# ADDIS ABABA UNIVERSITY

## COLLEGE OF HEALTH SCIENCES
## SCHOOL OF NURSING & MIDWIFERY

# Women's Sexual Experiences and Adjustment after Cervical Cancer Treatment in Tikur Anbessa Specialized Hospital, Addis Ababa-Ethiopia: A Qualitative Study.

**BY: GASHAW YADA (BSC.)**

**ADVISORS**

1. **ENDALEW GEMECFHU (Ass. Professor, PhD)**
2. **TESHOME HABTE (MSc, Lecturer)**

**June 2019**

**Addis Ababa – Ethiopia**

# ADDIS ABABA UNIVERSITY

## COLLEGE OF HEALTH SCIENCES
## SCHOOL OF NURSING & MIDWIFERY

# Women's Sexual Experiences and Adjustment after Cervical Cancer Treatment in Tikur Anbessa Specialized Hospital, Addis Ababa-Ethiopia: A Qualitative Study.

**BY: GASHAW YADA (BSC.)**

**THESIS PROPOSAL SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY SCHOOL OF NURSING AND MIDWIFERY IN PARTIAL FULFILLMENT FOR THE REQUIREMENT OF MASTER OF SCIENCE DEGREE IN CLINICAL ONCOLOGY**

**June 2019**

**Addis Ababa – Ethiopia**

## Approval Sheet

### ADDS ABABA UNIVERSITY

### COLLEGE HEALTH SCIENCE SCHOOL OF NURSING AND MIDWIFERY

### Approval sheet

I, the undersigned MSc student, declare that I have submitted my original work on a title **prevalence of depression and associated factor among primary care givers of adult cancer patient attending at Hawasa University Specialized Hospital South Ethiopia, 2019**

**Submitted by:**

---------- _____ 7/2/2019

Name of student Signature Date

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

Approved by:

**1.** Endalew Gemechu (Ass. Professor, Ph.D. fell)_  6/19/2019

Name of Major Advisor Signature Date

**2.** Teshome Habte (MSc) _____ 6/19/2019

Name of Co-Advisor Signature Date

**APPROVAL BY THE BOARD OF EXAMINATION**

This thesis by Gashaw Yada is accepted in its present form by the board of examiners as satisfying thesis requirement for the master of clinical oncology nursing.

EXAMINER

| | | | |
|---|---|---|---|
| Dr.HUSSIEN MEKONEN (PhD) | _____ | _____ | 7/2/2019 |
| NAME | RANK | SIGNITURE | DATE |

RESEARCH ADVISORS

| | | | |
|---|---|---|---|
| ENDALEW GEMECHU | Asst. profs. | | |
| _____ | _____ | _____ | 7/2/2019 |
| NAME | RANK | SIGNITURE | DATE |
| TESHOME HABTE (MSc) | | | |
| _____ | _____ | _____ | 7/2/2019 |
| NAME | RANK | SIGNITURE | DATE |

DEPARTMENT HEAD

| | | | |
|---|---|---|---|
| HIRHANU | | | |
| _____ | _____ | _____ | 7/2/2019 |
| NAME | RANK | SIGNITURE | DATE |

**APPROVAL BY THE BOARD OF EXAMINATION**

This thesis by Gashaw Yada (BSc) is accepted in its present form by the board of examiners as satisfying thesis requirement for the master of clinical oncology nursing.

EXAMINER

| Dr.HUSSIEN MEKONEN | (PhD) | _____ | 7/2/2019 |
|---|---|---|---|
| NAME | RANK | SIGNITURE | DATE |

RESEARCH ADVISORS

| Endalew Gemechu | (Ass. Professor, Ph.D. fell ) | _____ | 7/2/2019 |
|---|---|---|---|
| NAME | RANK | SIGNITURE | DATE |

| _____ | _____ | _____ | 7/2/2019 |
|---|---|---|---|
| NAME | RANK | SIGNITURE | DATE |

DEPARTMENT HEAD

| _____ | _____ | _____ | 7/2/2019 |
|---|---|---|---|
| NAME | RANK | SIGNITURE | DATE |

## STATEMENT OF DECLARATION

By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis.

This thesis is submitted in partial fulfillment of the requirement for a graduate degree from the Addis Ababa University at College of Health Sciences, School of Nursing and Midwifery. The thesis is deposited in the Addis Ababa University Digital Library and is made available to local, national and international scientific community. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

Brief quotations from this thesis may be used without special permission provided that accurate and complete acknowledgement of the source is made. Requests for permission for extended quotations from, or reproduction of, this thesis in whole or in part may be granted by the Head of the Department or all advisers of the theses when in his or her judgment the proposed use of the material is in the interest of scholarship and publication. In all other instances, however, permission must be obtained from the author of the thesis.

Student name: Gashaw Yada

Signature: _____

Date 7/3/2019

.

.

## Acknowledgements

Above all, I glorify my heavenly father and savior Jesus Christ who is worthy to be praised for the opportunity, wisdom and strength he gave me, to enrich my life and others by doing this project. Next, I would like to express my gratitude to my major advisors Endalew Gemechu (Ass.prof) and co-advisor Teshome Habte (MSc), for their invaluable comment and professional advice in the preparation of this thesis project. It is due to their unreserved help that I have come up with such study. My acknowledgement also extends to Addis Ababa University, College of Health Sciences, School of Nursing and Midwifery, for giving me this great chance.

I wish to express my deep appreciation to all women who had participated in this study, for volunteering to give their precious time and sharing their experiences, without their participation, this project wouldn't have been possible.

Last but not least I extend my appreciation to my wife Hirut Tadesse for giving me moral and financial support, and going an extra mile to care for our children.


.

,

# Contents

.

# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| AA | Africa America |
| BLH | Black Lion Hospital |
| BSC | Bachelor of Science |
| CC | Cervical Cancer |
| DNA | Deoxy Ribonucleic Acid |
| EBRT | External Beam Radiation Treatment |
| GLOBOCAN | Global Cancer Incidence, Mortality and Prevalence |
| MRN | Medical Record Number |
| NIC | National Cancer Institute |
| NGO | Nongovernmental Organization |
| SES | Socio Economic Statues |
| QDA | Qualitative Data Analyses |
| RT | Radiation Therapy |
| WHO | World Health Organization |

.

# Abstract

**Background:** Cervical cancer continues to be one of the most common cancers and one of the leading causes of cancer deaths globally. Women's experiences and sexual adjustment after treatment once started for cervical cancer remain relatively unexplored particularly in Ethiopia.
**Objective**: This study aimed to explore the experiences of women and sexual adjustment after treatment for cervical cancer in Black Lion Specialized hospital.

**Method**: A phenomenological approach was applied and semi structured interviews were used to collect the data between February and March 2019. The interviews were audio-taped and analyzed using the procedures of thematic content qualitative data analysis.

**Results:** From the analysis of individual interview data, four themes emerged, namely, Treatment Side effect, Sexual Problems after radiation therapy, Knowledge deficient and coping strategies of sexual relation which reflect women's cervical cancer treatment related problems.
**Conclusion:** The findings of this study added to the existing body of knowledge on Sexual experience of women after pelvic radiotherapy for cervical cancer in Ethiopia and elsewhere. Sexual lives of women are affected due to various reasons and pelvic radiotherapy for the treatment of cervical cancer. Health professionals should be aware of these effects and should encourage their patients to express their problems and provide effective, individual counsel to each client.
**Recommendations:** There should be well-established integrated service set up to address the sexual related problems as a result of treatment side effect on the patient's physical, psychological as well as social problems of the treated women in Tikur Anbessa Hospital. In addition to that health professionals should accomplish their responsibilities to address the women in need, More staffs should be considered to decrease work load and get enough time to tackle the problems which could decrease the influences related with knowledge deficit and Federal Ministry of Health should give emphasis for women who receive radiotherapy treatment and its consequences on sexuality dysfunction and the impact on the quality of life.


.**Key words:** Cervical cancer, sexual experience, adjustment, Addis Ababa

# CHAPTER ONE

## INTRODUCTION

Cervical cancer (CC) is the fourth most common female cancer with estimated incidence and mortality of 528,000 and 266,000 respectively in the world (1). Cervical cancer is likely to have a profound effect on women's physiologic, anatomic, and psychological ability to engage in sexual activity (2). Previous studies reported that the patients with cancer might experience various physical changes associated with the changes of vaginal structure and size. Some of these changes might threaten the patient's self-concept, body image and bring conflicts in the intimate relationship with the spouse (3) In general; there is a significant decline in sexual function among cervical cancer survivors after treatments. Research studies have focused on the quality of life of cervical cancer survivors, with regard to the quality of their sexual relations (4) In addition to that exploration of psychosexual sequelae following treatment for gynecological cancer is clearly indicated to facilitate the development of interventions aimed at improving sexual adjustment and thus enhancing quality of life for these patients(5). Furthermore treatment of gynecological cancers can have a unique, direct impact upon significant components of a woman's sexuality (e.g. sexual interest and responsiveness) and their perceived role as a woman in their family and society (6). Post treatment disruptions to sexual functioning, such as reduced libido and dyspareunia, commonly persist when other areas, such as mental health and social adjustment, have normalized (7). And also studies reported that the patients with cancer might experience various physical changes associated with the changes of vaginal structure and size. Some of these changes might threaten the patient's self-concept, body image and bring conflicts in the intimate relationship with the spouse (8)**.** Many patients never regain pre treatment sexual functioning and cervical cancer survivors treated with radiotherapy had worse sexual functioning than did those treated with radical hysterectomy and lymph node dissection(9). Based on these facts quality of life is most compromised among patients with inoperable cervical cancer treated by radiotherapy, with a majority reporting deterioration in physical, emotional, social, and economic support (10).It is estimated 78 879 women living in Africa will be diagnosed with cervical cancer annually, while 61 671 (78%) will die from this disease, which relates to a higher incidence to mortality ratio than those of the developed world (11) a participant revealed that

significant changes in the sexual domain resulting in marital discordance and waning partner support over the course of treatment and survival (12).

