

**ATTITUDES, KNOWLEDGE AND PRACTICE OF WOMEN REGARDING CERVICAL
CANCER SCREENING IN NIFAS SILK LAFTO SUBCITY, ADDIS ABABA**

BY

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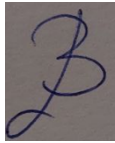
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DECLARATION

I declare that the study titled “**ATTITUDES, KNOWLEDGE AND PRACTICE OF WOMEN REGARDING CERVICAL CANCER SCREENING IN NIFAS SILK LAFTO SUBCITY, ADDIS ABABA**” is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

A square box containing a handwritten signature in blue ink, which appears to be the initials 'LB'.

Signature LB Kediri

ATTITUDES, KNOWLEDGE AND PRACTICE OF WOMEN REGARDING CERVICAL CANCER SCREENING IN NIFAS SILK LAFTO SUBCITY, ADDIS ABABA

ABSTRACT

STUDENT NO: 55778615

Background: Cervical cancer screening is less than 1% in Ethiopia. Cervical cancer is the leading cause of cancer death among Ethiopian women (Meried, 2017). The purpose of this study was to analyse the knowledge, attitude, and practice of women in the Nifas silk lafto subcity regarding cervical cancer screening. The findings of this study may contribute to future research aimed at improving existing plans and documenting health behavior.

Methods: A quantitative, cross-sectional study was conducted. A structured questionnaire was utilized to collect data. Data collection took place between July-September 2017 among (N=287) women residing in Nifas Silk Lafto subcity within Addis Ababa. Cross tabulation and the chi square test were used to analyse the data. Stratified random sampling was utilized during two different stages. The first stage of random sampling took place for the purpose of sampling the Woredas in the sub city followed by simple random sampling of women within the selected Woreda.

Results: The study showed significant correlation of age, marital status, income, and educational level of respondents with good knowledge and attitude. Respondents that had good awareness of cervical cancer screening scored between 57.1% to 71.6%. From those who understood, 14.6% of them were familiar with liquid based cytology. Chemotherapy is well-known among respondents as a treatment for cervical cancer (44.9%). Good knowledge had a stronger link to the media. Majority of respondents (79.8%) agreed that asymptomatic women should be screened. While there is a low association between attitudes and knowledge about cervical cancer screening, there is a poor correlation between attitudes and knowledge about cervical cancer screening. The age group of 30–39-year-olds has the greatest rate of pap smear visits (31.3%), while the age group of 18–29-year-olds has the lowest rate (7%). Cervical cancer screening was performed on just 14.2% of the respondents. The main reason for not being screened is

apprehension about the outcome. Fear of procedure accounted for 25.1%, while lack of service accounted for the remaining 38%.

Conclusion: According to the findings, women's age has no bearing on their attitudes or practices. Respondents with a poor educational level, on the other hand, have the lowest knowledge and practice of cervical cancer screening. The media is a key source of information on cervical cancer screening (34%). There was no significant correlation found between cervical cancer screening practices and respondents' knowledge as well as attitudes.

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Thanks to data collectors for their patience during data collection.

The authors' deepest appreciation goes to all the respondents who completed the study questionnaire.

DEDICATION

I dedicate my mini dissertation to my parents. My gratitude goes out to my mother and father. My utmost appreciation goes to my advisor, Professor P.R. Risenga.

LIST OF ABBREVIATIONS

AIDS	Acquired Immune-deficiency syndrome
ASR	Age standardized rate
CDC	Centres for disease control and prevention
ETB	Ethiopian Birr
HIV	Human immune-deficiency virus
HPV	Human papilloma virus
PAP	Papanicolaou test
SIL	Squamous intraepithelial lesion
UN	United nations
UNISA	University of South Africa
VIA	Visual inspection with acetic acid
WHO	World Health Organization

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CHAPTER ONE

ORIENTATION OF THE STUDY

1.1 INTRODUCTION

Cervical cancer is neoplasm of the cervix. The human papillomavirus causes infection in the vaginal canal, which can lead to cervical cancer. Cervical cancer is caused by sexually transmitted infections with high-risk HPV types (Arbyn, 2018). There were 528,000 new cases and 266,000 fatalities globally in 2012. Around 85% of all new cases and 87% of cervical cancer deaths occur in less developed world (Cecilia et al, 2017). Cervical cancer is more likely to lead to the death of women in eastern, western, middle, and southern Africa (Arbyn et al, 2020).

