%), lose physical strength (65%), feeling old (36%), loss of beauties and attractiveness (51%). The study also further analysed that such change of body image affect the social life of patients and enforce patients to decrease their relationship with the society and even with their spouse or partner (56).

The study done in Poland about the effect of cervical cancer on patients, it revealed that 59 % of cervical cancer patients had faced body image disorders due to the illness and treatment. Because of this reason the study showed that 63 % of the patients were not considered themselves as whole person since they faced hair loss, their hair wasn't there and their beauty and skin attractiveness was decreased. Moreover, 43 % of the patients considered themselves as an old woman and disfigured person (57).

A study conducted in Morocco found out that the long term side effects of cervical cancer treatment significantly affects the patient quality of life .In this regard, the study showed that cervical cancer patients were not satisfied or happy on their body image as compared with women that were not a victim of cervical cancer .Moreover, the study revealed that 35% of the cervical cancer patients agreed that cervical cancer have left women with negative body image and sexuality undesirable(7).

Lose of Femininity

By virtue of its nature medical treatment of cervical cancer is destructive, often involving loss of some body parts or brings functional limitations on the body .The medical treatment of cervical cancer typically affects body parts associated with femininity. Femininity (also called womanliness or womanhood) is a set of attributes, behaviours, and roles generally associated with women (51).

According to Cancer Council of Australia, treatments for cervical cancer affect parts of patient body needed for pregnancy which make them to face a problem of losing their fertility and it make them not able to get pregnant (37). In this regard , a study conducted in USA showed that 70% of cervical cancer patients loss their fertility which mean losing

femininity because fertility (having Uterus) is a single key factor or organ that make them a women (58).

A study conducted in Iran revealed that due to infertility that arises from the treatment of cervical cancer , the patient had encountered a problem of loss of wholeness (51%), loss of womanhood (78%), martial dissatisfaction (49%), guilty feeling (31%), emotional disturbance (70%), lower self-esteem (54%), decrease frequency of sexual intercourse (40%), frustration and anger(70%) and discrimination from the society (29%)(38).

A study conducted in Germany showed that cervical cancer had brought infertility problem for patients which also make them to lose their fertility. The study also revealed that loss of femininity brought different problem like loss of sexual satisfaction (74%), loss of marital satisfaction (42%) ,experienced greater discontent (50%) , low self-esteem(69%) and isolation (29%) (41).

Social Discrimination and Stigmatization

A study conducted in Brazil on the impact of cervical cancer on social stigma and discrimination , it was found that majority of cervical cancer patients (53.2%) had faced social discrimination as a result of cervical cancer . Among the 53.2 % of the patients who were victims of social discrimination, the source of discrimination were from own neighbourhood (39%), friends (30%), boyfriend (49%) and families (15%) (42).

Another study conducted in USA showed that due to social discrimination that arises from cervical cancer , 45% of cervical cancer patient relocating their residence to new neighbourhood , 60% of them change their external physical appearance through using artificial physical appearance like using artificial human hair and eye glass. On the other hand, 39 % of the respondents totally isolate themselves from the society while 47 % of them reduced their social interaction by abstaining from social gathering like wedding ceremonies, funerals, church service and other family programs (44).

2.2.2. Economic Impact of Cervical Cancer

Financial Challenge

Patients incurred a wide range cervical cancer related medical and non- medical costs which brought a multidimensional economic burden on patients (21).

A study conducted in China about the financial challenge of cervical cancer on patient , it was found out that cost of medicine, investigations, and travel were the major causes for increased expenditure which accounts 93.5,78.3,78% respectively . Hospitalization costs were also an important factor which accounts for 60.9% indoor patients. The study also further analysed that patients covered their medical and non-medical cost through selling their asset (27%) , taking loans (22%), use past saving(34%) . Most of them (25%) also received support, in the form of medicine or money (25). A study in Kenya also found the same result where the medical and non-medical expense of patients covered through : self-income (29%), financed by savings (23.8%), insurance(16.6), borrowing(22.4%) , sold assets (15%)(14).

A study conducted in Sub Saharan Africa revealed that the total cost of cervical cancer treatment is well above the average wage level of the patient and subsidization which makes the treatment was unaffordable and inaccessible. The study also showed that majority of the patients (64%) cannot cover medical cost to relieve their financial burden. As a result, 39% of the patients abandon treatment and go back home while others just stayed in the ward with minimal treatment till they succumbed (22).

A study conducted in Kenya revealed that the key financial challenge cervical cancer patients had faced were costs of medication (87%) , cost of travel (84%) and cost of diagnostic tests (75%). The study was also indicated that due to unique nature and symptoms of cervical cancer which includes constant bleeding and discharge from vagina, 60% of the patients were faced challenges with maintaining personal hygiene which led to increased financial needs. Bleeding, discharge, and pus from their private parts really irritated them; in order to keep somehow clean, they had to use pads, swabs and at times medication or any substance that could counter foul smell that emanated from their private parts (23).

A study conducted in Ethiopia on exploring barriers in health care delivery system for cancer care in Ethiopia, it was found out that patients has got extensive financial distressed because of cancer treatment-related out-of-pocket. The study also revealed that treatment price was the first and great barrier for cancer treatment. The most frequent out-of-pocket expenditure which was mentioned by the study was drug payments; travel expenses, expense for hotel and food (12).

Work and Employment Challenge

Cervical cancer has a significant impact on the work and employment status of patients. The ill health of the patient enforce patients to quite job, reduce work hour , change job and took a long leave from work(45) .

A study conducted in USA revealed that cervical cancer was making 60 % of the respondents to loss their job which was mainly related with due to the illness (86.8%) followed by disclosure of patients about their cervical cancer status to their employer (13.2%) (47).

Discrimination at work place also one of the negative consequences that cervical cancers bring to patients. A study conducted in Brazil showed that 41.4% of the patients had got discrimination at the workplace which mainly through benefits were not given to about 33 per cent respondents, promotion was denied to 25% while 33% were forced to take voluntary retirement. 15.38% of the patient also quit their jobs due to their illness (42).

A study conducted in Korea about the correlation between cervical cancer and unemployment, it was found that the percentage of non-working women increased from 50.6% to 72.8% after diagnosis and treatment of cervical cancer and even it was hard for patients to get a job after the cancer diagnosis and treatment (45).

According to the study conducted in South Africa, it was found that most of the respondent (59%) were abandoned their work to take care of themselves. The study also indicated that effects and stress as reasons for patients inability to work. Moreover, the study also showed that While 23% of the patients took leave from work without salary to recover before going back to work (46).

Loss of income

A study conducted in Brazil showed that cervical cancer enforces patients to lose their income by 25% due to the fact that patients spend most of their time in bed and hospital. Moreover, the study also indicated that 16% of the respondents were quite their work totally due to the illness which makes to lose their income (18).

2.3. Factors Associated With the Socio Economic Impact of Cervical Cancer

According to the study conducted in USA, widowed and divorced women had faced a twofold higher adverse social and economic impact of cervical cancer compared to the married women. Perhaps one might argue that this could be explained by the fact that widowed and divorced women were psychologically frustrated or do not care about themselves and absence of support especially from husband. Other demographic characteristics , including religion , age and occupational status were not associated with the adverse socio economic impact of cervical cancer on patients(10) .

In another study conducted in Uganda on 210 cervical cancer patients, it was found that stage of cervical cancer was significantly associated with both the social and economic impact of cervical cancer on patients. In line with this, those women at early stage of cervical cancer were less likely face the adverse socio economic impact of cervical cancer than women at late stage of cervical cancer. Moreover, unemployed women were more likely face the adverse impact of cervical cancer than the employed one which might be related with the fact that employed women were economically better and can afford the expenditure related with cervical cancer treatment(3).

We didn't find additional literature to discuss the associated factors related with the socio economic Impact of Cervical Cancer on patients as there is no any additional recent study that focuses on the associations of such variables .

2.1. Conceptual Framework

By reviewing different literature about the socio economic impact of cervical cancer on patients as explained in the literature part of this study , it has been tried to adapt the conceptual formwork as follows