According to global cancer incidence, mortality and prevalence (Globocan), there were about 7,095 newly diagnosed cervical cancer cases and 4,732 cervical cancer deaths in 2012 in Ethiopia, accounting for about 17.0% of total cancer cases and deaths in females. It is the second most commonly diagnosed cancer as well as the second leading cause of cancer-related deaths in women in Ethiopia (13).Cervical cancer ranks as the second most frequent cancer among women in Ethiopia, there is an increasing number of long-term survivors for whom quality of life is major importance in spite of lack of rehabilitation support based on their need and interest thus, this study aimed at providing in-depth information of cervical cancer patient sexual experience and sexual adjustment for better understanding of the experiences of this specific group could inform the provision of supportive care services in Tikur Anbessa Specialized Hospital.

## Statement of the problem

Internationally, the burden of cervical cancer falls most heavily on developing nations. About 85% of the cases and 88% of the deaths due to cervical cancer occur in developing nations. women in developing nations are at a 35% greater lifetime risk of developing cervical cancer than women in high-income .In Ethiopia ,where oncology practice is so young, awareness even among medical professionals about oncology is much lower than expected. In Ethiopia like most of sub-Saharan Africa countries doesn't have cancer registry. The Ethiopian oncology service in organized way was started in Tikur Anbessa specialized hospital since 1998 Ethiopian calendar, and the record was covered since then the first fourteen top cancer among registered in the registration book gynecology malignancy is found to be the leading malignancy which covers (36.6%). Uterine cervix, ovary, endometrium and vulvae cancer are among malignancies listed under the gynecology malignancy according to the study and most of the patients are found in productive age group between ages 40 to 50 such characteristics of the disease made the burden on the society become worse in the countries (14).Cancer treatment significantly affects the sexuality function of the patients with cancer. Providing and discussing information regarding sexuality problems with the patients are some important measures that should be done by the healthcare professionals (15, 16).The sexual behavior of women needs to be addressed holistically, because sexuality is comprehensive construct, which requires incorporation of a variety of individual, social and cultural dimensions (17).

What is more is that the patients could hardly solve this sort of problem only by themselves or with their spouses. They need assistance from the nurses to address the problems related to sexuality following the cancer diagnosis and treatment (18).

## Objectives

- To explore women's sexual experiences after treatment for cervical cancer in Tikur Anbessa Specialized Hospital, Addis Ababa
- To explore women's coping mechanism(adjustments) with the treatment and/or side-effects of the treatment in Tikur Anbessa Specialized Hospital, Addis Ababa

## Research Questions

This study tries to search and answer the following questions.

1. What sexual experiences women suffered after cervical cancer treatment?

2. What women do coping mechanism (adjustments) with the treatment and/or side-effects of the treatment?

**Significance of the study**: This study capable to advocate a broad view of sexuality, emphasizing relationship and sensuality as essential components for sexual satisfaction. It makes an effort to uncover trends in thought and opinions, and dive deeper into the problem and have the potential to generate answers to complex questions. Understanding the influence of cervical cancer on survival is crucial to enable health and social professionals strengthen strategies to enhance the quality of life of women surviving cervical cancer. Almost no previous study has attempted to explore the personal experience of young and older cervical cancer survivors specifically using a qualitative approach, However only through a study of this sort can a holistic picture of the age-related needs of cancer survivors be understood and initiatives taken to address unmet needs that provide us valuable insights for theory development and clinical practice. The findings of this study will also serve as a reference for intervention to the health care providers and others for conducting further researches. In addition to this, it will have special importance for health care providers to serve as base line information for filling gaps of the actual practices and to improve woman's sexual health and quality of life. The result acquired from this study will also be scaled up the understanding of pattern of demand and medical intervention. It is also

provides imminent into the problem or helps to develop ideas or hypotheses for potential quantitative research. Moreover, the study can be an input to policy makers, program managers, health professionals to decide based on evidence and serves as a base line data for further studies.

## Definitions of Terms and Concepts

**Women patients:** For this study women patient are cervical cancer patients who are treated cervical cancer and under the medical care follow up and treatments starting from age eighteen.

**Cervical Cancer:** Cervical cancer is generally defined as a disease characterized by the abnormal growth of cells in the cervix, the region of the uterus that joins the vagina. Dorland's illustrated medical dictionary (1994) describes cervical cancer as Cervical cancer as an infection in which the cells of the cervix become abnormal and start to grow uncontrollably, forming tumors and common cause of cancer deaths in women. In light of this study, cervical cancer will be considered as those abnormal growths of cells of cervix, which necessitate treatment.

**Experience:** This term is self exploratory. The oxford concise dictionary (1997) defines experiences as actual observation of practical links with the facts and events and which leaves a lasting impression. This therefore suggests views and perception of patients.

**Sexual experience**: is the past events, knowledge, practice and feelings in sexual activity

**Sexuality**: is a person's capacity for sexual feelings.

**Adjustment:** is defined as a process where in women after cervical treatment builds variations in the behavior to achieve harmony with her, aim to maintain the state of equilibrium between her and her sexual experience.

# Chapter Two

## Literature Review

### 2.1 Burden of cervical cancer

Carcinoma of the cervix is a disease of major importance, often affecting women during their active, reproductive years. It is more prevalent among women of lower socioeconomic status, women who marry and begin experiencing sexual intercourse at an early age, prostitutes, multiparous women, and women previously treated for venereal disease (19).

Cervical cancer (CC) is a leading cause of cancer morbidity and mortality in women globally. in 2012, 528, 000 new cases and 270,000 deaths were estimated to have occurred worldwide, with the majority of these cases and deaths (90%) occurring in low- and middle-income countries this data may increase when there is integrated cancer registry existed (20).

Cervical cancer is the second most frequently diagnosed cancer and the leading cause of cancer death in African women. Rates vary substantially across regions, with the incidence and death rates in east Africa and west Africa as high as the rates in North Africa (21). Although there is no national cancer registry, reports from retrospective review of biopsy results have shown that cervical cancer is the most prevalent cancer among women in the Ethiopia followed by breast cancer (22). Breast and cervical cancers are the leading cancers among women in developing countries, with estimated annual new cases of 882,900 and 444,500 respectively, more than 324,300 and 230,400 women die from these cancers every year, respectively (23).

According to the study pattern of cancer in Tikur Anbessa Specialized Hospital oncology center in Ethiopia from 1998 to 2010 that 72.8% are females and the rest 27.2 % are males. Among all patients only 10% of patients did come to the center in early stage i and ii and also this study showed that the most common malignancy in female was gynecological malignancy (47%) followed by breast carcinoma 26%. ca uterine cervix found the most common malignancies among all gynecological malignancies (24).

The country has very few cancer specialists (only 4 qualified oncologists for the entire population). This makes it difficult for a great majority of the population to access cancer

treatment services, which results in long waiting times and cause many potentially curable tumors to progress to incurable stages (25).

Patient characteristics most patients came from rural areas (56.5%).The largest group of patients were 40–49 years old (30.9%). Many women reported only one lifetime sexual partner (52.7%), as well as marriage before the age of 18 (83.9%) (26).

Vaginal changes following radiation therapy for carcinoma of the cervix commonly occur and are related to dosage and tissue radiosensitivitys, moreover studies investigating these changes reveal thinning (denudation) of the vaginal epithelium, destruction of the small blood vessels and circumferential fibrosis resulting in vaginal stenosis or narrowing the commonest as different studies confirmed (27). Studies indicated that women who undergo radiotherapy, it is found that 42% of women have experienced vaginal toxicity due to radiotherapy, it is established that vaginal bleeding during sexual intercourse has increased 17 times after radiotherapy, It is found that 15.9% experiences vaginal stenosis and decrease in the length of vagina and 13% experienced vaginal dryness after radiotherapy,32.2% of women immediately experienced vaginal symptoms, 55.5% experienced 6 months after the treatment and 48.2% experienced 12 months after the treatment (28).

## 2.2 Cancer treatment methods

**Surgery:** is a medical specialty that uses operative manual and instrumental techniques on a patient to investigate or treat a pathological condition **.**when used to treat cancer, surgery is a procedure in which a surgeon removes cancer from the body . In different ways that surgery is used against cancer and it can be before, during, and after surgery.