In 2018, an estimated 570,000 new cases were reported, with 90% of deaths occurring in poor and middle-income countries (Mungo, 2018). Cervical cancer accounts for around 84% of all cervical cancer cases and 88% of all deaths (Arbyn et al, 2019). Cervical cancer is the fourth most common cancer in terms of both incidence and mortality (Sharma, 2020). It is the second most frequent cancer in women worldwide, accounting for 12% of all cancers in women (Ali, 2016). East Africa (42.7%) is in the high-risk region, with an estimated ASR of > 30 per 100,000. (Cecilia, et al, 2017). More than 80% of new cases and deaths worldwide occur in developing countries, including Sub-Saharan Africa (Gebru et al, 2016). Cervical cancer screening has only been done in about 5% of women in Sub-Saharan Africa (Anwar, 2018).

Cervical cancer is the leading cause of death for women worldwide, with 270,000 women dying each year, 85% of whom live in developing nations (Malhotra: 2020). In Ethiopia, the age-adjusted incidence rate of cervical cancer is 35.9 per 100,000. The annual number of new cases and deaths among women is 7619 and 6081, respectively (Misgina et al, 2017). Cervical cancer can be avoided (Adhikari, 2021). Cervical cancer is the most common cancer in developing countries, accounting for 80% of all cases and 5% of all cancer treatments. Cervical cancer incidence equals death due to health-care inequalities (Fiander, 2011). Cervical cancer can be cured if caught early enough. Early detection of precancerous lesion is helpful in early treatment and better prognosis. Even in late-stage

cancer, patients' suffering can be reduced, and family support can be provided (Ntekim, 2012). As a result, public health emphasizes disease prevention and early identification, as well as treatment and palliative care.

Cervical cancer precursor lesions are premalignant lesions on the cervix. Low grade squamous intraepithelial lesion (Low SIL), high grade squamous intraepithelial lesion (high SIL), and carcinoma in situ are all included. The method of identification is visual inspection. Papanicolaou stain (PAP), liquid based cytology, and visual inspection with acetic acid are all used to screen for precursor lesions. Cervical cancer screening looks for abnormal cells in the cervix, such as precancerous lesions and different stages of cervical cancer (Getachew et al, 2019). The majority of them are asymptomatic. Cervical cancer is diagnosed in women who have had several sexual partners or who have had early sexual interaction with a partner who is at risk. Individual knowledge, disease perception, availability, and accessibility of health services are all factors that influence health seeking behavior at the individual and community levels (Habtu, 2018).

Due to a lack of information about cervical cancer and prevention services, approximately 80% of cervical cancer cases in Sub-Saharan Africa are late stage and have a low survival rate after treatment (Assefa, 2019). The exact number of cases and deaths from cervical cancer is unknown. Women with cervical cancer were marginalized in society and received little emotional support (Kabalimu et al, 2018). Adequate data is not available over health seeking behaviour, on controls and prevention of cervical cancer at national level (Habtu, 2018). Cervical cancer strikes Ethiopia's most vulnerable women, including the impoverished, rural, and HIV-positive (Assefa, 2019). This is due to a lack of national investment in the development of cervical cancer screening and educated experts (Kassa et al, 2017). In Ethiopia, cervical cancer prevention requires few visits with screen and treat protocol which is going to be effective (Kassa et al, 2017).

Regular cervical cancer screening prevents development of invasive cervical cancer, mortality, and morbidity. Cervical cytology has shown to decrease cervical cancer incidence by 80% (Aggarwal, 2014). Routine cervical cancer screening has been shown to reduce the incidence and mortality of the disease (Getachew et al, 2019). The majority of cervical cancer cases (up to 90%) may be avoided if all women were provided and followed through with high-quality cytological screening programs (Healthy people 2000:

1990). Cervical cancer deaths can be reduced by 80% if 100% compliance with pap screening is achieved (Koong, 2006).

Cervical cancer screening with cytology every three years is recommended by the American Preventive Services Task Force for women aged 21 to 65 years (Moyer, 2012). Despite the fact that cervical cancer is the most frequent cancer among women in developing countries, only around 5% of women have been checked for cervical dysplasia, compared to 40%–50% in developed countries (Almobarak, 2016). The low uptake of cervical cancer screening could be due to a lack of communication between healthcare providers and patients about the test's availability and advantages. Women's understanding of cervical cancer is quite low in many developing countries. According to studies, just 6% to 27% of women in Sub-Saharan Africa have had cervical cancer screening (Ndejjo, 2016).