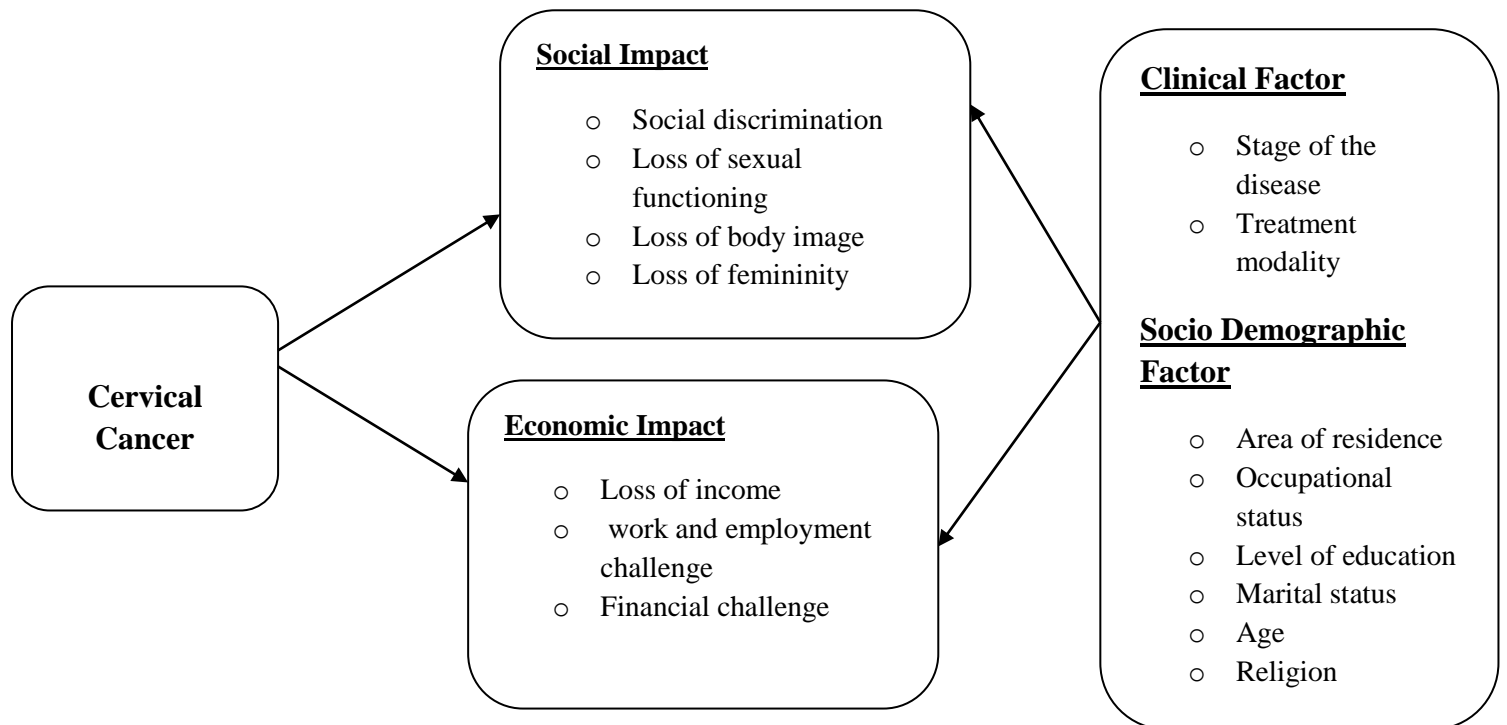


Figure 1: A conceptual framework showing the socio economic impact of cervical cancer on patients (4, 19, 21, 51).

OBJECTIVES

3.1. General objective

To assess the socio-economic impact of cervical cancer on patients at Tikure Anbessa specialized hospital, Addis Ababa, Ethiopia 2021.

3.2. Specific Objectives

The specific objectives of this study are:

- To assess the economic impact of cervical cancer on patients at Tikure Anbessa specialized hospital, Addis Ababa, Ethiopia 2021.
- To assess the social impact of cervical cancer on patients at Tikure Anbessa specialized hospital, Addis Ababa, Ethiopia 2021.
- To identify factors associated with socio economic impact of cervical cancer.

3.3. Research questions

- What are the economic impacts of cervical cancer among patients with cervical cancer?
- What are the social impacts of cervical cancer among patients with cervical cancer?
- What are the factors that are associated with the socio economic impact of cervical cancer?

METHODS

4.1. Study Area

The study was conducted in Tikur Anbessa Specialized Hospital (TASH) which is located in the capital city of Ethiopia. It is a teaching hospital for Addis Ababa University, School of Medicine. It provides a tertiary level referral treatment and is open 24 hours for emergency services. It also serves as the main central hospital in Ethiopia and accepts referrals from all over the country. Besides, the hospital offers diagnosis and treatment service for approximately for approximately 370,000-400,000 patients flow per year. The hospital has 800 beds, with 169 specialists, 65 non-teaching doctors, and 986 nurses. Furthermore, the hospital has different special units and among which the oncology unit provides a health care service for different cancer patients including cervical cancer patients. The hospital provides a health service on average for 75,000 cervical cancer patients per year (60).

Therefore, the hospital is chosen as the study site considering the above facts and it is the largest central referral hospital that has an oncology ward and the only institute that provides radiotherapy treatments for cancer patients in Ethiopia.

4.2. Study Period

The study was conducted from March1-30, 2021 G.C at Tikur Anbessa specialized hospital, Addis Ababa, Ethiopia

4.3. Study Design

An institution based cross sectional study design was employed to assess the socio economic impact of cervical cancer on patients at Tikure Anbessa specialized hospital, Addis Ababa, Ethiopia

4.4. Populations

4.4.1. Source Population

The source population for this study was all cervical cancer patients who visited oncology department of Tikur Anbesa specialized hospital.

4.4.2. Study Populations

Cervical cancer patients who visited the oncology unit of Tikur Anbesa Specialized Hospital during the study period.

4.4.3. Study Unit

All cervical cancer patients who visited the oncology unit of Tikur Anbesa Specialized Hospital during the study period and that fulfil the inclusion criteria.

4.4.4. Inclusion and Exclusion criteria

Inclusion criteria:

- Cervical cancer patients who were either newly diagnosed or came for follow up during data collection period at Tikur Anbesa specialized hospital

Exclusion criteria:

- Patients who were severely sick and unable to give information during the data collection period

4.5. Sample Size Determination

The sample size for this study has been determined using a single population proportion formula.

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

Where

- n=Sample size
- Z=Confidence level
- p= prevalence
- q= (1-p)
- d= Margin of error,

To determine the sample size the following assumption was used.

- Since there was no study conducted in Ethiopia on this issue so far it was assumed that the prevalence on the socio economic impact of cervical cancer on patient was 50%
- 5% marginal error, 95% confidence interval (CI) and none response rate of 10%,

$$n = (1.96)^2 \times 0.5(1-0.5)/0.0025$$

$$n = 384$$

Therefore, using the above single population proportion formula the sample size calculated as; 384.

Then adding 10% for non-response rate provide a total sample size of **423** women with cervical cancer.

4.6. Sampling Technique

Simple random sampling technique was used to select cervical cancer patients who are coming to oncology unit of TASH during the study period.

4.7. Study Variables

4.7.1. Dependent variables

- ✓ **Social Impact** : social discrimination, loss of body image, loss of sexual functioning, loss of femininity
- ✓ **Economic Impact** : financial challenge , loss of income, work & employment challenge

4.7.2. Independent variables

- ✓ Socio -Demographic variables
 - Area of residence
 - Level of education
 - Occupational status
 - Age

- Religion
- Marital status
- ✓ Clinical factor
 - Stage of cervical cancer : Early and Late stage
 - Treatment modality :Surgery, Chemotherapy, Radiotherapy, Brachytherapy

4.8. Operational Definition

- **Social Impact :** was defined or measured in terms of social discrimination , loss of body image , loss of sexual functioning and loss of femininity, as reported by the patients (self-report).Hence, patients were asked to reply a fixed choice answer of “**Yes**” or” **No**” on each social impact indicator variables.
- **Economic Impact:** was defined or measured in terms of loss of income, financial challenge, work and employment challenge, as perceived by the patients (self-report). Hence, patients were asked to reply a fixed choice answer of “**Yes**” or” **No**” on each economic impact indicator variables.
- **Late stage:** patients diagnosed with cervical cancer stages III and IV
- **Early stage:** patients diagnosed with cervical cancer stages of 0, I and II

4.9. Data Collection Method and Procedure

Data was collected from cervical cancer patients who attend the oncology unit of TASH using structured and semi structured questionnaire which was translated into Amharic from its English version. The questionnaire was divided into 2 sections. Section 1 addressed socio-demographic characteristics (age group, educational level, marital status, religion, residence and occupation); Section 2 addressed the socio economic variables that show the impact of cervical cancer on patients. Social impact was measured in terms of social discrimination, loss of body image, loss of sexual functioning and loss of femininity, as reported by the patients .Economic impact was measured in terms of financial challenge due medical and non-medical expenditures, loss of income, work and employment challenge, as perceived by the patients. Hence, self-report method was used as a way of gaining respondent feeling about the socio economic impact of cervical cancer. In this regard, fixed-choice questions

were phrased so that the respondents replied a fixed-choice answer, which was either 'Yes' or 'No' on each social and economic indicator variables.

Three trained MSC nurses were recruited and participated throughout the data collection and trained for one day by the principal investigator on the study instrument and data collection procedures. The aim of the study, consent form, confidentiality issue and informed consent had been explained and ensured to all of the study subjects. Data collectors were supervised at each site. The principal investigator collects the filled questionnaire and had been checked for missed values and completeness on daily basis. Then, the researcher collected all completed questionnaires the same day and this was an on-going process until the sample size of 423 was attained.

4.10. Data Quality Assurance

To ensure the validity and reliability of the data collection tool, pre-test was done on 5% of the total sample size calculated in TASH two weeks before the actual data collection and the questionnaire had been checked for its clarity, understand ability and simplicity. Respondent that were involved during the pre-test were not incorporated in the sample of the study.

After pre-test, the questionnaires was reviewed and reformatted based on the obtained inputs and comments. The filled questionnaire was presented to the principal investigator and checked for its completeness to assure the quality of data. The principal investigator had been responsible for supportive supervision on the spot and on reviewing all filled questionnaires on daily basis. Moreover, training was also given to data collectors to assure the quality of data.

4.11. Data Analysis

The collected data was verified to ensure completeness and then coded, entered in an Excel (Microsoft Corporation) spread sheet. The data was analysed with the help of SPSS version 24 statistical software package. Descriptive statistics such as frequency, percentages and mean was used to describe the result of the study.

Bivariate and multivariate logistic regression was done to evaluate the association between independent versus out-come variable. In bivariate analysis, variables that have a P value of

less than 0.25 was included in multivariable analysis where variables that have P value of less than 0.05 was used to determine level of statistical significance. Result of the study was presented in tables and figures.

4.11. Ethical Consideration

Ethical clearance obtained from institutional review board of Addis Ababa University, College of Health Sciences School of Nursing and Midwifery research committee. Support letter from department of nursing was written to TASH. Written informed consent was obtained from all study participants. Participants were informed about the objective of the study. After information was provided about purpose of the study, non-invasiveness of the data collection procedure, confidentiality of the information and respondents was reassured that they would be anonymous (unnamed). Then respondents were given a chance to ask anything about the study and was free to refuse or stop at any moment they want if their choice. The study incurs no cost to the study participants and interviewed free of charge.

4.12. Dissemination and utilization of result

The results of the study will be presented and submitted to Addis Ababa University, College of Health Sciences and Department of Nursing & Midwifery. The result will be submitted to Tikur Anbessa, specialized hospital. Finally, the result will be published in national and international journal for further use and also be presented in different conferences.