**Radiation therapy**: radiation therapy is a type of cancer treatment that uses high doses of radiation to kill cancer cells and shrink tumors. Its ability to control cell growth ionizing radiation works by damaging the deoxy ribonucleic acid (DNA) of cancerous tissue leading to cellular death to spare normal tissues.

**Chemotherapy:** chemotherapy is a type of cancer treatment that uses one or more anti-cancer drugs as part of a standardized (chemotherapy regimen) and it is a type of cancer treatment to kill cancer cells. It can be used alone or with other treatment modalities.

**Immunotherapy to treat cancer:** immunotherapy is a type of treatment that helps the immune system fight against cancer.

**Targeted therapy:** is a type of cancer treatment methods that targets the changes in cancer cells that help them grow, divide, and spread. It enables to stop the cancer growth process.

**Hormone therapy:** is a treatment that slows down or stops the growth of breast and prostate cancers that use hormones to grow (29).

**Stem cell transplant**: is a procedure that restores blood-forming stem cells in cancer patient's bone marrow when stem cells destroyed by very high doses of chemotherapy or radiation therapy accordingly.

Precision medicine: is a modern medicine that helps doctors to select treatments l to help patients based on a genetic understanding of their disease.

**Side effect of cancer treatment:** anemia, appetite loss, bleeding and bruising (thrombocytopenia), nausea and vomiting, constipation delirium, diarrhea, edema (swelling), fatigue, fertility issues in boys and men, fertility issues in girls and women, hair loss (alopecia), infection and neutropenia, lymph edema, , nerve problems (peripheral neuropathy),memory or concentration problems, mouth and throat problems, ,pain, sexual health issues in men, sexual health issues in women, skin and nail changes, sleep problems and urinary and bladder problems (30).

Cervical cancer survivors treated with surgery have far less sexual dysfunction than women treated with radiotherapy at long-term follow-up (7 years) and consistently increased morbidity across all measures in irradiated women is striking, and persists for sexual functioning even after controlling for potentially confounding factors such as educational level and tumor stage(29).Treatment modalities the majority of patients received radiotherapy; only 4.4% received surgery only for early stages of the disease(31).

Radiation therapy used to treat cervical cancer and has far reaching effects on sexual functioning, and radiation causes changes in the blood vessels in the walls of the vagina leading to fibrosis (32).

Patients treated for cervical cancer by irradiation radiotherapy are likely to experience radiation-induced injuries to the genitals and surrounding organs (33).Drastic differences in the vaginal wall between the irradiated cervical cancer survivors and the controls, indicating that radiotherapy-induced vaginal symptoms are mediated by connective tissue fibrosis and elastosis. The results also support that patients treated with external radiation have the highest risk of developing vaginal fibrosis with impairment of their sexual health (34). Also loss of epithelial tissues results in lack of lubrication, which compounds this collateral radiation damage to the ovaries leads to estrogen deficiency, which in turn leads to further thinning of the vaginal walls (35**).** Women have reported extreme sensitivity to touch at the vaginal introitus, friable tissues, and a burning sensation when the vagina was exposed to semen during intercourse. (36) In addition to that cervical cancer survivors treated with radiotherapy had worse sexual functioning than did those treated with radical hysterectomy and lymph node dissection many participants experienced one or more sexual dysfunctions often causing feelings of distress. Most participants reported having been asked about their sexual functioning, although attention for sexual functioning was often limited and medically oriented. Considering sexuality a taboo topic hampered some participants to seek help. Many participants desired information about treatment consequences for sexual functioning, practical advice on dealing with dysfunctions, and reassurance that it is common to experience sexual dysfunction (37)

.

# Chapter Three

## 3.1. Research Method

Qualitative study research design was employed for this study. The rationale behind using qualitative research method was that qualitative research is well suited for understanding phenomena within their context, discovering links among concepts and behaviors (38, 39).A qualitative research method is appropriate for this study because the aim is to realize and describe human experiences, namely what it is like women sexual experience after cervical cancer treatment? In this study a qualitative research provide an insight into how women patients make sense of their sexual experience after treatment and its coping. Human emotions or experiences are not easy to quantify or assign numerically therefore a qualitative approach is appropriate. Evidences from more than one case are often considered to be stronger than evidences from a single case. (40). in this research, Multiple case study were studied where a cases refers to women who have sexual experience after cervical cancer treatment.

## 3.2. Study Site and Time Frame

This study was conducted in black lion hospital which is found in Addis Ababa city, the capital of Ethiopia. Tikur Anbessa Specialized Hospital (TASH) is a teaching, central tertiary generalized referral hospital with approximately 800 inpatients beds. It is the largest and best known public hospital which was built in the early 1960's (41). The clinic is housed in a separate, newer building on hospital grounds and consists of three floors: the clinic with three examination rooms, physicians' offices, waiting room, pharmacy, and radiation vaults; a floor for the inpatient ward; and a floor for meeting rooms. The center has limited facilities for radiological diagnostics. There are currently four oncologists, one hematologist, three radiotherapists and 15 nurses working at the cancer center in black lion hospital aspires to become a center of excellence in the diagnosis, treatment and care of patients with cancer. with the support of Ethiopia's governmental institutions, none governmental organizations and international partners, the hospital is hoping to develop a comprehensive cancer care program, including cancer registry, early detection, prevention, standard treatment and palliative care(43).

This study conducted from February to May 2019.

### 3.3. Study Participants

Data were collected from women of cervical cancer patients who were diagnosed and treatments completed before three month and above during study period in the Radiotherapy units of Tikur Anbessa Referral Hospital were research participants of the study. Even though the researcher initially planned to interview 8 patients, the number of participants have been increased to 13 due to the fact that data acquired from the interview was continued to vary and the researcher wanted to gather adequate and insightful information regarding women's sexual experiences and their coping methods after treatment of cervical cancer.

**3.4. Sampling Technique and Participants Selection Procedure:** A purposive sampling technique were used as it is essential to identify and include information rich cases that could give a full understanding of the women's sexual experience and their coping means after cervical cancer treatment. Purposeful sampling were geared at measuring certain characteristics but also utilized to learn or understand something. Corresponding to the aim of the research, it has attempted to explore, analyze and understand the sexual experiences of women and their adjustment after cervical cancer treatment (44).

**3.5. Inclusion and Exclusion criteria**: Careful considerations have been given to the aim of the research to make decisions about the desired ranges and characteristics of participants. Women patients were included not only on the basis of their willingness to participate in the study; but participants have been included with the assumption that they were presumed to be representative to certain pre established criteria. Therefore individuals selected for the sample were women patients over the age of eighteen years, treated for cervical cancer in Black Lion General Referral Hospital, have the ability to make conversations in Amharic language and who have the ability to contribute to the understanding of their psychosocial experiences and needs regarding the issue. Exclusion criteria for the study were comprised women who are not sexually active and received less than 3-month course of cervical cancer treatment, mentally ill and inability to communicate and difficulties to communicate in Amharic languages.

**Data Collection Technique:** In-depth interviews were employed for this study. Documents were reviewed which served for cross checking the medical history and biographic data of each patient given by during in-depth interview. The researcher used in-depth interview as a primary

tool for data collection. Interview is an essential source of information (45). In-depth interview was believed to best suite the investigation of what individual's experience was, how they experienced it in terms of the conditions, situations, or context, their attitudes and thoughts were gathered (45).Therefore a well organized unstructured interview questions which has three domains namely(1) What sort of treatment did you receive for your cervical cancer?. (2) The what were the effects of the treatment on your relationship with your partner? (3) What helped you cope with the treatment and/or side-effects of the treatment? Each of them has related probing question attached on Annexes and also in addition to the researcher one oncology master female clinical nurse data collector participated on the data collection together with the researcher. Tape audio recorder and stationeries were used. The data collection were finally took place at two site, At Tikur Anbessa hospital and Ethiopian cancer association center where patients who come from far away and poor got food and shelter from donors (where found behind St. Paul Hospital Millennium Medical College Addis Ababa) there at both areas patient privacy kept as much as possible in the interview .The primary data collector was the researcher himself and together with the oncology clinical nurse. And interview done35 to45 minute averagely. At the sometime participants medical history obtained and organized with participant's recorded content then thematic analysis proceeded side by side in order to follow interview saturation

Purpose of this interview was to explore the experiences, feelings and emotions, and means of coping of women after Cervical Cancer Treatment and to assemble detailed descriptions of phenomenon (47).Unstructured interview with patients was the major techniques of data collection views unstructured interview as in-depth and phenomenological. The goal of unstructured interview is to extract the patient's experiences. The advantage of unstructured interviews is therefore, it will facilitate in-depth exploration. Moreover it is most appropriate where little is already known about the study phenomenon or where detailed insights are required from individual participants. It is also particularly appropriate for exploring sensitive topics, where participants may not want to talk about such issues (48).

.

.

.

.