Cervical cancer affected 12,990 women in the United States in 2016, resulting in 4100 deaths. According to studies, 50% of women diagnosed had never been checked, while 10% have been screened in the last 5 years (Wuerthner, 2016). Cervical cancer screening lowers mortality and improves quality of life by avoiding the development of cervical cancer. In Ethiopia, there are 7619 new cases and 6081 deaths each year. The incidence rate is highest between the ages of 40 and 49 years (Abate, 2015). Based on the current data, the American cancer society, the American society of colposcopy and cervical pathology, and the American society of clinical pathology collaborated in 2012 to produce practical guidelines for cervical cancer screening. In 2016, the American College of Obstetricians and Gynaecologists released a similar guideline.

Screening is recommended every 5 years if an individual obtains a negative result for contesting. If an individual has had three negative cytology results or two consecutive co testing results in the previous ten years with the most recent one done within the last five years; the American College of Gynaecologists and Obstetricians recommends that cervical cancer screening be stopped at age 65 (Kamal et al, 2021). Women whose immune system is compromised, those who have been exposed to diethylstilboestrol in utero, and those who have had a history of moderate or severe cervical dysplasia should have their test done once a year (Wuethner, 2016). Cervical cancer is estimated to account for 6.6% of all female cancers worldwide in 2018 (Kamal et al, 2021).

Cervical cancer screening is accessible at Ethiopian health centres. Every 5 years, all women aged 30-49 years are eligible for VIA (National Cancer Control Plan: 2016-2020). It strives for an 80% coverage rate. However, among Ethiopian women, awareness of the screening service is limited. In Ethiopia, less than 1% of women get screened for cervical cancer (Meried et al, 2020).

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

Cervical cancer is estimated to account for 6.6% of all female cancers worldwide in 2018 (Jothula, 2020). In Ethiopia, women's health-seeking behavior is poor. The development of cancer and poor screening levels can be attributed to a lack of education, a lack of awareness of one's own status, and cultural barriers. Patients also seek help from traditional healers in the rural area. Palliative care is the only option when it comes to healthcare (Getahun et al, 2013).

The lack of awareness about cervical cancer screening procedures, disease presentation, and preventative methods are the points of entry. The exact number of cases and deaths from cervical cancer is unknown. Lack of knowledge, high costs, restricted access to screening programs, and the absence of a national cancer registry are all contributing factors (Ethiopian cancer association, 2015). Poor, rural, and HIV-positive women are more likely to get cervical cancer. This is due to a lack of national investment in the development of screening technology and qualified personnel (Ethiopian cancer association, 2015). Early diagnosis, according to Medscape (2014), increases the chances of survival and lowers treatment costs. Cervical cancer screening studies have not been conducted in the Nifas silk lafto subcity. The purpose of the study is to identify why there is a gap between cervical cancer screening and diagnosis.

1.3 STATEMENT OF THE RESEARCH

Around 35% per 100000 women die in Ethiopia due to cervical cancer. Cervical cancer screening utilization is limited in Ethiopia. In a few studies, utilization of cervical cancer screening results ranged from 4.8% to 19.8% (Kasim, et al, 2020). Cervical cancer is the leading cause of cancer deaths in African women (Sengayi-Muchengeti, 2020). Ethiopia has a population of 29.43 million women aged 15 years and older. A total of 7095 new cervical cancer cases are diagnosed each year, with 4732 deaths occurring from the

disease (Deresse et al, 2018). It is difficult to evaluate the incidence and rate of cervical cancer among women in Addis Ababa due to the lack of a national cancer registry. According to a study conducted at Tikur Anbessa hospital in Addis Ababa, the peak incidence occurs in women aged 40 to 49 years.

To slow the spread of cervical cancer, more HPV vaccinations, screening programs, and community education on self-awareness are needed (Abate, 2015). Since 2014, the Ministry of Health has been conducting national cervical cancer screenings. Since January 2016, Addis Ababa and its nine sub cities have officially introduced the service at each sub city and Woreda level health centres. Nifas Silk Lafto sub city has 6 months of data available.

Until 2016, the Nifas silk lafto sub city health office did not have a registry for women who had cervical cancer or died as a result of sickness. Since January 2016, screening data has been available at the health office. From January to June 2016, the sub city had 136,899 women aged 18 to 49 years; however, only 290 cervical cancer screening visits were registered at health facilities inside the sub city. The data for the 290 women comes from the subcity registry (Nifas silk lafto health office registration, 2016), which covers the months of January to June 2016. In January 2016, 36 women were screened. A total of 65 women were examined in February 2016, 45 in March 2016, 60 in April 2016, 32 in May 2016, and 52 in June 2016. The service is provided at one of the nine woreda health centres that are fully staffed.

Despite the high prevalence of the condition at a national level, the number of women who attend health clinics for screening is quite low. There is a lack of knowledge about diseases and screening methods, as well as a shortage of health clinics that provide the service.