RESULT

5.1. The Socio Demographic Characteristics

A total of 423 questionnaires were distributed among the study participants and 416 responded with response rate of 98%. Majority of the respondents (55.1%) were belongs to age group of 30-50 and most of the respondents (41.1%) were orthodox Christian. Regarding educational status, 32 % of the women can't read and write whereas 26% had completed elementary school, 23.1 % had completed high school. A majority of the respondents belongs to urban areas (63%) and a majority of the respondents (47.1%) were married. Most of the patient (64.7 %) was found at late stage of the disease and about 50 % of the respondents were employed. The treatment modality of the patient indicated that 31% of the respondent was not start treatment while 69% of the respondent took different type of cervical cancer treatment.

Table 1: Socio -demographic characteristics of cervical cancer patients at TASH, Addis Ababa, Ethiopia, March 2021(n=416)

Variables	Frequency	Percentage
Age		
30-39	79	19.0
40-49	150	36.1
50-59	100	24.0
>60	87	20.9
Religion		
Orthodox Christian	171	41.1
Muslim	133	32.0
Protestant	67	16.1
Other	46	11.1
Marital Status		
Single	58	13.9
Married	196	47.1
Widowed	54	13.0
Divorced/separated	108	26.0
Level of Education		
Cannot read and write	133	32.0
Elementary completed	108	26.0
High school completed	96	23.1
College and above	79	19.0
Area of residence		
Urban	262	63.0
Rural	154	37.0
Occupational Status		
Employed		
o Public	92	22.1
o Private	116	27.9
Self employed	37	8.9
Unemployed	171	41.1
Level of sickness stage		
Early stage	151	36.3
Late stage	265	64.7
Treatment of Modality		
Not start treatment	130	31
Radiotherapy	80	19
Chemotherapy	100	24
Both Radiotherapy and chemotherapy	61	15
All chemotherapy, radiotherapy, brachytherapy	45	11

5.2. Social Impact of Cervical Cancer

5.2.1. Social Discrimination

As shown in the table 2 below, majority of the respondents (61.8%) revealed that they had experienced social discrimination as a result of cervical cancer while the rest 39.2 per cent did not face social discrimination. Regarding the source of social discrimination, it mainly comes from their neighbour 167 (65%) and followed by community 146 (56.8%) , close friends 131 (51%) and husband/partner 64 (24.9%).

In addition to social discrimination ,the result of the study also revealed that 67% of cervical cancer patient had made self-stigmatization due to bad smelling of vaginal discharge (69.2%) followed by cervical cancer made them feel alone (54.1%), rejection by family, spouse and neighbours(47%), think people don't understand them(35.1%) and prolong cancer hospitalization (25.1%).

Regarding the overall impact of social discrimination and stigmatization in the life of the respondents , 266(63.9 %) of the respondent revealed that it forced them to withdraw from social program like marriage ,death ,birthday and other ceremonies. While it also forced 225(54.1 %)of them not to out from their home, 171(41.1 %) stop playing and sharing idea with people,71(17%) relocate their living area to new neighbourhood.

Table 2: Impact of Cervical cancer in terms of Social Discrimination and Stigmatization on Patient's at TASH, Addis Ababa, Ethiopia, March 2021

Variables	Frequency	Percentage
There is Stigma and Discrimination by the society (n=416)		
Yes	257	61.8
No	160	39.2
Self-stigmatization of respondents from society(n=416)		
Yes	279	67
No	137	33
Reasons for self-Stigmatization (n=279)		
Bad smelling of vaginal discharge	193	69.2
Prolong cancer hospitalization	70	25.1
Rejection by family including spouse & neighbours	131	47.0
Cervical Cancer has made me feel alone	151	54.1
Cervical Cancer had made me people do not understand me	98	35.1
Others (specify	25	9.0

5.2.2. Loss of Sexual Functioning

Of the 416 respondents, 324 (78 %) of the respondent mentioned that cervical cancer has a negative impact on their sexual functioning and intimate relationship while the rest 92 (22 %) had not noticed its impact .This is due to , loss sexual desire 224(69%) , loss of physical strength 139 (43%), fear of sex worsen the condition 175 (54.1%), fear of pain during intercourse 230 (70.9%) , loss of wholeness 214 (66.1%) , loss of potential marriage opportunity 143 (44%), fear and doubt to start new relationship 126 (38.9%), make them not to have sexual partner 123 (38%).It was also quite heartening that 104 (32 %) of the respondent spouse /partner left them for another women and even it become a reason for divorce for 78(24 %) of the respondents.

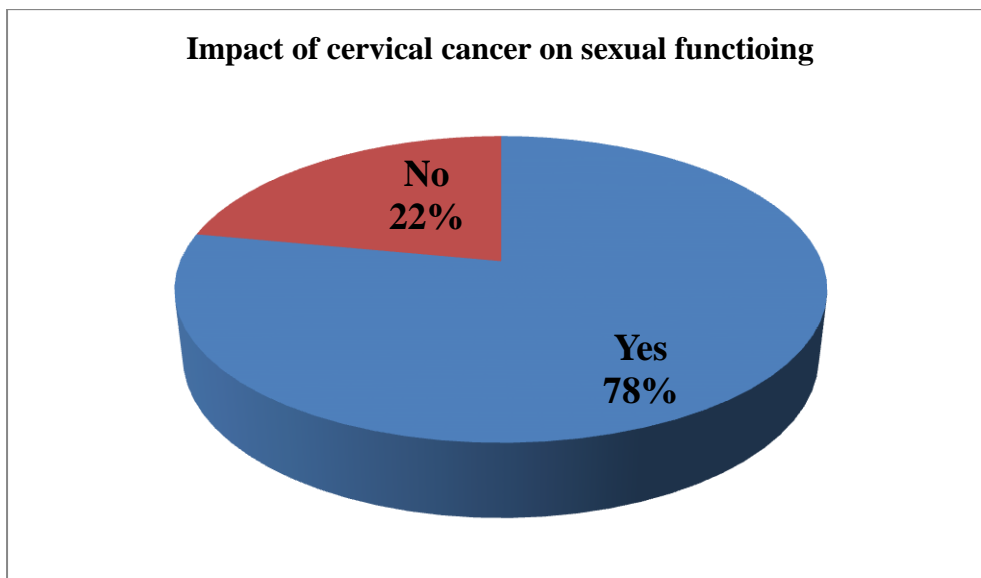


Figure 2: Impact of Cervical Cancer on Sexual Functioning of respondents at TASH, Addis Ababa, Ethiopia, March 2021

5.2.3. Loss of Body Image

Medical treatment of cervical cancer is mainly destructive by its very nature and it often left with residual effect on the body of the patient. Among the total 416 respondents, 262(63%) of them were stated that cervical cancer treatment negatively affect their body image or physical appearance while the rest 154(37%) did not notice its negative impact.

To the question how cervical cancer negatively affect the body image of the respondents , the respondents stated that cervical cancer treatment bring a problem in terms of lose hair and skin colour change 220(83.9%), feel disfigured 192 (73.1%), cannot regain the physical strength that they once had118 (45%), decrease the attractiveness of their body 183 (70%), feeling old 131 (50%).Moreover, it also make to worry or lose confidence about their body 102 (38.9%) which in turn enforced them to use artificial hair and wear clothing to cover their body 154 (58.9%).

5.2.4. Loss of Femininity

By very of its nature , the medical treatment of cervical cancer typically affect body parts associated with fertility which create a problem of infertility . In this regard, as shown in Figure majority of the respondents(51%) stated that they face problem of infertility due to cervical cancer while 29.1% of the respondents were not faced problem of infertility . On the other hand , 16.1% of the respondents were not know their fertility status at the time of this study and they suspect there will be a chance of infertility in the future. In addition, a small percentage of the respondents (4.1%) had revealed that they totally don't know whether cervical cancer treatment is a cause for infertility.

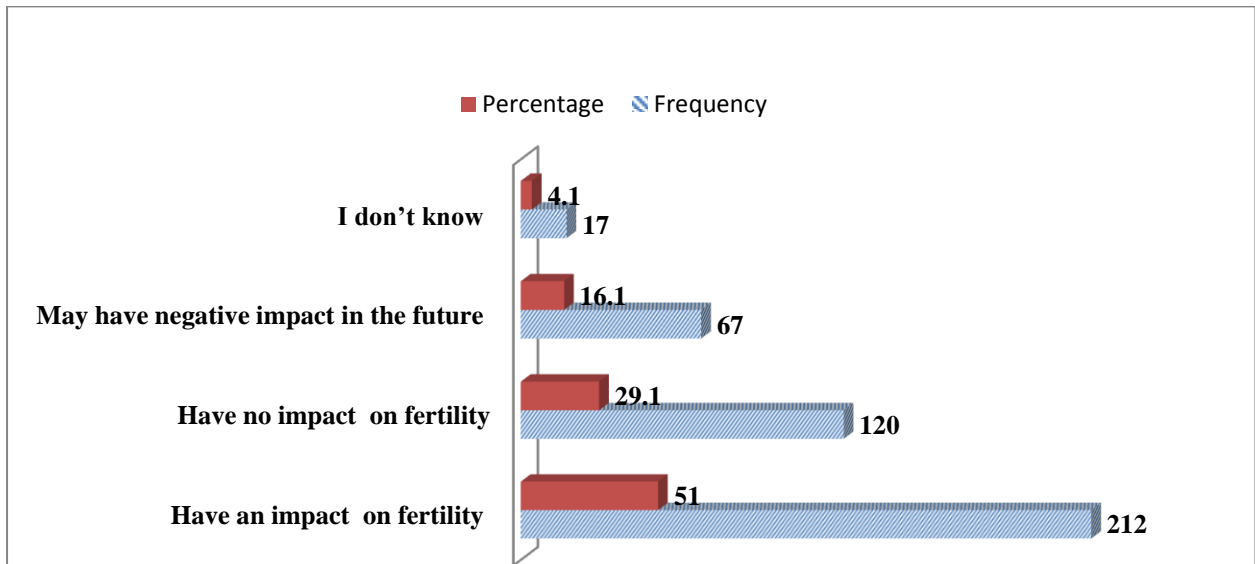


Figure 3: Negative impact of cervical cancer on fertility of patients at TASH, Addis Ababa, Ethiopia, March 2021

Among 212 respondents who had faced infertility problem, many of them 189 (89%) reported that they lose their femininity (womanliness or womanhood) due to infertility. In this regard, majority of the respondents 161 (85%) reason out that fertility is a key element that makes them a woman and 113 (60%) of the respondents was also reason out that culture of their society shall attest femininity via fertility.