## 3.7. Measures taken to Improve Trustworthiness of the Data

Data collected through different techniques a variety of measures were taken. Trustworthiness is the ability of researchers to convince participants and self that the findings of the inquiry are direct, truthful, or reliable (49). Qualitative research is trustworthy when it accurately represents the experience of the study participants (50). Trustworthiness is enhanced (improved or increased in quality) by credibility, transferability and conformability (51). Credibility refers to "the confidence in the truth of the data". The truth value of this study was obtained from the sexual experience cervical cancer patients after treatment, the research design used, method of data collection and the context in which the study was conducted (52).The researcher have applied three techniques to achieve the credibility: My experience with cancer issues and terminologies which the researcher was developed during engagement in field practicum in the institution and in other health related courses, triangulation of data's from different sources (secondary and primary sources) and allowed peer checking of the final result. Transferability refers to "the extent to which the findings can be applied in other contexts or with other participants" (53). As the research is qualitative by its nature, the researcher was not interested in the generalization of the findings. All data's were defined in terms of the specific context in which they occurred. Conformability refers to "the degree to which the findings are the product of the focus of the inquiry and not the biases of the researcher" (54). A conformability audit trial must ensure that conclusions, interpretations recommendations can be traced to their sources and if they are supported by the inquiry (55). The following ensure conformability of data, when the interview is conducted, Field notes were taken furthermore the interviews were tape-recorded hence the raw data is available. By refining the data collection instrument in the course, by using codes and categorization and by developing themes from the coded data, the data's were analyzed without my personal biases.

.

## 3.8. Ethical Considerations

Ethical clearance obtained from institutional review board research ethical committee of School of Nursing And Midwifery, Addis Ababa University. Consent from medical director and cancer treatment center focal person of Black Lion Hospital obtained and through voluntary written and verbal consent obtained from participants themselves after appropriate information given such as; "the purpose and duration of the study, procedure in the study, the right to withdraw from the study, the right to ask questions, and the potential risks and benefits of the study" (56). The respondents were informed in detail about the purpose of the research, interview procedures and the use tape recording during the interview. The researcher took utmost care to ensure privacy, confidentiality and anonymity of participants. To maintain confidentiality, the participants' real name has not been used; rather code names were given to participants throughout the research processes (57).Tape recording was used only when the participants' consent was ensured. The recorded tapes and transcriptions were kept in a locked place until the study was completed and approved by the school of nursing and midwifery. Besides, participants were informed that they can take a break, skip questions, and even withdraw at any time during the interview. Depending on the magnitude of financial problems patients' are facing I was also morally forced to give money to the patients from my own.

## 3.9. Data Analysis Procedures

Data analysis was done simultaneously with data collection since the design of the research is qualitative. To do this, in-depth interview was recorded and written down in the paper and then translated in to English. Furthermore during the interview field notes were taken concerning the participant's gestures, tones and other body languages. In doing so, the researcher followed the thematic content analysis method which involves transcription, translation, coding and categorization and develops themes and interpretations the researcher intended to do it manually. Thematic analysis focuses on the coding of quality data, producing clusters of text with similar meaning often searching for the fundamental them and capturing the real meaning of the phenomena under exploration (58).

# RESULTS

## Participant's Socio-Demographic characteristics

Thirteen women fulfilled the eligibility criteria and in addition to them one women gynecologist doctor were participated totally they were fourteen participants, in addition to these seven were not accept the request to participate for the discussion three of them were due to language barrier and one of them were due to the sensitive nature of the inquiry and three of the rest due to lack of willingness to participate in the study. In general fourteen a face to face in-depth interview was conducted. All participating women with in the age range of (19-65) .All cervical cancer patient participant received radiation treatment of those eight women received external beam radiation treatment, two received combined treatment of external beam radiation treatment and surgery, and the rest three received external beam of radiation with Brachy therapy for their cervical cancer disease treatment.

..

## Emerged themes

From the analysis of individual interview data, four themes emerged. These themes were identified as the rich and detailed account of the experiences sexually active women who have received at least 3-month course of pelvic radiotherapy for cervical cancer at Black Lion Specialized Hospital.

| **Theme** | **Categories** |
|---|---|
| **1:** Treatment Side effect | – Immediate effect<br>– Late effect |
| **2:** Sexual Problems after radiation therapy | – Sexual unwillingness<br>– Fear of sexual intercourse due to excessive pain |
| **3:**Knowledge deficient | – Inadequate information received from the health professionals |
| **4:** Coping strategies of sexual relation | – Husband waited for treatment process<br>– Not feeling like a woman<br>– Stopped having sexual relation for ever |

.

## Treatment Side effect

All women received radiation treatment for their cervical cancer. Eight women received external beam radiation treatment, two received combined treatment of external beam radiation treatment and surgery, and the rest three received external beam of radiation with Brachy therapy for their cervical cancer disease treatment. Most women who received radiotherapy reported various treatment side effects immediately and in the course of treatment.

### Unwanted immediate treatment effect

Women after cervical cancer treatment, according to their report they developed diarrhea, itching, headache, heart burn, vomiting, poor appetite, pain, skin change in texture and color, burning sensation while urinate and Vaginal discharge. Two or more of the mentioned symptoms occurred together on single women at the sometime. Possible reasons included the physiologic, psychological of the women, and prolonged treatment period, inducing other symptoms such as vomiting and diarrhea, and not being able to eat in a supine position. In addition to that as they reported the symptoms subsides themselves and if those symptoms beyond their resistance a medical support acquired ,but some of the symptoms last long like burning sensation during urination and vaginal discharge with different amount and contents Three participants remarked:

*".....everything what I ate come out from my belly looks yellowish, and also I went to toilet now and then…now and then I had no rest when it become worse I went to hospital even though out of earlier to my appointment and I got ORS then after some days it stopped and also my itching sensation were different it was day and night it hurt me a lot and subside after I took medicine…." (P-1)*

*".....when **I** was taking treatment, I had burning sensation,*

*I felt not good in my belly after I ate some food, and I had almost no appetite….."(*P-2**)**

And the other one commented on:

*"…….My legs got swelled and doctors suspect it might be due to clot formation the he ordered ultrasound but the radiologist confirmed and suggested there were no any clot formation and that was the effect of irradiation……..")(P-3}*

---

*"……My problem is sexual intercourse become a source of suffering, I would be happy when I could avoid such suffering. The only my husband and my own difficulty is sever burning sensation if it could avoided by any means my marriage would be saved……..")(*P-1)

Cancer treatment modalities have own negative impact on women patients of physical, psychological, emotional and other sexual functional complaints. Almost all of the participants in this study expressed pains in the intercourse mainly due to less lubricated vagina and add also they noticed vaginal narrowing. Another kind of complaints of these loss of sexual desire due to predetermined decisions to stop sexual intercourse in order to prevent reoccurrence of the disease as they thought .The following comment highlights two women's experiences of their fear of cancer recurrence because of having strong pain after intercourse. Commented on:

"*…….my pain during sexual intercourse not related to narrowing of my vagina, I think it is due to my cervical cancer that not cured…if it was cured ,it would not hurt me like this*……"(40years, mother of four children)

*"……I faced for sever burning like pain inside of my vagina during intercourse all the time, and I claim to him to go to down city and satisfy himself freely because day after day the problem has been worsening and become out of my control and I am fearing of the disease may come again….."(P-8)*

.

**Delayed effect of treatment**

The late effect pain symptom almost all participants reported with various types of painful symptom distress, with back pain being the most symptoms commonly after internal radiation. The pain intensity could provoke against their daily activities. One commented:

> *"……..I do not know why such disease on me, sometimes I think it might be as a result of bad works of mine in the past GOD know everything ,I have no any means to know about, my back is just wither I am on duty or at rest through the night whenever the back pain start the pain is so sever like someone beaten by an axel on his back then after pain radiated to my womb though I feel pain as if mother in labor just like that…."(P-4}*

## Sexual Problems after radiation therapy

Cancer treatment modalities have own negative impact on women patients of sexualities. Most women shared their sexual experiences as not willing to have sexual intercourse following cervical cancer treatment due to the disease process.

''I think sexual intercourse is the major a source of suffering and thinking the intercourse is impossible to think. The chance of recurrence is also high when you have sex''(p-6)

''I had experienced fear due to excessive pain during sexual intercourse and didn't have orgasm. So, you don't enjoy intercourse. I hope it might be improved after completion of the treatment'' (p-9)

"……. pain during sexual intercourse not related to narrowing of my vagina, I think it is due to the disease process …if it is cured it would not hurt me like this……"(p-12)

## Knowledge deficient about treatment process and sexual relations

The third theme that emerged from data analysis was *knowledge deficit*. Within the theme, one category *inadequate information received from the health professionals.* According to the study findings, lack of knowledge about treatment process and sexual relations was reported by most of the interviewed women. Sample responses in that regard included:

> ''I haven't ever heard about cervical cancer until I was diagnosed with it……..Health providers didn't tell us anything about treatment process and sexual relations. So, I didn't know whether to have sexual intercourse or not while on treatment''(p-10)

*''*……No one asked me openly about my sexuality. And I am ashamed to talk about the subject [sex]. I didn't feel it is important. '' (p-4)

## 4: Coping strategies of sexual relation

The study findings reveal that participants held some beliefs about coping strategies of sexual relation with their husband following cervical cancer treatment. The finding was evident in the following sample responses:

''I don't need to continue sexual intercourse. I just decided it myself to stop even after completion of therapy'' (p-3)

"….. *I* discussed with my husband to stop sexual intercourse due to excessive pain during sexual intercourse and fear of the recurrence of the disease process. After the completion of treatment, we can enjoy it [sex] and has promised me to wait for it…." (A 60 years old mother)

.