1.3.1 Research purpose

The purpose of the study is to investigate the attitudes, knowledge, and practices of women between 18-49 years of age on cervical cancer screening.

1.4 RESEARCH OBJECTIVES

Objectives of the study were to:

- Explore and describe the attitudes, knowledge, and practices of women between 18-49 years of age on cervical cancer screening
- Develop recommendations that will increase the use of cervical cancer screening in Nifas Silk lafto subcity and to be projected to national level

1.5 SIGNIFICANCE OF THE STUDY

The study will benefit women because it may raise their awareness and knowledge of cervical cancer screening and reduces cervical cancer-related illness. There will be a reduction in advanced cervical cancer and mortality, as well as an improvement in women's quality of life. The purpose of the research is to raise awareness about the need of cervical cancer screening and to prevent subsequent complications. Cervical cancer can be detected early. It depicts how women's awareness and attitudes toward cervical cancer screening differ depending on their social, educational, and cultural status. This is a first step in raising awareness among women in the sub city and at the health office and demonstrates the state's difficulties in reducing the number of cervical cancer cases.

1.6 DEFINITION OF TERMS

1.6.1 Cervical cancer

It's a type of cancer that starts in the cervix (lower uterus), (Devita , 2011). In this study, cervical cancer will be defined as cancer of the cervix that develops from premalignant lesions. Women in the Nifas Silk Lafto Sub city who have a premalignant lesion may have no symptoms or may have vaginal haemorrhage, vaginal discharge, dyspareunia, or mass per vaginal.

1.6.2 Cervical cancer screening

It is the diagnosis and removal of abnormal tissue or cells in the cervix prior to the development of cervical cancer. Its goal is to prevent cervical cancer (Wikipedia, 2016). Cervical cancer screening is considered in the study as a method of detecting premalignant lesions on the cervix in order to prevent cervical cancer in women aged 18

to 49 years in the Nifas Silk Sub district. Methods of detection include pap smear cytology, liquid based cytology, the HPV DNA test, and ocular inspection with acetic acid. All of this is available in the Nifas Silk Subcity. The women will be able to use these approaches to continue their follow-up or seek treatment.

1.6.3 Attitude

It is a favorable or unfavorable expression towards a person, place, item, or event, or a way of behaving that is influenced by those circumstances (Cambridge English dictionary, 2016). In this study, attitude refers to women's attitudes concerning cervical cancer and screening procedures. This refers to their socioeconomic status, education levels, and economic hierarchy within the sub city.

1.6.4 Knowledge

It refers to familiarity, awareness, or understanding of someone or a certain aspect. This comprises facts, information, descriptions, or abilities gained through experience or study as a result of observing, finding, or learning (Wikipedia, 2016). The study focuses on women's perceptions about cervical cancer and screening procedures as well as the resources available in their health centres in relation to their social status, educational level (primary, secondary, or higher education level), and economic status in the Nifas Silk Lafto Sub city.

1.6.5 Practice

Practice (n.d.), according to the Cambridge English dictionary which was retrieved from dictionary.cambridge.org/dictionary/practice, describes what really occurs rather than what we expect to occur in a given scenario. (n.d.) (Practice). The study focuses on how women between the ages of 18 and 49 go about seeking and undergoing cervical cancer screening. Then, if necessary, a follow-up examination and treatment in Addis Ababa's Nifas Silk Lafto Sub City is administered.

1.7 THEORETICAL FOUNDATION OF THE STUDY

Assumptions are fundamental beliefs that are held to be true but have not been proven (Brink, Van Der Walt, and Van Rensburg, 2012). People should be able to care for themselves. Cervical cancer screening should be made available to women in order to reduce cervical cancer mortality and poor quality of life. Women who are well-informed will share their expertise with others.

1.7.1 Theory of Self-Care

Individually made mental models regarding a disease, such as beliefs and perceptions of risk and illness, have a bigger impact on self-care. Self-care is defined as an action taken by an individual to maintain his or her own health, life, and well-being. Individuals have an active part and responsibility for their own health (Castro et al, 2015).

Self-care is defined as an individual's action to preserve and improve one's health and well-being. The ability of an individual to participate in self-care is referred to as self-care agency. It is influenced by a number of factors: age, gender, development, state of health, family system, living patterns, environmental and social factors, as well as the availability and sufficiency of essential resources (Ali, 2018). In this study, self-care is defined as women's screening habits for cervical cancer. Precancerous lesions can be discovered early by undergoing such procedures. They can help to avoid advanced cervical cancer and its associated loss of quality of life. Self-care deficit is a condition that necessitates nursing care. This occurs when an individual's productive self-care is limited. A nursing agency is a complicated organization that consists of well-trained and educated nurses that will support individuals in developing their own self-care agency by teaching, recognizing, and assisting them in meeting their therapeutic self-care demands.