Furthermore, it is also tried to identify the impact of losing fertility due to cervical cancer on all over life of the respondents. Accordingly, the respondent had faced a problem of loss of wholeness 140 (66%), deterioration of their marital relationship 110 (52%), having low sexual satisfaction 87 (41%), low self-esteem 155 (73%), loss of potential marital opportunity 98 (46%), not equally treated or respected by the society 72 (34%).

5.3. Economic Impact of Cervical Cancer

5.3.1. Financial Challenge

Majority of the patients 295 (71%) had faced extensive financial distress or challenge due to medical and non-medical expenditures of cervical cancer treatments while the rest 121 (29%) of the respondents reported that their expenditure is the same prior to the onset of the illness. When question about the reason why the medical and non-medical expenditure is increased, 156 (52.9%) of the respondents were said due to increment of cost of medicine followed by increment of cost of laboratory 121 (41%), cost of travel 192 (65.1%) and cost of hospitalization 139 (47.1%).

Due to the increment of medical and non-medical cost of cervical cancer, it forced patients borrow money (75%), selling asset (59.9%), use past saving (32%) and mortgage asset (35.1%). It was also quite heartening to note that only 5% of the respondent get support from NGO.

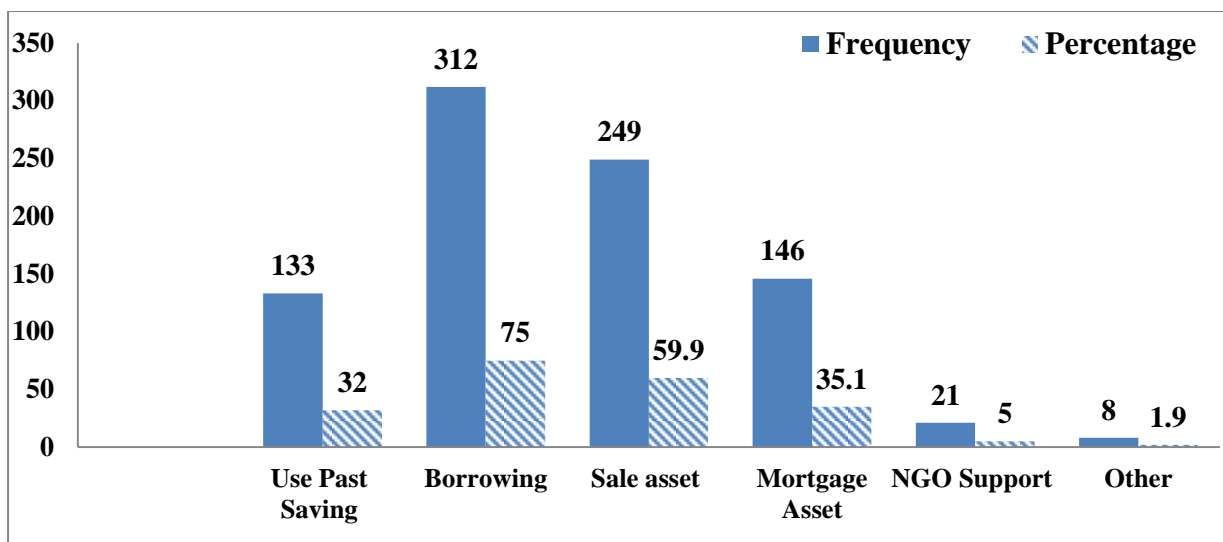


Figure 4: Source of Financing for medical and non-medical Expenditures of cervical cancer patients at TASH, Addis Ababa, Ethiopia, March 2021

On the other hand, the monthly income of employed respondents (n= 245) was ranges from birr 1,200 to 17,000 with the average income amount of birr 4,300. While as shown in figure 3, the monthly average expenditure of respondents before the onset of cervical cancer was birr 4,715 which is somehow equal with their average income with a slight difference of birr 415 only .However, the monthly average household expense of respondents after the onset of cervical cancer was birr 6,955 which is higher than the average monthly income by amount of birr 2,655 which create an extensive financial burden on patients .

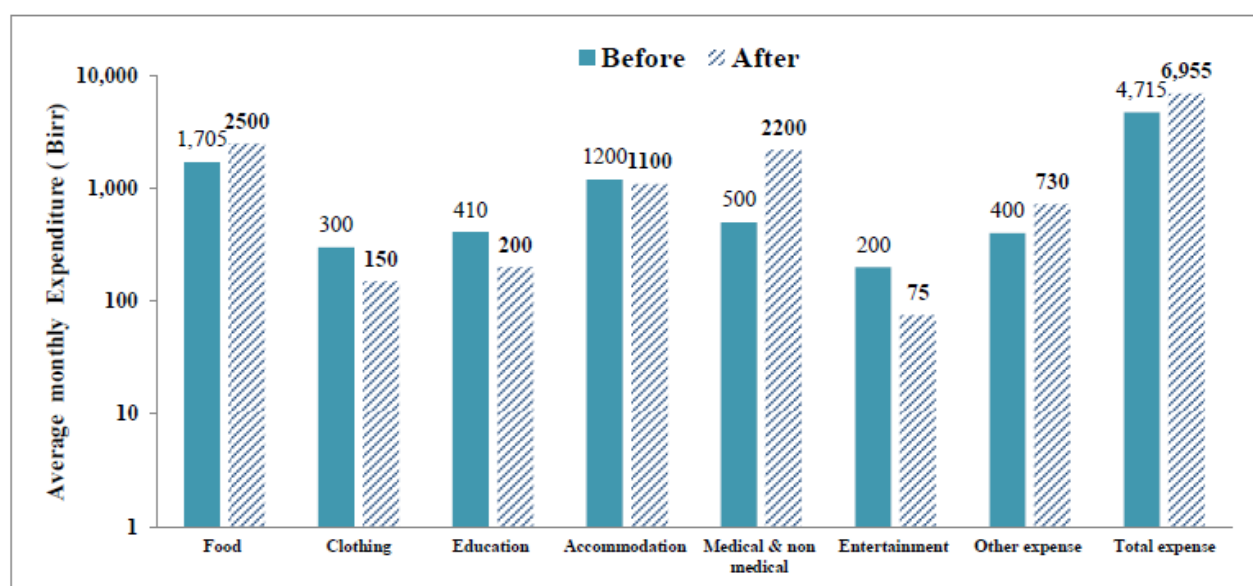


Figure 5: Average monthly expenditure of patients before and after the advent of cervical cancer at TASH, Addis Ababa, Ethiopia, March 2021

5.3.2. Work and Employment challenge

Among the total of 208 employed cervical cancer patients who worked in public and private sector, 66.8 % of them reported that cervical cancer had affected their work and employment status. This is due to the illness make to reduce work hour (53%) and stop work (41%). Moreover, due to cervical cancer illness, 27.8% of the respondent had forced to change their job on average once in six months.

Table 3: Impact of Cervical Cancer on work and employment status of respondents at TASH, Addis Ababa, Ethiopia, March 2021

Variables	Frequency	Percentage
Impact of cervical cancer on employment status (n=208)		
Has impact	139	66.8
Has no impact	69	33.2
The way how cervical cancer negatively affect employment status of the patient (n=139)		
Reduction in hour worked	74	53
Work stop	57	41
Change of work	39	27.8

5.3.3. Loss of Income

About 112 (45.7 %) of the total employed respondent loss their monthly income while the rest 133 (54.3 %) of the respondent was not lost their income. Regarding the amount of monthly income loss by the respondents, it was reported that the average monthly loss is birr 2,100 while in some case it varies with average of birr 1,200 to 14,000.

5.4. Factors Associated With Socio Economic Impact of Cervical Cancer

Bivariate logistic regression analysis was carried out to determine the association between each independent variables and social impact indicator variables (social discrimination ,loss of sexual functioning , loss of body image , loss of femininity) .The result indicated that level of education , area of residence , occupational status , level of sickness stage and treatment modality were significantly associated with all social impact indicator variables (P value is less than 0.25).While religion, marital status and age were not showed statistical association with each of social impact indicator variables. Then all variables

that have a P value of less than 0.25 were entered in to multiple logistic regression model. Accordingly, variables that showed significant association ($P \leq 0.05$) with social discrimination were area of residence, occupational status, level of sickness stage and treatment modality. While variables that showed significant association with sexual functioning, loss of body image and loss of femininity were only level of sickness stage and treatment modality.

Cervical cancer patients who lived in rural area had encountered higher social discrimination (1.9 times) compared to patients who lived in urban area [AOR=1.923; 95% CI (1.296-3.600)]. In addition, unemployed cervical cancer had encountered higher social discrimination (1.2 times) compared to patients who were unemployed [AOR=1.261; 95% CI (1.021-2.671)]. And also cervical cancer patients who were at late stage of the disease had encountered higher social discrimination [AOR=2.809; 95% CI (1.454-4.332)], higher loss of sexual functioning [AOR=3.443; 95% CI (1.557-4.069)], higher loss of body image [AOR=1.812; 95% CI (1.211-2.444)], higher loss of femininity [AOR=1.452; 95% CI (1.252-2.500)] compare to patients at early stage of the disease. Further, patients who took any of the treatment type (Chemotherapy , radiotherapy and Bracey therapy) had encountered higher social discrimination ,loss of sexual functioning , loss of body image , loss of femininity compared to patients who were not start the treatment.