## Discussion

Cervical cancer patient participants in general, reported having impaired sexual functioning. The study by Cleary et al. stated that gynecological cancer patients reported having harmful changes in sexual relationships and sexual performance, which experienced sexual dysfunction in every stage of the sexual response (59) .Physical alterations also, occurred in cervical cancer patients receiving radiotherapy. Irradiated cervical cancer patient participant reported having decreased vaginal lubrication, loss of sensations, reduced libido and shortened vagina. These findings were consistent with the study of Rasmussen and Thom that radiotherapy reduced vaginal lubrication and cytostatic treatment, and that drugs retarded cellular activity and Sexual Functioning of Gynecological Cancer Patients (60).

Patients coped better with treatment procedures, no matter how traumatic they had been, than they did with unexpected complications that occurred thereafter. Where side-effects were unexpected, the patient's sense of control and dignity seemed undermined which may have resulted in feelings of anger and resentment. These results are consistent with previous studies which found that psychological factors such as a sense of control (related to informed decision making), and self-esteem among others, rather than the nature of the treatment itself, are significant factors in sexual adjustment (61). A majority of women in this sample felt that they had misconception about the treatment and what kind of disease they had and which their expectation based , which lead to misinterpretations of bodily and functional changes associated with various treatment modalities. Since patients in various stages of shock and distress perceive, understand and recall information differently, the displayed reactions of the patients need not accurately express their inner confusion and thus may mislead the clinician. Therefore, a closer inquiry by the clinician as to how clearly the patient has understood the anatomical and physiological implications of their treatment may prove useful. However, there may well be a case for the introduction of sexual matters at the initial consultations prior to the beginning of treatment schedules, thus laying the foundation for future discussions (62). It is particularly important that the patient is informed about any potential treatment-induced changes in her sexual responses. The current results indicated that patients require the services of psychological and medical professionals long after the initial physiological healing is complete. It seems that patients would benefit from discussions specific to sexual matters in follow-up sessions when the recommencement of sexual activity is likely to have occurred (63).

Even though the need for sexual information was found to be a very important in cervical cancer patients, most healthcare professionals unsuccessful to address their patients' needs in clinical settings especially sexual related issues because they felt uncomfortable about initiating the discussion or because they had inadequate time of discussion or knowledge relating to the alterations in sexuality after the diagnosis and treatment of cervical cancer (64).The patients were become quiet in seeking help because of shame (65). There is a need for healthcare professionals to be sensitive to the needs of their patients, as well as to implement the appropriate type and source of supportive psychosexual interventions at suitable timing for patients with various cultural beliefs. Therefore, healthcare professionals should take positive roles to initiate the discussion of sexuality with cervical cancer patients (66).in these study findings showed that women faced for multiple unwanted effect of treatment by invasive treatment modalities received by them. During the in-depth interview the shared their lived experience in Tikur Anbessa hospital related with the disease and sexual health based communication with the responsible health professionals.

Women after cervical cancer treatment experience disease related anxiety or disease. In literature, it is stated that cancer patients with high distress have identified sexual problems more and in these participants, it is claimed that there are decrease in interest towards sexual relationship. Additionally related with the disease there are physical functionality disorders, feeling tired and intense sexual function disorders and relationship with the husband can make these problems worsen. Treatment Process after the first diagnosis effects patients' sexual functions and sexual lives negatively (67).

..

## Conclusion and Recommendation

From the analysis of individual interview data, four themes emerged, namely, Treatment Side effect, Sexual Problems after radiation therapy, Knowledge deficient and coping strategies of sexual relation. This study is the first of its kind in Ethiopia. The findings of this study added to the existing body of knowledge on Sexual experience of women after pelvic radiotherapy for cervical cancer in Ethiopia and elsewhere. Sexual lives of women are affected due to various reasons and pelvic radiotherapy for the treatment of cervical cancer. Health professionals should be aware of these effects and should encourage their patients to express their problems and provide effective, individual counsel to each client. The result of the study suggested that there should be well-established integrated service set up to address the sexual related problems as a result of treatment side effect on the patient's physical, psychological as well as social problems of the treated women in Tikur Anbessa Hospital. In addition to that health professionals should accomplish their responsibilities to address the women in need, More staffs should be considered to decrease work load and get enough time to tackle the problems which could decrease the influences related with knowledge deficit and Federal Ministry of Health should give emphasis for women who receive radiotherapy treatment and its consequences on sexuality dysfunction and the impact on the quality of life.

## Limitation of the study

While results may not be generalizable for the data were collected through Individual Interviews they may be transferable to other settings of similar features. It should also be clear that the emerged themes were substantiated by the local and global works.

## References


1. Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray F. GLOBOCAN 2012: Estimated Cancer Incidence, Mortality, and Prevalence Worldwide in 2012. International Agency for Research on Cancer. World Health Organization. 20143
2. Afiyanti Y. Attitudes, Belief, and Barriers of Indonesian Oncology Nurses on Providing Assistance to Overcome Sexuality Problem. Nurse Media Journal of Nursing. 2017 Jul 5; 7(1):15-23.
3. Gotay CC, Farley JH, Kawamoto CT, Mearig A. Adaptation and quality of life among long-term cervical cancer survivors in the military health care system. Military medicine. 2008 Oct 1; 173(10):1035-41.
4. Juraskova I, Butow P, Robertson R, Sharpe L, McLeod C, Hacker N. Post-treatment sexual adjustment following cervical and endometrial cancer: A qualitative insight. Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer. 2003 Apr; 12(3):267-79.
5. Burns M, Costello J, RYAN-WOOLLEY B, Davidson S. Assessing the impact of late treatment effects in cervical cancer: an exploratory study of women's sexuality. European journal of cancer care. 2007 Jul; 16(4):364-72.
6. Juraskova I, Butow P, Robertson R, Sharpe L, McLeod C, Hacker N. Post-treatment sexual adjustment following cervical and endometrial cancer: A qualitative insight. Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer. 2003 Apr; 12(3):267-79.
7. Afiyanti Y. Attitudes, Belief, and Barriers of Indonesian Oncology Nurses on Providing Assistance to Overcome Sexuality Problem. Nurse Media Journal of Nursing. 2017 Jul 5; 7(1):15-23.
8. Frumovitz M, Sun CC, Schover LR, Munsell MF, Jhingran A, Wharton JT, Eifel P, Bevers TB, Levenback CF, Gershenson DM, Bodurka DC. Quality of life and sexual functioning in cervical cancer survivors. Journal of Clinical Oncology. 2005 Oct 20; 23(30):7428-36.
9. Kamau RK, Osoti AO, Njuguna EM. Effect of diagnosis and treatment of inoperable cervical cancer on quality of life among women receiving radiotherapy at Kenyatta National Hospital. East African medical journal. 2007; 84(1):24-30.
10. Maree JE, Mosalo A, Wright SC. 'It depends on how the relationship was before you became ill': B lack South African women's experiences of life partner support through the trajectory of cervical cancer. European journal of cancer care. 2013 Jul; 22(4):459-67.

11. Maree JE, Mosalo A, Wright SC. 'It depends on how the relationship was before you became ill': B lack South African women's experiences of life partner support through the trajectory of cervical cancer. European journal of cancer care. 2013 Jul; 22(4):459-67.
12. Torre LA, Siegel RL, Ward EM, Jemal A. Global cancer incidence and mortality rates and trends—an update. Cancer Epidemiology and Prevention Biomarkers. 2016 Jan 1; 25(1):16-27.
13. Tigeneh W, Molla A, Abreha A, Assefa M. Pattern of cancer in Tikur Anbessa specialized hospital oncology center in Ethiopia from 1998 to 2010. Int J Cancer Res Mol Mech. 2015; 1(1).
14. Haesler E, Bauer M, Fetherstonhaugh D. Sexuality, sexual health and older people: a systematic review of research on the knowledge and attitudes of health professionals. Nurse education today. 2016 May 1; 40:57-71.
15. Wilmoth MC, Spinelli A. Sexual implications of gynecologic cancer treatments. Journal of Obstetric, Gynecologic, & Neonatal Nursing. 2000 Jul; 29(4):413-21.
16. Fernandes WC, Kimura M. Health related quality of life of women with cervical cancer. Latin American nursing journal. 2010 Jun; 18 (3): 360-7.
17. Moelle U, Mathewos A, Aynalem A, Wondemagegnehu T, Yonas B, Begoihn M, Addissie A, Unverzagt S, Jemal A, Thomssen C, Vordermark D. Cervical Cancer in Ethiopia: The Effect of Adherence to Radiotherapy on Survival. The oncologist. 2018 Mar 22: theoncologist-2017.
18. Abate SM. Trends of cervical cancer in Ethiopia. Gynecol Obstet (Sunnyvale). 2015; 5(103):2161-0932.
19. Akbaba S, Oelmann-Avendano JT, Bostel T, Rief H, Nicolay NH, Debus J, Lindel K, Foerster R. Percutaneous parametrial dose escalation in women with advanced cervical cancer: feasibility and efficacy in relation to long-term quality of life. Radiology and oncology. 2018 Sep 11; 52(3):320-8.
20. Memirie ST, Habtemariam MK, Asefa M, Deressa BT, Abayneh G, Tsegaye B, Abraha MW, Ababi G, Jemal A, Rebbeck TR, Verguet S. Estimates of Cancer Incidence in Ethiopia in 2015 Using Population-Based Registry Data. Journal of Global Oncology. 2018 Mar 28; 4:1-1.
21. Tigeneh W, Molla A, Abreha A, Assefa M. Pattern of cancer in Tikur Anbessa specialized hospital oncology center in Ethiopia from 1998 to 2010. Int J Cancer Res Mol Mech. 2015; 1(1).
22. Federal Ministry of Health Ethiopia disease prevention and control directorate national Cancer Control Plan 2016-2020 October 2015