Orem's self-care theory has multiple requisites. There are four types of treatments: universal, developmental, health deviation, and therapeutics. Orem provides guidance on concepts and correlations of elements using a self-care model. Self-care agency and self-care demand are linked in this approach. Even if there is a strong need for nursing agencies or nursing systems, if there is a weak self-care agency, individual self-care demand will be higher (Ali, 2018). People should be able to care for themselves. Cervical

cancer screening should be made available to women in order to prevent cervical cancer diagnosis, mortality, and a poor quality of life. Women who are well-informed will share their expertise with others.

1.7.2 Self-care agency

Humans have developed the talents and powers to engage in self-care. Self-care agency, according to Orem's self-care deficit nursing theory, is a concept for assessing one's ability to practice self-care in order to accomplish a desired goal-oriented outcome. Age, social background, environmental factors, living patterns, and resource adequacy all influence self-care. Cervical cancer screening should be well-understood by women in order to reduce cervical cancer morbidity and mortality (Ali, 2018). If cervical cancer is not detected early, women are at risk of developing it. Cervical cancer screening should be well-understood by women, and they should communicate this information with one another. They require the help of their partners, husbands, families, and society as a whole.

1.7.3 Therapeutic self-care demand

The action sequences or care measures taken as part of therapeutic self-care are referred to as therapeutic self-care demand (Rayford, 2016). It is based on deliberate activity taken by some members of society with the intent of benefiting themselves or others. According to the study, cervical cancer screening should be available to women in both private and public health facilities. A health care professional should teach patients about the importance of cervical cancer screening in preventing the complications that come with advanced cervical cancer.

1.7.4 Assumptions

- People should be self-reliant and responsible for their own care and others in their family who need care (Younas, 2017). Women in the study should be aware of cervical cancer screening in order to improve their quality of life and prevent cervical cancer-related death. Women who are educated will share information with one another.

- People are distinct individuals (Younas, 2017). In this study, women lack knowledge of cervical cancer screening, and they are the vulnerable group in cervical cancer.
- Meeting the universal and development components of primary care preventive and ill health successfully (Younas, 2017). According to the findings, women should be well-versed in the prevention of cervical cancer through cervical cancer screening. Primary care prevention includes health education as well as cervical cancer screening for all women over the age of 21.
- A person's knowledge of health problems is necessary for promoting self-care behaviours. In the study, women should be given information, probably starting from primary schools where most of young people are not yet sexually active. This can equip them in how and when to start on cervical cancer screening.

1.8 RESEARCH METHODOLOGY

The study used quantitative design to assess attitude, knowledge and practice of women aged 18-49 years regarding cervical cancer screening. Quantitative design is the empirical investigation of observable phenomena through statistics with the goal of developing or employing mathematical theories through the measuring process. Quantitative data is any numerical data that is analyzed using statistics by the researcher. Quantitative research examines the relationship between variables in order to test objective ideas (Polit and Beck, 2012). The third chapter of this study contains detailed information on the design and methods.

1.9 ETHICAL CONSIDERATION

The investigator obtained approval to conduct research project from university of South Africa, department of health studies. The application was sent to the regional health office, along with ethical approval from the University of South Africa. The regional health office in Addis Ababa granted institutional consent. The final report of this study's output was distributed to study participants.

1.10 STRUCTURE OF DISSERTATION

Thesis is divided into following chapters:

Chapter 1: Orientation of the study

Chapter 2: Literature review of the study

Chapter 3: Research design and method

Chapter 4: Presentation of the results

Chapter 5: Discussion of the study results

Chapter 6: Conclusion, recommendations and limitations

1.11 CONCLUSION

This chapter gave an orientation to the study. The chapter constitutes of the introduction to the study, background information for the research problem, research purpose, research objectives, significance of the study, definition of key terms, research design and method. The next chapter reviewed literatures relevant to the study topic.

The literature review focused on cervical cancer screening, its importance, awareness of women about cervical cancer screening, knowledge about cervical cancer screening, and factors related to communication about cervical cancer screening.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Literature is a manuscript written by someone to reflect significant points of recent understanding as well as theoretical and procedural contributions to a study (Burn and Grove, 2012). It contains current information on the subject, as well as a summary of the best accessible research from previously published studies on specific topics (Baker, 2016).