Table 4: Results of multivariable logistic regression analysis for the outcome variable “Social impact indicators” of cervical cancer at TASH, 2021.

Variables	Social Discrimination		AOR(95% CI)	Loss of sexual functioning		AOR(95% CI)	Loss of body image		AOR(95% CI)	Loss of Femininity		AOR(95% CI)
	Yes	No		Yes	No		Yes	No		Yes	No	
Area of residence												
Urban	150	112	1	195	67	1	140	122	1	91	171	1
Rural	107	47	1.923(1.296-3.600)*	129	25	0.557(0.022-2.466)	122	32	1.055(0.062-2.107)	98	56	0.771(0.114-1.955)
Occupational Status												
Employed	87	158	1	180	65	1	129	116	1	87	158	1
Unemployed	169	2	1.261(1.021-2.671)**	144	27	0.943(0.277-2.855)	133	38	0.654(0.113-1.996)	102	69	0.006(0.001-1.942)
Sickness stage												
Early stage	92	59	1	94	57	1	68	83	1	62	89	1
Late stage	164	101	2.809(1.454-4.332)*	230	35	3.443(1.557-4.069)*	194	71	1.812(1.211-2.444)*	127	138	1.452(1.252-2.500)**
Treatment Modality												
Not start treatment	74	56	1	78	52	1	129	101	1	8	122	1
Radiotherapy	52	28	2.440(1.457-4.721)**	70	10	2.333(1.943-3.204)*	63	17	3.210(2.001-4.644)*	54	26	0.943(0.243-2.949)
Chemotherapy	59	41	1.664(1.212-2.555)*	89	11	1.623(1.213-2.674)*	81	19	1.421(1.251-2.054)*	62	38	1.230(1.001-3.021)**
Chemotherapy and radiotherapy	41	20	2.011(1.891-4.005)*	52	9	2.000(1.754-2.910)*	53	8	2.572(1.700-4.000)*	38	23	1.632(1.300-2.696)*
Chemo , radio & Bracey therapy	30	15	3.281(1.743-4.944)**	35	10	1.994(1.219-2.888)*	36	9	2.444(1.496-3.011)**	27	18	2.111(1.621-4.400)*

* p value is significant at 0.05, ** p value significant at 0.01

Moreover, as shown in the table 5, bivariate logistic regressions analysis was also carried out to determine the association between each independent variable and economic impact indicator variables (financial challenge, loss of income, and challenge on employment). Area of residence , occupational status , level of sickness stage and treatment modality were significantly associated with each economic impact indicator variable (P value is less than 0.25).Then all the variables that having p value of less than 0.25 were included in the multiple logistic regression model. Accordingly, it was found out that area of residence , level of sickness stage and treatment modality were significantly associated with all economic impact indicator variables as the p value less than 0.05.

Cervical cancer patients who lived in rural area had faced higher financial challenge of medical and non-medical cost (2.5 times) compared to patients who live in rural area [AOR=2.521; 95% CI (1.790-3.250)].Compared to patients at early stage of the disease, patients at late stage of the disease had encountered higher financial challenge (1.6 times more) [AOR=1.660; 95% CI (1.222-3.000)].

On the other hand , cervical cancer patients who lived in rural area had also faced higher loss of income (1.3 times) as compared to patients who lived in urban area [AOR=1.300; 95% CI (1.212-2.012)].And also patients at late stage of the disease had encountered higher loss of income compared to patients at early stage [AOR=3.424; 95% CI (2.001-4.124)].

Cervical cancer patients who lived in rural area had encountered less work and employment challenge (0.6 times less) as compared to patients who lived in urban area [AOR=0.602; 95% CI (0.024-0.986)].Moreover, cervical cancer patient who were at late stage of the disease had encountered higher work and employment challenge (3.6 times) as compared to patients at early stage of the disease[AOR=3.621; 95% CI (2.001-4.828)].

Furthermore , those patients who start any type of treatment (Chemotherapy , radiotherapy and Bracey therapy) had encountered higher financial challenge, loss of income, work and employment challenge compared to patients at who had not start the treatment.

Table 5 : Results of multivariable logistic regression analysis for the outcome variable “economic impact indicator ” of cervical cancer at TASH, 2021.

Variables	Loss of income		AOR(95% CI)	Financial Challenge		AOR(95% CI)	Challenge on work & Employment		AOR(95% CI)
	Yes	No		Yes	No		Yes	No	
Area of residence									
Urban	74	52	1	195	67	1	92	28	1
Rural	38	81	1.300(1.212-2.012)**	100	54	2.521(1.790-3.250)*	47	41	0.602(0.024-0.986)**
Sickness stage									
Early stage	29	102	1	94	57	1	52	45	1
Late stage	83	31	3.424(2.001-4.124)*	201	64	1.660(1.222-3.000)*	87	24	3.621(2.001-4.828)**
Treatment Modality									
Not start treatment	12	84	1	44	86	1	14	35	1
Radiotherapy	26	14	2.961(1.484-3.021)**	72	8	1.288(1.001-3.500)*	35	10	1.800(1.019-2.660)*
Chemotherapy	31	12	3.011(1.459-4.550)*	88	12	2.100(1.028-2.888)**	36	11	2.117(1.006-2.442)*
Chemotherapy and radiotherapy	24	12	1.444(1.002-2.000)*	55	6	1.766(1.599-3.600)*	29	9	3.081(1.778-3.900)**
Chemo , radio & Bracey therapy	19	11	2.841(1.434-3.077)*	36	9	1.550(1.006-2.701)**	25	4	2.669(1.944-3.028)*

* p value is significant at 0.05, ** p value significant at 0.01

DISCUSSION

This study assessed the socio economic impact of cervical cancer on patients in Ethiopia. In line with this, the social impact was analysed based on social impact indicator variables. Accordingly, the study revealed that 61.8 % of the patients had faced social discrimination which is mainly from their neighbour (65%), community (56.8%), close friends (51%) and husband (24.9%). This finding is consistent with the earlier study conducted in Brazil where 53.2% of cervical patients had faced social discrimination mainly by their neighbour (39%) and friends(30%) which is slightly less than the current study finding(42). This could be attributed the fact that the awareness and level of education of Brazilian about cervical cancer was by far better than Ethiopian.

In addition to social discrimination ,the result of the study indicated that 67% of cervical cancer patient had made self-stigmatization because of bad smelling of vaginal discharge (69.2%) ,feel alone (54.1%), rejection by other (47%), think people don't understand them(35.1%) and prolong cancer hospitalization (25.1%) which is consistent with previous studies in Iran(19) and USA (47).

This study showed that cervical cancer has a negative impact on sexual functioning of patient as reported 78 % of the respondent which is mainly through loss of sexual desire (69%) , loss of physical strength (43%), fear of relapsing(54.1%), fear of pain during intercourse(70.9%) and loss of wholeness(66.1%).This result also consistent with the studies conducted in Ireland (53), Japan (54)and USA(55) where cervical cancer negatively affect the sexual functioning of 63%, 53% and 69 % of the patients respectively. A study conducted in Croatia also found similar results of this study (52).

This study revealed that cervical cancer has a negative impact on body image of patients as reported by 63 % of the respondents .This study finding is lower to that reported by Irene etal (67%) in Singapore (56) and Izycki etal (59%) in Poland (57) but higher than that reported by Khalil etal (35%) in Morocco (1).Moreover, this study also indicated that the negative impact of cervical cancer on body image were take place through lose hair

(83.9%), feel disfigured (73.1%), loss of physical strength (45%), decrease the attractiveness of the body (70%) and feeling old (50%).

In present study 51% of the patients had faced problem of infertility due to cervical cancer treatment which also make 89% of them to lose their femininity or womanhood. This is congruent with the studies conducted in Iran (38) and Germany (41) where 37 % and 45 % of the patients had faced loss of femininity respectively. It is also consistent with the study conducted in USA where 70 % of the patients reported that they faced lose femininity due to cervical cancer treatment (58).

Regarding the economic impact of cervical cancer on patients, it was also analysed based on different economic impact indicator variables. Accordingly, this study found out that majority of the patients (71%) had faced extensive financial distress due medical and non-medical expenditures of cervical cancer treatments. This finding is consistent with the study conducted in Sub-Saharan Africa where 64 % of the patients had faced financial challenge due to cervical cancer (22). Previous studies in Kenya(23), and China(25) was also get the same result with this study Furthermore , the study also found out that after the advent of cervical cancer on patients , the average monthly expense to be higher than their monthly income by amount of birr 2,655 which create an extensive financial burden on patients .This result also consistent with the study conducted in Belgium where cervical cancer patient incur additional euro of 9,716 per year due to the occurrence of cervical cancer(59).

The study revealed that cervical cancer patients were not in a position to finance their medical and non-medical expenditure which forced them to borrow money (75%), selling asset (59.9%), use past saving(32%) , mortgage asset(35.1%), get support from NGO(5%). This finding is congruent with the study conducted in China where patients were forced to sale their asset (27%) , take loans (22%), use past saving(34%) due to cervical cancer (25) . Moreover, a study conducted in Kenya had also get the same result with this study where patients were forced to use past savings (23.8%), borrowing (22.4%) , sold assets (15%)(14).

In the present study 66.8 % of the employed patients had faced work and employment challenge due to cervical cancer. In this regard, the illness forced 53% of the patient to reduce work hour

and 41% of the patients to stop work. This is congruent with the study conducted in Brazil where 15.38% of cervical cancer patient had quit their job due to cervical cancer (42). It is also consistent with the study conducted in USA (47) and South Africa (46) where 59% and 60% of cervical cancer patients were abandon their work due to cervical cancer.