23. Kantelhardt EJ, Moelle U, Begoihn M, Addissie A, Trocchi P, Yonas B, Hezkiel P, Stang A, Thomssen C, Vordermark D, Gemechu T. Cervical cancer in Ethiopia: survival of 1,059 patients who received oncologic therapy. The oncologist. 2014 Jul 1; 19(7):727-34.
24. Kantelhardt EJ, Moelle U, Begoihn M, Addissie A, Trocchi P, Yonas B, Hezkiel P, Stang A, Thomssen C, Vordermark D, Gemechu T. Cervical cancer in Ethiopia: survival of 1,059 patients who received oncologic therapy. The oncologist. 2014 Jul 1; 19(7):727-34.
25. Katz A. Interventions for sexuality after pelvic radiation therapy and gynecological cancer. The Cancer Journal. 2009 Jan 1; 15(1):45-7.
26. White ID, Allan H, Faithfull S. Assessment of treatment-induced female sexual morbidity in oncology: is this a part of routine medical follow-up after radical pelvic radiotherapy?. British journal of cancer. 2011 Sep; 105(7):903.
27. Moelle U, Mathewos A, Aynalem A, Wondemagegnehu T, Yonas B, Begoihn M, Addissie A, Unverzagt S, Jemal A, Thomssen C, Vordermark D. Cervical Cancer in Ethiopia: The Effect of Adherence to Radiotherapy on Survival. The oncologist. 2018 Mar 22: theoncologist-2017.
28. DW, Lanciano R, Keegan M, Corn B, Martin E, Hanks GE. Vaginal stenosis and sexual function following intracavitary radiation for the treatment of cervical and endometrial carcinoma. International Journal of Radiation Oncology* Biology* Physics. 1993 Nov 15; 27(4):825-30.
29. https://www.cancer.gov/about-cancer/treatment/types (national cancer institute)
30. Bruner DW, Lanciano R, Keegan M, Corn B, Martin E, Hanks GE. Vaginal stenosis and sexual function following intracavitary radiation for the treatment of cervical and endometrial carcinoma. International Journal of Radiation Oncology* Biology* Physics. 1993 Nov 15; 27(4):825-30.
31. Lamb MA. Questions women ask about gynecologic cancer and sexual functioning. Developments in Supportive Cancer Care. 1998; 2:11-3.
32. Wilmoth MC, Coleman EA, Smith SC, Davis C. Fatigue, weight gain, and altered sexuality in patients with breast cancer: exploration of a symptom cluster. InOncology nursing forum 2004 Nov 1 (Vol. 31, No. 6).
33. Vermeer WM, Bakker RM, Kenter GG, Stiggelbout AM, Ter Kuile MM. Cervical cancer survivors' and partners' experiences with sexual dysfunction and psychosexual support. Supportive Care in Cancer. 2016 Apr 1; 24(4):1679-87.
34. Gilbert E, Ussher JM, Perz J. Sexuality after gynecological cancer: a review of the material, intrapsychic, and discursive aspects of treatment on women's sexual-wellbeing. Maturitas. 2011 Sep 1; 70(1):42-57.
35. Vermeer WM, Bakker RM, Kenter GG, Stiggelbout AM, Ter Kuile MM. Cervical cancer survivors' and partners' experiences with sexual dysfunction and psychosexual support. Supportive Care in Cancer. 2016 Apr 1; 24(4):1679-87.

36. Hyett N, Kenny A, Dickson-Swift V. Methodology or method? A critical review of qualitative case study reports. International journal of qualitative studies on health and well-being. 2014 Jan 1; 9(1):23606.
37. Patton MQ. Two decades of developments in qualitative inquiry: A personal, experiential perspective. Qualitative social work. 2002 Sep;1(3):261-83
38. Bradley EH, Curry LA, Devers KJ. Qualitative data analysis for health services research: developing taxonomy, themes, and theory. Health services research. 2007 Aug;42(4):1758-72
39. . Pope C, Ziebland S, Mays N. Qualitative research in health care: analysing qualitative data. BMJ: British Medical Journal. 2000 Jan 8;320(7227):114
40. Asher J, Banks D, Scheuren FJ. Statistical methods for human rights. New York: Springer; 2008
41. Tigeneh W, Molla A, Abreha A, Assefa M. Pattern of cancer in Tikur Anbessa specialized hospital oncology center in Ethiopia from 1998 to 2010. Int J Cancer Res Mol Mech. 2015;1(1).
42. Karnieli-Miller O, Strier R, Pessach L. Power relations in qualitative research. Qualitative health research. 2009 Feb;19(2):279-89
43. Bradley EH, Curry LA, Devers KJ. Qualitative data analysis for health services research: developing taxonomy, themes, and theory. Health services research. 2007 Aug;42(4):1758-72
44. Baxter P, Jack S. Qualitative case study methodology: Study design and implementation for novice researchers. The qualitative report. 2008;13(4):544-59)
45. Franklin C, Ballan M. Reliability and validity in qualitative research. The handbook of social work research methods. 2001; 4:273-92.
46. Higginbottom GM. Sampling issues in qualitative research. Nurse Researcher (through 2013). 2004 Jul 1;12(1):7
47. Dilley P. Interviews and the philosophy of qualitative research
48. Carstens JP. A qualitative exploration of clinical psychologists' understanding of spirituality in psychotherapy (Doctoral dissertation, University of Pretoria)
49. West E. History, organization and the changing culture of care: A historical analysis of the frontier nursing service. Journal of International Women's Studies. 2013; 14(1):218-35.
50. Ngwenya D. Research Design, Methodology and Data Collection Methods. InHealing the Wounds of Gukurahundi in Zimbabwe 2018 (pp. 117-140). Springer, Cham
51. Sirajudeen MS, Pillai PS, Shah UN, Mohan N. Content validity and inter-rater reliability of a checklist to assess the ergonomic practice of computer professionals. International Journal of Therapies and Rehabilitation Research. 2012 May 1; 1(2):11.
52. Leonard A, Grobler AF. Exploring challenges to transformational leadership communication about employment equity: Managing organizational change in South Africa. Journal of Communication Management. 2006 Oct 1; 10(4):390-406.

53. Kreuger L, Neuman WL. Social work research methods: qualitative and quantitative approaches: with Research Navigator. Pearson/Allyn and Bacon; 2006
54. Kreuger L, Neuman WL. Social work research methods: qualitative and quantitative approaches: with Research Navigator. Pearson/Allyn and Bacon; 2006
55. Kreuger L, Neuman WL. Social work research methods: qualitative and quantitative approaches: with Research Navigator. Pearson/Allyn and Bacon; 2006
56. Kreuger L, Neuman WL. Social work research methods: qualitative and quantitative approaches: with Research Navigator. Pearson/Allyn and Bacon; 2006
57. Muñoz-Leiva F, Porcu L, del Barrio-García S. Discovering prominent themes of Integrated Marketing Communication research from 1991 to 2012: A co-word analysis approach
58. Faithfull S. Radiotherapy. In: Kearny N, Richardson A, editors. Nursing patients with cancer principles and practice. Edinburgh: Elsevier, 2006; p. 265-282
59. Cleary V, Hegarty J, McCarthy G. Sexuality in Irish women with gynecologic cancer. Oncol Nurs Forum 2011; 38: E87- 96
60. Chow KM, Wong CY, Shek LL. Sexual Functioning of Gynecological Cancer Patients: A Literature.
61. Juraskova I, Butow P, Robertson R, Sharpe L, McLeod C, Hacker N. Post-treatment sexual adjustment following cervical and endometrial cancer: A qualitative insight. Psycho-Oncology: Journal of the Psychological, Social and Behavioral Dimensions of Cancer. 2003 Apr; 12(3):267-79.
62. Corney RH, Crowther ME, Everett H, Howells A, Shepherd JH. Psychosexual dysfunction in women with gynaecological cancer following radical pelvic surgery. BJOG: An International Journal of Obstetrics & Gynaecology. 1993 Jan;100(1):73-8
63. Cleary V, Hegarty J, McCarthy G. Sexuality in Irish women with gynecologic cancer. Oncol Nurs Forum 2011; 38: E87- 96
64. Khoo SB. Impact of cancer on psychosexuality: Cultural perspectives of Asian women. Int J Nurs Pract 2009; 15: 481- 8.
65. Bukovic D, Silovski H, Silovski T, Hojsak I, Sakle K, Hrgovic Z. Sexual functioning and body image of patients treated for ovarian cancer. Sex Disabil 2008; 26: 63-73.
66. Wilmoth MC, Hatmaker-Flanigan E, Laloggia V, Nixon T. Ovarian cancer survivors: Qualitative analysis of the symptom of sexuality. Oncol Nurs Forum 2011; 38: 699-708.
67. Cisic RS, Frankovic S. Using nursing peer review for quality improvement and professional development with focus on standards of professional performance. Nursing and Health. 2015

## ANNEXES Annex I: Information Sheet

**Name of Principal Investigator**: Gashaw Yada

**Name of the Organization**: Addis Ababa University College of health sciences school of nursing & midwifery postgraduate program

**Name of the Sponsor**: Harromaya University

**Introduction**: This information sheet and consent form was prepared for Black Lion Hospital, cancer treatment center. The aim of the form was to make the above concerned office clear about the purpose of the research work, data collection procedures and get permission to undertake the research.