The researcher used a variety of resources, including printed literature, electronic media, and various internet resource engines. All relevant literatures were sorted according to their relevance to the current study. These figures were utilized as evidence in the research. Chapters were divided into these headings namely: Cervical cancer screening and types, importance of cervical cancer screening, cervical cancer and screening, awareness of women on cervical cancer screening, knowledge of cervical cancer screening, accessibility of cervical cancer screening and factors related to communication about cervical cancer screening.

2.2 CERVICAL CANCER SCREENING AND TYPES

Cervical cancer is the second most common cancer among adult women. There is estimated 528000 new diagnosed women of which 266000 die each year. Low- and middle-income countries account for the 85% new cases and 87% deaths of women. Women with HIV are at higher risk to develop cervical cancer and prone for rapid progression (Finocchiaro-Kessler et al, 2016).

Cervical cancer is a condition that can be avoided if caught early. The World Health Organization promotes cervical cancer prevention and identifies intervention possibilities. There are various preventative methods. The first line of defence against cervical cancer is a two-dose vaccination program for both girls and boys aged 9 to 14 years. Secondary prevention involves detecting and treating pre-cancerous cervical lesions through screening and treatment. Tertiary prevention is the treatment of cervical cancer to reduce

morbidity and mortality as well as increase quality of life in post-treatment care for women in African countries who do not have access to treatment (Finocchiaro-Kessler et al, 2016).

Early screening for diagnosis and treatment of pre-cancerous lesion prevents up to 80% cervical cancer; however, this occurs when cervical cancer screening is regular practice in high resource countries (Finocchiaro-Kessler et al, 2016).

Cervical cancer prevention includes three types of pre-cancerous lesion and treatment screening methods. Cytology, visual inspection, and HPV testing are the three methods. Cells are scraped from the squamous columnar junction of the cervix and examined after being fixed by a competent cytologist. There is a significant logistical and program barrier in cytologic evaluation and notification of women's results (Sreedevi, et al, 2015).

Visual screening is the other type of screening. It is inexpensive, simple to learn, and requires little equipment. The major goal is to find an intracellular protein with a higher concentration of aceto whitening effect. Sensitivity and specificity of detecting CIN 2, CIN 3 and invasive cervical cancer was 49-96% and 49-98% respectively (Sreedevi et al, 2015). In India, Kenya, and South Africa, cervical cancer screening programs indicated that a single screening at age 35, followed by one or two visits for screening and treatment with VIA, reduced lifetime risk by 25-36% (Sreedevi et al, 2015).

The other type of screening method is HPV DNA detection, which has a sensitivity of 45.7-80.9% for detecting cervical intra epithelial neoplasia grade two and above. HPV testing is costly and requires more laboratory infrastructure, but it is the most reproducible (Sreedevi et al, 2015).

The oldest and most widely used cancer screening approach is cytology screening (Pap test) for cervical cancer in organized screening programs. In many developed countries, this method has lowered the incidence and mortality of cervical cancer. In the developed world, this is one of the most successful illness prevention strategies; however, this technique has failed in low-income countries. A cytology-based screening program necessitates the involvement of a cytopathologist and a colposcopy specialist, as well as

multiple visits from women to determine whether or not they require treatment (Catrino et al, 2015).

Pap smear screening is a highly specific but only moderately sensitive diagnostic for high-grade lesions. The term “high specificity” refers to cytology’s ability to appropriately identify women who do not have a high-grade lesion. Moderate sensitivity means that cytology detects a high percentage of women who have cancer or a high-grade lesion (Catrino et al, 2015). According to the above statements, implementing high-quality cytology programs in low-income countries is relatively effective. With a single screening, the current pap test misses almost half of all high-grade precursor lesions and cancers. Women in low-income countries are likely to get screened only once or twice during their lifetime (Catrino et al, 2015).

The World Health Organization has approved the use of visual inspection with acetic acid (VIA) or visual inspection with Lugol’s iodine for cervical cancer screening in low-resource settings (VILI). Pre-cancerous and cancerous lesions appear white when acetic acid or Lugol’s iodine is applied directly to the cervix, making them visible to the naked eye. This method is highly sensitive in both HIV-positive and HIV-negative women. This method employs the “screen and treat” strategy. Since the results are immediate, women who test positive for precancerous lesions might theoretically be treated with cryotherapy at the same visit, assuming the health facility has the capacity. This strategy has shown to be cost-effective, affordable, and an ideal first-line treatment for CIN of any grade if the cervical lesion size and location allows the cryo probe tip to make adequate contact (Finocchiaro-Kessler et al, 2016).