Regarding factors associated with the socio economic impact of cervical cancer, the study found out that area of residence, occupational status, level of sickness stage and treatment modality were significantly associated with the social impact indicator of social discrimination. While other social impact indicator variables namely sexual functioning, loss of body image and loss of femininity were significantly associated with only level of sickness stage and treatment modality. On the other hand, areas of residence, level of sickness stage and treatment modality were significantly associated with all economic impact indicator variables.

In the present study cervical cancer patients who lived in rural area had encounter higher social discrimination, financial challenge and loss of income compared to patients who lived in urban area. This might be due to the fact that there is low awareness of rural communities about the disease and even they consider the disease as an evil or a result of curse of God. On the other hand, the rural community mainly focus on agricultural activity and their economic diversification is limited which makes their source of income to be inadequate. Moreover, the non-medical cost of rural patients is likely higher as they travel long distance in search of medical service than the urban patient.

This study also revealed that cervical cancer patients who were at late stage of the diseases had encountered higher social discrimination, financial challenge, loss of income, work and employment challenge as compared to patients who were at early stage of the disease. Probable reasons could be that patient at late stage could not play a significant role in the society and couldn't participate in social gatherings. Moreover, late stage patients could face high burden of medical costs as they came to health facilities after the advance stage of the disease. Moreover, late stage patients may not be effective and productive in their work area because of the illness

Regarding modality of treatment, cervical cancer patients who took any type of treatment (chemotherapy, radiotherapy and Bracey therapy) had encountered higher social and economic impact as compared to patients who had not start the treatment.

STRENGTH AND LIMITATIONS

Strength

- No other study is conducted on the socio economic impact of cervical cancer on patients in Ethiopia so far. Hence, it is the first study of its kind to fill such gap.

Limitation

- Limited literature review and comparison was done due to insufficient literatures on this topic in Ethiopia.
- The study was conducted in a single setting of TASH.

CONCLUSION AND RECOMMENDATION

8.1. Conclusion

- More than half of cervical cancer patients (61.8%) had faced social discrimination which is mainly from their neighbours, community, close friends and husband while (69.2%) had made self-stigmatization because of bad smelling of vaginal discharge ,feel alone, rejection by other and prolong cancer hospitalization
- Cervical cancer has a negative impact on sexual functioning and body image of patients as reported by 78 % and 63 % of the respondents respectively.
- 51% of cervical cancer patients had faced infertility problem which become a reason for 89% of the patients to lose their femininity.
- Majority of the patients (71%) had faced extensive financial distress due to medical and non-medical expenditures of cervical cancer treatments.
- The work and employment status of cervical cancer patients (66.8%) were affected by cervical cancer which is directly related with the decrease of work hour and work stop.
- 45.7% of employed cervical cancer patients were forced to lose their income due to the illness.
- Cervical cancer patients who lived in rural area had encountered higher social discrimination, financial challenge & loss of income as compared patients in urban area.
- Cervical cancer patients at late stage of the diseases had encountered higher social discrimination, financial challenge, loss of income, work and employment challenge as compared to patients that were at early stage of the disease.
- Patients who took cervical cancer treatment had encountered higher social and economic impact as compared to patients who were not start the treatment.

8.2. Recommendation

On the basis of the findings of this study, the following recommendations are proposed:

- Enhance the awareness of the society about the disease to reduce the social discrimination faced by cervical cancer patients
- Health Professionals need to provide psychotherapy treatment to patients and facilitate body image acceptance programme that help patients to have a positive feeling about their current body image and avoid body appearance related distress
- In order to improve the mental wellbeing of patients about their loss of femininity, health Professionals need to advice and provide psychotherapy treatment for them.
- The government need to strengthen the support provided to cervical cancer patients in the form of subsidy and free treatment cost
- Strengthen and design a strong policy that enables Health Insurance Scheme is implemented in the country so as to reduce the financial challenge emanates from cervical cancer treatment.
- To reduce the work and employment challenge faced by cervical cancer patients, employers need to support patients by providing activities that are not stressful and physically challenging job.
- Enhance the availability of health care facilities in rural part of the country so as to reduce the non-medical related cost of cervical cancer treatment
- Researchers should conduct further studies regarding the way to reduce the negative socio economic impact of cervical cancer on patients.

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ANNEX A: Information sheet (English Version)

Hello dear? Dear respondent my name is _____ I am here to collect data for a study entitled, “the socio economic impact of cervical cancer on patients’ in Ethiopia at TAHS.” The study is being conducted by Helen Endale who is MSC Oncology nursing student at Addis Ababa University, College of health sciences, school of nursing and midwifery. For this study you are selected by chance as a participant and before getting your consent or permission of your participation, you need to know all necessary information related to the study.

Objective of the study: To assess the socio economic impact of cervical cancer on patients who are visiting oncology unit of TASH in 2021.

Benefit of the study: there is no direct benefit to the participants but accordingly the result was Provide important information to policy makers, program planners, health professionals and researchers to design appropriate strategy to address the problem

Risk of the study: Participating in this study was not have any risk or harm.

Rights of Participants: You either have full right to Participate or decline participation in this Study as participant. You may respond to all the questions or you may not answer to questions you do not want to and you may end the interview at any time you want. You can ask any question that is not clear for you.

Confidentiality: Any information forwarded confidentially and names was not be written or specified.

If you have questions regarding the study or if you wish to know the result after its completion, its pleasure to give you our phone number. Please contact the principal investigator.

Sister, Helen Endale

Tell no -0911775105

Email: helenendale68@gmial.com

Are you willing to participate in this study?

If yes please proceed to consent form. Thank you

ANNEX B: Consent form (English Version)

In signing this document, I am giving my consent to participate in the study entitled, “ the socio economic impact of cervical cancer on patients Ethiopia.” I have been informed that the objective of this study is to assess the socio economic impact of cervical cancer on patients in Ethiopia.

I have understood that participation in this study is completely voluntarily. I have been told that my answers to the questions will not be given to anyone else and no reports of this study ever identify me in any by any means. I understood that participation in this study doesn't involve risks except the time spent for completing the questionnaire.

I understand that Sister Helen is the contact person and if I have questions about the study or about my rights as a study participant, the following is the contact address.

Address of principal investigator: Helen Endale

Mobile no: 0911775105

Email: helenendale68@gamil.com

**Participants signature: _____ date: _____ Thank you
for your willingness to participate!!**

ANNEX C: QUESTIONNAIRE (English Version)

Section I. Socio- Demographic Questions

S.N	Area of question	Multiple choice
101	Agein years
102	Religion	1. Orthodox Christian 2. Muslim 3. Protestant 4. Other
103	Marital status	1. single 2. married 3. widowed 4. Divorced
104	Level of education	1. cannot read and write 2. can read and write 3. elementary completed 4. high school completed 5. college and above
105	Area of residence	1. Urban 2. Rural
106	Level of sickness/disease stage	1. Early stage 2. Late stage
107	Occupational Status	1. Employed a. Public b. Private 2. Unemployed 3. Self employed
108	Treatment of Modality	1. Surgery 2. Radiotherapy 3. Chemotherapy 4. Radiotherapy +chemotherapy 5. Chemotherapy, radiotherapy, brachytherapy 6. Not start treatment

Section 2: Economic Impact of Cervical Cancer Related Questionnaire

2.1. Impact on Financial Challenge and Cost of Treatment

S.N	Question	Answer
201	Did your medical and non-medical expenditure increase after the onset of the illness?	1. Yes 2. No
202	If yes, what was the reason for expenditure increment?	1. Cost of medicine 2. Cost of laboratory 3. Cost of travel

		4. Cost of hospitalization 5. Others (specify _____)
204	How do you cope with the increment of different expenditure including medical and non medical expenditure due to cervical cancer ?	1. Use past saving 2. Debt or Borrow from other 3. Sale assets/durable 4. Mortgage assets 5. NGO support 6. Others (specify)
205	What is your monthly income?birr
206	What is your monthly average expenditure before the onset of the illness?	1. Food.....birr 2. Clothbirr 3. Educationbirr 4. Rent/ accommodation.....birr 5. Medical and non medicalbirr 6. Otherbirr 7. Totalbirr
207	What is your monthly average expenditure after the onset of the illness?	1. Food.....birr 2. Clothbirr 3. Educationbirr 4. Rent/ accommodationbirr 5. Medical and non medicalbirr 6. Otherbirr 7. Total.....birr

2.2. Impact on work and Employment

2.2.1. Only if Employed

214	Did you face any discrimination due to cervical cancer at the workplace?	1. Yes 2. No
215	If yes, how you were discriminated?	1. Promotion denied 2. Forced to take-up voluntary retirement 3. Benefits is not given 4. Others
217	Did you change your job in the last six months	1. Yes 2. No
218	If yes, how many jobs have you changed in last six months	Number.....
219	In the last 6 month, what was the reason for change / loss of job?	1. Was asked to quit job 2. Discrimination by co-workers 3. Terminated(willingness) 4. Ill health 5. Others

2.3. Impact on Loss of income

225	Have you faced loss of income due to cervical cancer?	1. Yes 2. No
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226	If yes, what is the income amount you lose due to cervical cancer in a given month?Birr
227	If yes , what are the reasons that makes you to lose your income	<ol style="list-style-type: none"> 1. Decline of work hour 2. Work stop 3. Others (specify

Section 3: Societal Impact of Cervical Cancer

3.1. Impact on Social Discrimination and Stigmatization

S.N	Question	Answer
301	Have you faced any social discrimination or stigma	<ol style="list-style-type: none"> 1. Yes 2. No
302	If yes, then from whom/where?	<ol style="list-style-type: none"> 1. Family 2. close friends 3. Neighbour 4. Community 5. Spouse/ partner 6. Others (specify _____)
304	Have you alienate yourself from the society (self stigma)	<ol style="list-style-type: none"> 1. Yes 2. No
305	If yes, what are reasons for alienating yourself from the society?	<ol style="list-style-type: none"> 1. Prolong cancer hospitalization 2. Rejection by family including spouse 3. Cancer has made me feel alone 4. Cancer had made me to think people(friend, family ,co-workers)do not understand me 5. Bad smelling of vaginal discharge 6. Others (specify _____)
310	<ul style="list-style-type: none"> o What are the impact of discrimination &social stigmatization in your life? 	<ol style="list-style-type: none"> 1. Relocation to new neighborhood 2. Withdraw from social program 3. I often in home and bed 4. Stop playing & sharing idea with people (friend, family etc) 5. Others (Specify.....)