**Purpose of the Research Project**: The main aim of this research was to explore Women's Sexual Experiences and Adjustment after Cervical Cancer Treatment in Black Lion Specialized Hospital, Addis Ababa- Ethiopia, 2019.

**Procedure**: In order to come up with the above mentioned findings according to the research criteria purposively participants selected for in-depth interview, each individual undergo for35 to 60 minute using semi structure questions and the interview recorded accordingly by using appropriate in-depth interview procedure..

**Risk and /or Discomfort**: By participating in this research project, there is totally no risk that comes to one whom participates in the interview; which is in turn important for overall planning and improvement of the program.

**Benefits**: The research have no direct benefit for the participant in this research. But the indirect benefit of the research for the participant and all other clients in the program is clear. This is because if program planners are preparing predicted plan there is a benefit for patient in the program of getting appropriate care and treatment services. Of all, the Research work has a paramount direct benefit for health care planners and managers

**Confidentiality**: The information collected from this research project was kept strictly confidential and information reviewed about the patients by this study was stored in a file, without name i.e. investigators use number codes to the record during the review. The information gathered was not accessible to anyone except the principal investigator and was kept locked with password and appropriate locks.

**Persons to contact:** Gashaw Yada: Tel: 0915098658

## Annexes II In-depth individual interview discussion Schedule

**Date----------**

**Time allocated; 35-60 min maximum**

- Welcome
- General introduction
- Establishing rapport
- Participant introduction
- Ensure participant have fully understood the information sheet
- Ensure informed consent has been obtained
- Remind the participant that participation is voluntary free to withdraw at any time
- Emphasis the nature of in-depth interview and intrinsic nature of confidentiality
- Inform that the interview is being recorded and insure equipment is working
- Begin recording and give first question probe to start the interview
- Summarize the key points of the discussion and provide opportunity for confirmation and feedback
- Give information regarding gaining access to the transcriptions
- Thank all for attending
- Refreshment

**Annex III: Participant consent form (English Version)**

Research title Women's sexual experiences and adjustment after cervical cancer treatment in Black Lion Specialized Hospital, Addis Ababa- Ethiopia: A Qualitative study.

Code number ---------- I understand that the purpose of this study explore women's sexual experience and adjustment after cervical cancer treatment .Similarly I am aware of participating in this study is voluntarily and do not have any payment or incentive. In addition, the information that is given is kept confidential and does not expose to another third party. This interview will be take place only if you agree to take part in the study and I sincerely ask you to give your genuine and true responses in the interview. So,

Would you agree to participate in study? Yes ---------- No----------

Signature of participant _____

Name and Signature of the data collector who sought the consent_____

## Annex IV: Data extraction sheet

Title of the study: Women's sexual experiences and adjustment after cervical cancer treatment in Black Lion Specialized Hospital, Addis Ababa

| part I: Socio demographic |
|---|
| 1. Medical record number(MRN) _____ |
| 2. Age _____years |
| . 3. Place of residence _____ |
| 1. Educational status_____ |
| 5. are you sexually active currently---------- |
| 6. Marital status _____ |
| 7. Parity(number of live birth) _____ |

.

,

| **Part two:- medical history** |
| --- |
| 1. Patient age at diagnosis _____years |
| 2. Date of diagnosis ____/____/____ |
| 3. Date of starting treatment ____/____/____ |
| 4. Stage of cancer at diagnosis---------- |
| 5. Treatment modality---------- |

**Semi –structured guide for women's participant interviews**

Title of the study: Research title Women's sexual experiences and adjustment after cervical cancer treatment in Black Lion Specialized Hospital, Addis Ababa

General introduction for the facilitator

As you know, I am ……. (Full name of the facilitator) and I am going to facilitate our discussion today. Our discussion will be on your personal views and experiences regarding your sexual experiences following cancer treatment. Before we go further, let us introduce ourselves and after the introduction.

| **Domain** | **Probing questions** |
|---|---|
| **1. What sort of treatment did you receive for your cervical cancer?** | – Please tell me what was involved for each treatment.<br>– What happened first, then, last?<br>– How did you feel while having the treatment?<br>– Was the treatment explained to you (including the role of dilators)?<br>– Overall, how did the treatment affect you? While you were having it? Immediately after the treatment? Some months after the treatment? |
| **2. What were the effects of the treatment on your relationship with your partner?** | – What were the effects of the treatment on your sexual functioning?<br>– How long after cancer treatments, did you resume your sexual life? |

| | |
|---|---|
| | – How did you get the information, which helped you make the decision to resume your sexual life?<br>– Did the disease affect your self-perception? If yes, how?<br>– Did the disease affect your body image? If yes, how?<br>– Did cancer treatments affect the communication between you and your partner? If yes, how? How did your partner communicate with you about those changes of your sexual life? |
| 3. **What helped you cope with the treatment and/or side-effects of the treatment?** | – Was there something the staff did or something your partner, family or friends did? Can you think of anything that may have reduced the side-effects of treatment?<br>– Is there any advice you would like to give to the hospital to improve the care of people like you in the future?<br>– Do you have some more things to tell me? |

**Annex V information sheet (Amharic version)**

እንደምን አደሩ/እንደምን ዋሉ? እኔ ----------እባላለሁ። አዲስ አበባ ዩንቨርስቲ የጤና ሳይንስ ኮሌጅ እናየ ነርሲንግ ትምህርት ቤት የድህረ ምረቃ የ ኦንኮሎጂ ክልኒካል ነርሲንግ ተማሪ ከማህፀን ካንሰር ህክምና በኋላ ያሉ የወሲብ ተሞክሮዎች እና ህመምተኞች የሚያደርጋቸው ማስተካከያ ልማዶችን በተመለከ ተጥናታዊ መረጃ በማሰባሰብ ሊይ እገኛሆሁ።

**የዚህጥናት አላማ ምንዴን ነው?**

የጥናቱ ዋ ና አላማ ከማህፀን ካንሰር ህክምና በኋላ ያሉ የወሲብ ተሞክሮዎች እና ህመምተኞች የሚያደርጋቸው ማስተካከያልማዶች ሁኔታ ጥናት ማዴረግ ነው። የጥናቱ ግኝቶችም ለፖሉሲአውጭዎች እና ለጤና እንክብካቤ ባለሙያዎች በእንክብካቤ አሰጣጥ ረገድ እንድምታ ሊኖረው ይችላል።ይህ ጥናት የአረጋውያንን እንክብካቤ በተመለከተ ተግባራዊነት ያላቸውን መመሪያዎች በማሻሻል ረገድ አስተዋጽኦ ለማድረግ የሚችል መረጃን እንደሚያመነጭ ይጠበቃሌ። ማንኛቸውም የተሰበሰበ መረጃ ኮድ ተሰጥቶት በሚስጥር የሚያዝ ይሆናሌ። በዚህም መሰረት የእርስዎ ማንነት በጥናቱ ላይ አይገለጽም።ሁ ሉም ሰነዶች ና በኮምፒውተር የተመዘገቡ መረጃዎች በጥንቃቄ የሚያዙ ይሆናል።የሚያያቸውም የጥናቱ ባለብት ብቻ ነው።እርስዎ በዚ ህ ጥናት የሚያደርጉት ተሳትፎ በፍላጎት ላይ የተመሰረተ ነው።በዚህ መሰረት እርስዎ ከጥናቱ በማንኛውም ጊዜ መውጣት ይችላሉ።

**የጥናቱ ጥቅም /ጉዳት**

በዚህ ጥናት መሳተፍ ቀጥተኛ ጥቅም አያስገኝም።ከጥናቱ የሚገኙ መረጃዎ ስቶች ከማህፀንህክምና በኋላ ካንሰር ከግብረ-ስጋ ግንኙነት ጋር ተያይዞ የሚገጥማቸውን ችግሮች ለመቀነስና ከግብረ-ስጋ ግንኙነት ህይወታቸውን ለማሻሻል እንደዚሁም ህይወታቸው እንዲሻሻል አስተዋጽዎ ማድረግ ይችላል።በዚህ መሰረት ይህንን የስምምነት ቅጽ እንዲያነቡና እንዲ ፈርሙ ይጠየቃል።ስለጊዜዎና ትብብርዎ እናመሰግናለን። ጥናቱን በተመለከተ ለሚኖሩ ማንኛውም ጥያቄዎች በሚመከተለው አዴራሻ መጠየቅ ይቻላል።