The ‘screen and treat’ technique can help avoid inconvenient follow-up visits, significant treatment delays, and missed appointments (Finocchiaro-Kessler et al, 2016). Visual inspection (VIA) involves applying freshly prepared 4% acetic acid with a cotton swab and looking for a well-defined opaque aceto white lesion next to or around the squamous columnar junction for one minute (SCJ), (Saleh, 2006). Numerous studies have evaluated VIA. Pooled data meta-analysis of 26 studies conducted in high- and low-income countries discovered that the VIA method has a sensitivity of 80% and a specificity of 92%. Even if sensitivity differed significantly between studies (Sauvaget et al, 2011), another metanalysis that combined data from 11 studies conducted in Africa and India

found that VIA had a sensitivity of 79% and a specificity of 85% for CIN 2 lesions or worse (CIN2+). VILI appears to increase VIA's sensitivity by 10%, without affecting the specificity (Arbyn et al, 2008).

VIA has a low specificity of 85% and is unable to detect endo cervical lesions. VIA is simple, low-cost, and results are available in real time. Women who have had a hysterectomy that was not performed to treat a precancerous lesion or cancer must be screened (Arbyn et al, 2008). To reduce the burden of cervical cancer, low-cost alternative screening methods are being implemented in low- and middle-income countries. Visual inspection with acetic acid (VIA) and visual inspection with Lugol's iodine are two methods of visual inspection (VILI). VILI uses dilute lugols iodine to stain glycogen-rich squamous epithelium while leaving glycogen-depleted proliferating pre-cancerous and cancerous cells unstained (Grant, 2019).

Cervical cytology, on the other hand, is not a viable way of screening in many African countries due to a lack of medical, laboratory, and trained workers, as well as the inability of a poor patient to return numerous times. In Sub-Saharan Africa, the number of women who have had a pelvic exam and pap test in the past three years is extremely low (1.0% in Ethiopia to 23.2% in South Africa), with 40% of Tunisian women and 94% of women in Malawi who have never had a pelvic exam (Gakidou, 2008). In low-income countries, patient tracking strategies and services are frequently limited to capital cities (Gakidou, 2008). As a result, the utilization of less resources and the availability of quick results, such as visual inspection with acetic acid or HPV DNA testing, are recommended. Due to financial and technical constraints, low-income countries prefer VIA with 3 to 5% acetic acid as a satisfactory screening method (Gakidou, 2008).

2.3 IMPORTANCE OF CERVICAL SCREENING

Cervical cancer screening is a secondary prevention approach that allows for early detection of the disease. World health organization identifies cervical cancer as one of the most important health care concerns of the 21st century. Cervical cancer in women of reproductive age is reduced by routine screening (Kessler, 2017).

Cervical cancer is the most common cancer in women, accounting for 4732 deaths each year. Cervical cancer screening helps women avoid death and a poor quality of life.

Cervical cancer screening is crucial, yet it is neither widely available nor widely used (Dulla et al, 2017). Cervical cancer kills half of the people who are diagnosed with it. In low-income countries, it is a major public health issue that reduces life quality and causes death. Women can use screening methods to detect precancerous lesions and receive appropriate treatment before cancer develops (Terefe and Gaym et al, 2018).

Women who are not screened are at risk of developing cervical cancer and dying as a result of the disease. Other health concerns have obscured the lack of screening (Terfe and Gaym et al, 2018). Cervical cancer screening can reduce mortality in women by 40 to 50% in the Western world and 4 to 5% in low-income countries (Cuzick et al, 2006).

2.4 CERVICAL CANCER AND SCREENING

Cervical cancer has decreased in the United States as a result of widespread cervical cancer screening, with death rates falling from 2.8 to 2.3 per 100,000 women from 2000 to 2015. In 2018, there are expected to be 13240 new cases and 4170 deaths. The majority of cervical cancer cases and deaths occur in women who were not properly checked, followed up on, or treated for the disease (Curry, 2018).

There is a significant geographic disparity in cervical cancer incidence, which is due to differences in screening availability. The prevalence of HPV infection ranges widely, from the highest to the lowest: Africa accounts for 21% of infection, Latin America, and the Caribbean for 16%, Asia for 9%, and North America for 5% (Torre, 2015).

The majority of cervical cancer deaths occur in developing countries, accounting for 90% of all deaths: 144400 in Asia, 60100 in Africa, and 28600 in Latin America and the Caribbean (Torre, 2015). Almost all cervical cancers are caused by certain forms of the human papillomavirus. Shortly after sexual intercourse begins, high-risk HPV infections increase. According to HPV molecular tests, cervical cancer can be caused by high-risk HPV strains (Kessler, 2017).