3.2. Impact on Sexual Functioning or Intimate Relationship

311	Does cervical cancer negatively impacted your sexual functioning and intimate relationship?	<ol style="list-style-type: none"> 1. Yes 2. No
312	If say yes, how did cervical cancer relationship affect	<ol style="list-style-type: none"> 1. Lose of sexual desire /idido

	your sexual functioning & intimate relationship or makes your not sexually active ?	<ol style="list-style-type: none"> 2. Fear of sex worsen the condition (relapsing) 3. Fear of pain during intercourse 4. My spouse/ partner left me for another women 5. Hard to date after diagnosis and treatment 6. Spouse /partner is un happy & consider me as incomplete 7. Physical problem 8. Other (Specify)
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3.3. Impact on Body Image

313	Does Cervical Cancer and its treatment negatively affect your body image (physical appearance)?	<ol style="list-style-type: none"> 1. Yes 2. No
314	If yes, specify how cervical cancer affects your body image?	<ol style="list-style-type: none"> 1. I feel disfigured 2. Not feel like a whole person (lose of hair and skin color change, etc) 3. Cannot regain my physical strength that I once had 4. Decrease the attractiveness my body 5. Feeling old 6. It make me to worry or lose confidence about my body 7. Enforce me to use artificial hair and wear clothing to cover my body 8. Other (specify)

3.4. Impact on lose of Femininity

315	Have you faced problems of infertility due to cervical cancer disease& its treatment?	<ol style="list-style-type: none"> 1. Yes 2. No 3. May be in the future 4. I Don't know
316	If yes, do you think you lose your femininity due to the infertility?	<ol style="list-style-type: none"> 1. Yes 2. No
317	If yes, why?	<ol style="list-style-type: none"> 1. Fertility is a key element that make me a woman 2. Culture of my society attest femininity via fertility 3. Others (specify)
318	What is the impact of losing your fertility and femininity in your over all life?	<ol style="list-style-type: none"> 1. Deterioration of marital relation ship 2. Low sexual satisfaction 3. Lower self esteem 4. Loss of potential martial opportunity 5. Not equally treated or respected by the society 6. Loss of wholeness 7. Other(specify)

ANNEX D: QUESTIONNAIRE (AMHARIC VERSION)

ክፍል 1. የመልስ ሰጪማንነት መለያ እና ህዝባዊ መረጃ

ተ.ቁ	መጠይቅ	ምላሽ
101	እድሜዓመት
102	ኃይማኖት	1. እርቶዶክስ 2. ማሰሊም 3. ፕሮቴስታንት 4. ሌላ ከሆነ
103	የጋብቻ ሁኔታ	1. ያላገባሁ 2. ያገባሁ 3. ባለቤቴ በሞት ተለይቷል 4. አግብቼ የፈታሁ
104	የትምህርት ደረጃ	1. ማንበብና መጻፍ የማይችል 2. ማንበብና መጻፍ የምችል 3. አንደኛ ደረጃ ት/ት ያጠናቀቅኩ 4. ሁለተኛ ደረጃ ት/ት ያጠናቀቅኩ 5. ኮሌጅና ከዚያ በላይ
105	የመኖሪያ (አካባቢ) ሁኔታ	1. ከተማ 2. ገጠር
106	የካንሸሩ ደረጃ	1. የመጀመሪያ ደረጃ (ከ1 እና 2 በታች) 2. ከፍተኛ ደረጃ (3 እና 4 ከዛ በላይ)
107	የስራ ሁኔታ	1. ተቀጣሪ ሠራተኛ c. የመንግስት ሠራተኛ d. የግል ድርጅት ሠራተኛ 2. ሥራ የሌለኝ 3. የራሴን ድርጅት የማስተዳደር
108	የወሰዱት የመዳኒት አይነት	1. ምንም አይነት መድሀኒት አልወሰድሁም 2. ቀዶ ጥገና 3. ጨር 4. ኬሞቴራፒ 5. ጨር እና ኬሞቴራፒ 6. ጨር፣ ኬሞቴራፒ እና ብራኪቴራፒ

ክፍል 2: የግንዛቤ ካንሰር አኮኖሚያዊ ተፅዕኖ ጋር ተያያዥነት ያላቸው ጥያቄዎች

2.1. ከፋይናንስ እና ከህክምና ወጪ ጋር የተያያዘ (ተፅዕኖ)

ተ.ቁ	መጠይቅ	ምላሽ
201	አጠቃላይ ወጪዎ የግንዛቤ ካንሰር ከያዥዎት በኋላ ጨምሯል ወይስ አልጨምረዎት?	1. አዎ ጨምሯል 2. አልጨምረዎትም
202	መልስዎ አዎ ከሆነ ፣ ወጪዎን እዲጨምር ያደረገው ምክንያት ምን ድን ነው?	1. የመድሀኒት ወጪያ ምርምራ ወጪዎ ጉዞ ወጪ 2. ሆስፒታል ወስጥ በህክምና ወቅት ተያያዥ የሆኑ የተለያዩ ወጪዎች 3. ሌላ ምክንያት ካሉት እባክዎ ያብራሩ

204	ከህክምና እና ከህክምና ጋር ተያያዥ የሆኑ ወጪዎችን በምን መንገድ የሚገኙት ወይም የሚከፈሉት ?	<ol style="list-style-type: none"> 1. ከዚህ ቀደም ከቆጠብኩት ላይ በማጠቃለያ 2. ከሰዎች በመጠየቅ 3. ያለኝን ንብረትም ሆነ እቃ በመሸጥ 4. ያለኝን ቤት/ንብረት በማስያዝ 5. በግብረ ሰናይ ድርጅቶች በመታገዝ 6. ከላይ ከተጠቀሱት ውጭካለ እባክዎ ይጥቀሱ
205	ወርሃዊ ገቢዎ ምን ያህል ነው?ብር
206	የ ማህፀን ካንሰር በሽታ ሳይጀምርዎ አላላኝ ወርሃዊ ወጪዎ ምን ያህል ነበር?	<ol style="list-style-type: none"> 1. ለምግብ-----ብር 2. ለልብስ-----ብር 3. ለትምህርት-----ብር 4. ለቤት ኪራይ-----ብር 5. ለህክምና እና ከህክምና ጋር ተያያዥ የሆኑ ወጪዎች ---- --ብር 6. ሌሎች ወጪዎች-----ብር 7. አጠቃላይ ወጪ-----ብር
207	የ ማህፀን ካንሰር በሽታ ከያዝዎት በኋላ አላላኝ ወርሃዊ ወጪዎ ምን ያህል ነበር?	<ol style="list-style-type: none"> 1. ለምግብ-----ብር 2. ለልብስ-----ብር 3. ለትምህርት-----ብር 4. ለቤት ኪራይ-----ብር 5. ለህክምና እና ከህክምና ጋር ተያያዥ የሆኑ ወጪዎች -----ብር 6. ሌሎች ወጪዎች-----ብር 7. አጠቃላይ ወጪ-----ብር

2.2. በስራ ላይ እና በቅጥር ሁኔታ ላይ ያለው ተፅዕኖ

2.2.1. ከዚህ በታች ያሉትን ምላሽ የሚሰጡ ተቀጣሪ ሠራተኛ ከሆኑ ብቻ ነው :

214	የ ማህፀን ካንሰር ታማሚ በመሆንዎ በስራ ስራ ስራ ላይ ደርሶብዎት ያወቃል?	<ol style="list-style-type: none"> 1. አዎ ያወቃል 2. ደርሶብኝ አያወቅም
215	መልስዎ አዎ መጠየቅ ደርሶብኛል ከሆነ ፤ በምን መንገድ ነው ወይም ለል የደረሰብዎት?	<ol style="list-style-type: none"> 1. እድገት በመከፈል 2. ጠረጎም ላይ ጊዜዎ እንደወጣ በማሳያ 3. ጥቅማጥቅም በመከፈል 4. ሌላ መጠየቅ ከደረሰብዎት ይጥቀሱ
217	ባለፉት 6 ወራት የሥራ ቅጥር አድርገዋል?	<ol style="list-style-type: none"> 1. አዎ አድርጌያለሁ 2. አላደረግኩም
218	መልስዎ አዎ ቀይረያለሁ ከሆነ ምን ያህል ሥራ ባለፉት 6 ወራት ቀይረዋል?ጊዜ
219	ባለፉት 6 ወራት ሥራዎን እንዲቀይሩ ወይም እንዲለቁ ያደረግዎት ምክንያት ምንድነው?	<ol style="list-style-type: none"> 1. ስራ እንዳቆም በአስሪዬ ተነግሮኝ 2. በሥራ ጓደኞቼ መጠየቅ ደርሶብኝ 3. በገዛ ፍቃዴ ስራ ለቅቄ 4. በጠፍ ማጣት ምክንያት 5. የ ማህፀን ካንሰር ህመምተኛ መሆኔን በመገለጹ 6. ሌላ ካልዎት እባክዎ ይግለጹ
220	በባለፉት 6 ወራት በማህፀን ካንሰር ህመም ምክንያት ለምን ያህል ጊዜ ከሥራ ቀሩ?	-----ቀን/ወር
221	ከሥራ በመቅረትዎ የሥራ ክፍያ ሳያገኙ ቀርተዋል?	<ol style="list-style-type: none"> 1. አዎ 2. አልቀረብኝም

		3. በኔ የሥራ ቦታ ይህ አይሰራም
222	አዎ ከሥራ በመቅረቱ የሥራ ክፍያ አልተሰጠኝም የሚሉ ከሆነ ምን ያህል ክፍያ ነው ያልተሰጠዎት?ብር
223	ከሰራ በመቅረትዎ ጥቅማጥቅም እንዲያጠቅሩ ግደግደዎታል ወይ? አዎ ከሆነ ምን ዓይነት ጥቅማጥቅሞች ናቸው?	1. 2. 3. 4.