የጥናቱ ባለቤት ጋሻው ያዳ ፣ስልክ +251915098658፣Email; 21gashaw27@gmail.com

አማካሪ ;እንዳለው ገመቹ ፣ ስልክ +251911196298፣Email endalewaau2012@gmail.com

የስምምነትቅጽ

የመለያ ቁጥር----------

- የጥናቱን አላማ በሚገባ ተገንዝቤአለሁ።ይህ ቅጽ በሚገባኝ ሁንታ ተነቦልኛል/አንብቤዋለሁ። በተጨማሪም በዚህ ጥናት መሳተፍ በፍላጎት ላይ የተመሰረተ እና ምንም አይነት ማካካሻ እንደሌለው ተረድቻለሁ።የሰጠሁት መረጃ በምስጢር እነደሚቀመጥ እና ለ ሶስተኛ ወገን ተላልፎ እነደማይሰጥ አውቄአለሁ። ይህ የስምምነት ቅጽ የሚሞላው በጥናቱ ሊይ ለመሳተፍ ከተስማማሁ ብቻ ነው። በጥናቱ ላይ ለመሳተፍ ተስማምተዋል?

አዎ---------- አይሆንም----------

የጥናቱ ተሳታፊ ፊርማ----------

መረጃውን የሰበሰበው ስም እና ፊረማ ---------- ቀን --------

እናመሰግናለን!

.

## Annex VI: Interview unstructured question (Amharic version)

የቃለ መጠይቅ ተሳታፊ ስምምነት ፎርም

የጥናት ርዕሰ፡ ከ ማህፀን ካንሰር ህክምና በኋላ ያሉ የወሲብ ተሞክሮዎች እናህመምተኞች <u>የሚያደርጋቸው ማስተካከያ</u> ልማዶች (ተግዳሮቶች)

መግቢያ

እኔ ..... (ሙሉስም) እናዛሬው ይይታችንን ለማመቻቸት እሞክራለሁ. ውይይታችን በካንሰር ህክምናን ተከትሎ ስለጾታዊ ልምምድዎ በግልዎ አመለካከቶች እና ልምዶች ላይ ይሆናል. አስቀድመን እራሳችንን እናስተዋውቅ.

1 ለኅመሞ ምንአይነት ህክምና አልዎት?

ፕሮ ብሌይ ጥያቄዎች:

- ለእያንዳንዱ ህክምና ምን እንደተከሰ ተይንገሩን.

- በመጀመሪያ ሲጀምሩ ምን ነበር ፣ከዛበ በሁላስ?

- ህክምና ሲደረግዎት ምን ይሰማዎት ነበር?

- ለምን ያህል ጊዜ እንደዚህ ተሰማዎት?

- እነዚህ ስሜቶች ምን ያህል ጠንካራ ነበሩ?

- ስለሚደረገው ሕክምና ለእርሶ ገለሳ ተደረገልዎት (ስለመርጃ መሳሪ በቤትዎ አተቃቀም ) ጭምር ነው?

- በአጠቃላይ; ህክምና እንዴት ነበር ጉዳት ነበረው ? መምታከሙበት ግዝአት?

ህክምናው ከተደረገ በኋላ ወዲያውኑ? ሕክምና ከተደረገላቸው ብዙ ወራት በኋላ?

2. ከትዳር ጓደኛዎ ጋርባለዎት ግንኙነት ላይ ያለው ህክምና ውጤቶች ምን ነበሩ?

ፕሮብሌይጥያቄዎች:

- በፅታዊ ግንኙነትዎ ላይ ህክምና ያስከተው ተፅእኖ ምን ነበር?

- በህክምና ላይ እያላችሁነው? ህክምናው ከተደረገ በኋላ ወዲያውኑ?

- ሕክምና ከተደረገላቸው ብዙወራት በኋላ?

- የካንሰር ሕክምናዎች ምን ያህል ጊዜ እንደወሰዱ, የግብረ ስጋ ግንኙነትዎን መቀጠል ቻሉ?

- መረጃውን እንዴት ያገኙት አግኝተዋል, ይህም ውሳኔውን እንደገና እንዲጀምሩ ይረዳዎታል

ወሲባዊ ህይወት?

- በሽታው በራስዎ ግንዛቤ ላይ ተጽዕኖ አሳድሯል? አዎን ከሆነ, እንዴት?

- በሽታው በሰውነትዎ ላይ ተጽዕኖ አሳደረ? አዎን ከሆነ, እንዴት?

- የካንሰር ሕክምናዎች እርስዎንና የትዳር ጓደኛዎን መግባባት ላይ ተጽዕኖ ያሳድራሉ? አዎን ከሆነ, እንዴት? ጓደኛዎ ስለ ወሲባዊ ህይወትዎ ለውጦች ከእርስዎ ጋር እንዴት ግንኙነት እንዳደረጉ?

3. የሕክምናውንእና / ወይምየጎንዮሽጉዳቶችንእንዲቋቋሙየረዳዎምንድንነው?

ፕሮብሌይጥያቄዎች:

- ህክምና ሰራተኛው ረዳዎት ነገር አለ ወይም የእርስዎ አጋር, ቤተሰብ ወይም ጓደኞች ያረዱበት ነገር ነበር? የሕክምናውን ጎጂ ውጤቶች ሊቀንስ የሚችል ማንኛውንም ነገር ማሰብ ይችላሉን?

- ለወደፊቱ እንደእርስዎ ያሉ ሰዎችን ለመርዳት የማሻሻያ ምክር ለመስጠት ለሆስፒታሉ መስጠት

ያለዎት ምክር አለ?

- የሚነግሩኝ ተጨማሪ ነገሮች አሉዎት?

.

## Annex VII Socio Demographic Profiles of the Study Participants

| **Name** | Age In Year | Ethnicity | Religion | Marital Status | **Educational Level** | Occupation | Residence Place |
|---|---|---|---|---|---|---|---|
| P-1 | 57 | Oromo | Christian | married | Primary | House wife | Urban |
| P-2 | 35 | Amara | Christian | Divorced | None | House wife | Rural |
| P-3 | 46 | Amara | Christian | Divorced | Primary | House wife | Urban |
| P-4 | 50 | Oromo | Christian | Married | None | Farmer | Rural |
| P-5 | 45 | Oromo | Muslim | Married | None | Farmer | Rural |
| P-6 | 45 | Amara | Christian | Divorced | Primary | Private | Urban |
| P-7 | 60 | Amara | Christian | Married | Primary | House wife | Urban |
| P-8 | 52 | Oromo | Christian | Divorced | None | House wife | Rural |
| P-9 | 46 | Oromo | Christian | married | Primary | House wife | Rural |
| P-10 | 38 | Wolita | Christian | Married | Secondary | Private | Rural |
| P-11 | 50 | Oromo | Muslim | Married | None | House wife | Rural |
| P-12 | 40 | Amara | Christian | divorced | Primary | Private | Rural |
| P-13 | 38 | Oromo | Christian | Married | None | House wife | Rural |

…

## Annex VIII: Medical history of participants

| Participant Code | Patient age at diagnosis | Date of Diagnosis | Date Of starting treatment | Stage of cancer at diagnosis | Treatment modality |
|---|---|---|---|---|---|
| **P-1** | 44 | 06/**6/2009** | **25/2/2011** | **llB** | Radiation EBRT and Brachy |
| **P-2** | **43** | **07/4/2008** | **12/05/2009** | **IV** | Radiation EBRT+surgery |
| **P-3** | **34** | **05/02/2010** | **06/02/2010** | **II** | Radiation EBRT |
| **P-4** | **42** | **4/12/2008** | **24/8/2009** | **III** | Radiation EBRT +surgery |
| **P-5** | **33** | **25/01/2009** | **12/04/2010** | **IIB** | Radiation EBRT |
| **P-6** | **43** | **15/02/2010** | **30/1/2011** | **III** | Radiation EBRT |
| **P-7** | **37** | **29/3/2008** | **15/5/2009** | **II** | Radiation EBRT+Brachy |
| **P-8** | **45** | **18/06/2010** | **15/1/2011** | **II** | Radiation EBRT |
| **P-9** | **43** | **15/07/2009** | **22/05/2010** | **IIB** | Radiation EBRT |
| **P-10** | **48** | **17/02/2010** | **30/09/2010** | **II** | Radiation EBRT |
| **P-11** | **34** | **04/05/2010** | **02/12/2010** | **IIB** | Radiation EBRT+bracky |
| **P-12** | **56** | **26/08/2008** | **17/09/2009** | **II** | Radiation EBRT |
| **P-13** | **51** | **15/04/2009** | **09/07/2010** | **IIIA** | Radiation EBRT |

..