2.3. በገቢ መቀነስ (ማጣት) ላይ ያለው ተፅዕኖ

225	በሚገባዎት ካንሰር ህመም ምክንያት ገቢዎን እንዲያጠቅሩ ግደግደዎታል?	1. አዎ 2. እንዳጣ አላደረገኝም
226	መልስዎ አዎ ከሆነ ፤ በሚገባዎት ካንሰር ምክንያት ምን ያህል ገንዘብ በአሜሪካ በወር እንዲያጠቁሩ ዋል?ብር
227	በተጨማሪ በሚገባዎት ካንሰር ምክንያት ጋር በተገናኘ ገቢዎትን እንዲያጠቁሩ ፤ ለገቢዎ ማጣት ምክንያት ምን ድካሙ ነው?	1. የሥራ ስዓት በመቀነስ ሴ 2. ሥራ በማቆሚያ 3. ሌላ ካለዎት ይግለጹ

ክፍል 3: የሚገባዎት ካንሰር ማህበራዊ ተፅዕኖ

3.1. ማህበራዊ መጠላለፍ እንዲኖር ያለው ተፅዕኖ

ተ.ቁ	ማጠቃለያ	ምሳሌ
301	በሚገባዎት ካንሰር ህመም ምክንያት ማህበራዊ መጠላለፍ ደርሶብዎት ያወቃል?	1. አዎ ያወቃል 2. አዎ ወቅም
302	አዎ መጠላለፍ ደርሶብዎት ካሉ በማኑ ውይይት ላይ ሳይሆኑ?	1. በቤተሰብ 2. በቅርብ ጓደኞች 3. በጎረቤት 4. በሚገባዎት ሰብ 5. በትዳር አጋሬ ወይም በፍቅር ጓደኞች 6. ሌላ ከሆነ እባክዎ ይግለጹ
304	በማንኛውም ካንሰር ህመም ምክንያት እራስዎን ከህብረተሰቡ አግላው ያወቃሉ?	1. አዎ ራሴን አግልጥላለሁ 2. አላገለገልኩም
305	አዎ ራሴን አግልጥላለሁ ካሉ እራስዎን ከህብረተሰቡ ያገለግሉት ምክንያት ምን ድካሙ ነው?	1. ለረዥም ጊዜ በሆስፒታል ወስጥ በህክምና ስለምቆይ 2. በቤተሰቤ እና ባለቤቴን ጨምሮ መጠላለፍ ስለማድረግ ስጠኝ 3. ህመሙ በጥንካሬ እንዲሰማኝ ስለማድረግ 4. ሰዎች (ጓደኛ፣ ቤተሰብ፣ የሥራ አጋር) አይረዱኝም ብዬ ስለማለብ 5. ከሚገባዎት የሚጠቀሙ ፈሳሽ መጥፎ ጠረን ያለው በመሆኑ 6. ሌላ ምክንያት ካለዎት እባክዎ ይግለጹ
310	በሚገባዎት ህመም ምክንያት በመጠላለፍ በአጠቃላይ ህይወትዎ ላይ ምን ተፅዕኖ ደርሶብዎታል?	1. አዲስ መንደር ቀይሬ እንደኖር አስገደደኛል 2. በማንኛውም ማህበራዊ ህይወት (ዝግጅት) ላይ እንዳልገኝ አድርጎኛል 3. ብዙ ጊዜ በቤቴ እና በአልጋዬ ላይ ጊዜዬን እና ዳሳልፍ አድርጎኛል 4. ከሆኞች (ቤተሰብ፣ ጓደኛ እና ሌሎች) ጋር እንዳልጫወትና ሃሳብ እና ዳልልዋወጥ አድርጎኛል

		5. ሌላ ካለዎት እባክዎ ይግለጹ
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3.2. የታዊ ፍላጎትና የፍቅር ግንኙነት ላይ ያለው ተፅዕኖ

311	በጣህጹን ካንሰር ህመም በመኖሪያ የታዊ ፍላጎት ላይ እና የፍቅር ግንኙነት ላይ አሉታዊ ተፅዕኖ አድርጎታል?	<ol style="list-style-type: none"> 1. አዎ አድርጎብኛል 2. አላደረሰብኝም
312	አዎ አድርጎብኛል ካሉ በምን መንገድ ነው የጣህጹን ካንሰር ህመም በየታዊ ፍላጎት ላይ እና በፍቅር ግንኙነት ላይ ተፅዕኖ ያደረሰብዎት?	<ol style="list-style-type: none"> 1. የታዊ ግንኙነት ፍላጎት እንዳይኖረኝ በማድረግ 2. የታዊ ግንኙነት ማድረግ ህመሙ እንዲባባስ ያደርገዋል ብዬ እንዳስብ አድርጓል 3. የታዊ ግንኙነት ህመም አለው ብዬ እንዳስብ አድርጎኛል 4. በህመም ምክንያት ባለቤት/የ ፍቅር ጓደኛዬ እኔን ትቶ ሌላ ሴት ጋር እንዲሄድ አድርጓል 5. ከህመሙ ከህክምናው በኋላ አዲስ የፍቅር ጓደኛ ለመተዋወቅ እንደከብደኝ አድርጓል 6. ባለቤቴ ወይም የፍቅር ጓደኛዬ እንከን ያለባት ሴት ነች ብሎ ስለማይስብ እኔ በምስጢር ፍቅር ደስተና አለመሆን 7. ሌላ ካለዎት እባክዎ ይግለጹ

3.3. በአካላዊ ገፅታ ላይ ያለው ተፅዕኖ

313	የጣህጹን ካንሰር ህመም ህክምናው አካላዊ ገፅታ ላይ አሉታዊ ተፅዕኖ ደርሶብዎታል ወይስ አላደረሰብዎትም?	<ol style="list-style-type: none"> 1. አዎ አድርጎብኛል 2. አላደረሰብኝም
314	አዎ አካላዊ ገፅታዬ ላይ አሉታዊ ተፅዕኖ አድርጏል ካሉ፤ በምን መንገድ ነው ያደረሰብዎት?	<ol style="list-style-type: none"> 1. ጉዳት የደረሰበት አካል እንዲኖረኝ አድረጓል 2. እንከን እንዳለብኝ ወይም ሙሉ ሰውነት ሆኖ እንዳላሰብ አድርጎኛል (ፀጉሬ በመነቃቃት፣ የሰውነት ቆይታ ቀለመ በመቀየር እና ሌሎችም) 3. ከዚህ ቀደም ያለኝን የሰውነት ጥንካሬ እንዳጣ አድርጎኛል፡ 4. የሰውነት ጥንካሬ እንዲቀንስ አድርጓል 5. በጣም ያረጀሁ ሰው እንደሆኑ አድርጎኛል 6. በሰውነት እንደጩቆ ወይም በራስ መተማመን እንዳጣ አድርጎኛል፡ 7. ሰውነት ማግኘት ጠቅላላ እንደሆነ አድርጎኛል 8. ሌላ ካለ እባክዎ ይግለጹ

3.4. ሴትነት የሚለው እሴት እንዳይኖር ያለው ተፅዕኖ

315	በጣህጹን ካንሰር ህመም እና ህክምና ምክንያት መካን እንዲሆኑ አድርገዎታል?	<ol style="list-style-type: none"> 1. አዎ አድርጎኛል 2. አላደረገኝም 3. ምን አልባት ወደፊት ሊያደርገኝ ይችላል 4. አላወቅም (አሁን ላይ መናገር አልቻልኩም)
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316	መካን እንዲሆን አድርጎኛል ካሉ፤ መካን በመሆንዎ ምክንያት የሴትነት እሴትን አጥቻለሁ ብለው ያስባሉ?	<ol style="list-style-type: none"> 1. አዎ አስባለሁ 2. አላስብም
317	የሴትነት እሴት አጥቻለሁ ካሉ ምክንያቱ ምንድነው?	<ol style="list-style-type: none"> 1. አንድን ሴት መጥቶ ማደርጋት መወለድ መቻል ስለሆነ 2. የሚበረሰቡ ባህል ሴትነት የሚልፀው በመወለድ ስለሆነ 3. ሌላ ካለ ያብራሩ
318	መወለድ ባለመቻልዎ እና የሴትነት እሴትዎን በማጣትዎ በአጠቃላይ ህይወትዎ ላይ ያለው ተፅዕኖ ምንድነው?	<ol style="list-style-type: none"> 1. የጋብቻ ሁኔታዬ አደጋ ላይ እንደወደቅ አድርጎኛል 2. በጾታዊ ግንኙነት ደስተኛ እንዳልሆን አድርጎኛል 3. በራስ መተማመን እንዲቅስ አድርጎኛል 4. በቀጣይ ትዳር እንዳይኖረኝ እንቅፋት ሆኗል 5. በህብረተሰቡ እኩል እንዳልከበር አድርጓል 6. መጥሰውኝ ብዬ እንዳላሰብ አድርጓል 7. ሌላ ካለ እባክዎ ይግለፁ

ANNEX E: APPROVAL SHEET

APPROVAL SHEET

NAME	RANK	SIGNITURE	DATE
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NAME	RANK	SIGNITURE	DATE
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RESEARCH ADVISORS:

NAME	RANK	SIGNITURE	DATE
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NAME	RANK	SIGNITURE	DATE
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DEPARTMENT HEAD:

NAME	RANK	SIGNITURE	DATE
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