When it comes to the possibilities of surviving cervical cancer, a woman in Thailand has a 58% probability of surviving, whereas she only has a 42% chance in India. In addition, survival is even more critical in Sub-Saharan Africa, where women only have a

21% chance of surviving cervical cancer. Overall mortality to incidence ratio is 52% (Catarino, 2015).

Cervical cancer patients experience negative psychological and physical morbidities, which have an influence on the quality of life. African countries continuously have a higher age-adjusted daily adjusted life year (DALY) loss from cancer than high-resource countries. In Sub-Saharan Africa, the estimated DALY lost due to cervical cancer is 641 years per 100,000 women (Finocchiaro-Kessler et al, 2016).

When a lesion is inoperable and treated with radiotherapy, the patient's quality of life worsens. The majority of people say their physical, emotional, social, and financial support has worsened. Bladder or bowel malfunction, as well as psychosocial effects, cause long-term impairment. Extended vaginal bleeding and chronic radiation enteritis are two common treatment-related adverse effects (Finocchiaro-Kessler, 2016).

In a paternalistic country like South Africa, women must ask permission to get medical help. Which can be linked to women's disempowerment and inadequate screening practices. (Maree et al., 2013). While data for low-resource settings is limited, literature reviews from high-resource countries show changes in body image, vaginal function, sexual satisfaction, and sexual relationship with partner following treatment, indicating a clear need for better integration of sexuality rehabilitation into routine clinical care (Finocchiaro-Kessler et al, 2016).

2.5 AWARENESS OF CERVICAL CANCER SCREENING

Cervical cancer awareness and knowledge in Africa is yet to be recognized as a major public health issue in Sub-Saharan Africa. Several studies have revealed that Africans have poor understanding of the condition, which cuts across literacy levels. In Africa, health care workers, in addition to patients, do not have thorough understanding of cervical cancer (Haque et al, 2020).

Only 4.3% of 500 people who attended a maternity and child health clinic in Lagos, Nigeria, were aware of cervical cancer. In Lagos, 81.7% of 139 patients with advanced cervical cancer had never heard of the disease before, and 20%, 30%, and 10% of them

thought their symptoms were caused by return of menses, lower genital infection, and irregular menses, respectively (Ntekim, 2012). Almost all of the women (98%) thought their advanced sickness was treatable, whereas only 12% thought it was not a serious disease and only 9% realized it was cancer and thus serious. According to similar research, patients in Kenya and Tanzania had relatively little understanding of the condition (Ntekim, 2012).

Clients and health-care workers must be made aware of the situation. According to a study conducted in the Southern Ethiopia region, 77% of health workers in Ethiopia are aware of cervical cancer screening (Dulla et al, 2017).

Community groups could help raise awareness among women who have passed their reproductive years by linking screening to significant events in their lives (becoming a grandmother or with contraceptive sterilization). Furthermore, high-quality care should be provided because if women fear they would be treated badly if they go to a preventative care service, they will not go (Sherris & Herdman, 2001).

2.6 KNOWLEDGE OF CERVICAL CANCER SCREENING

Patients aren't the only ones with poor understanding; health care workers, who are expected to be more knowledgeable, also have poor awareness about the disease. Women presenting with late-stage disease in Lagos were shown to be a result of delays in referring instances of cervical cancer by primary health care providers. Primary health care providers waited an average of 9.35 12.9 months to diagnose and refer women with cervical cancer to a tertiary institution for treatment (Anorlu, 2007). Another study in Sub-Saharan Africa found that market women in Zaria, Nigeria have low knowledge of cervical cancer screening (43%), (Ahmed, 2013).

Cervical cancer affects 445000 women in low- and middle-income countries, compared to 83000 in developed countries. The main cause of the disparity is the use of cytology-based screening (Mezei, 2017). According to studies conducted in various regions of Ethiopia, limited understanding is associated with a low use of screening methods. According to research conducted in Arbaminch, 38.9% of respondents were checked. The low use of screening services was attributable to the fact that an individual was in

good health (60.02%). Increased service intake was linked to having more than 5 children and having a monthly income of more than 1170 birr (Gebru et al, 2016).

According to a study conducted in Dessei, north-eastern Ethiopia, 46.3% of the population has low comprehensive knowledge, and 9.9% has been screened for cervical cancer (Aweke, 2017). In Dessei town, 51% of women had enough awareness of cervical cancer screening, which is linked to higher education. Women with an average monthly household income of >1500 Ethiopian birr are more likely to have sufficient knowledge than women with an average monthly household income of 500 Ethiopian birr. The level of education and economic status were discovered to be key factors of cervical cancer knowledge (Mitiku et al, 2016). There is a lack of knowledge and attitude, and the screening service is poorly utilized. In Gonder's southwest, 53% had heard about cervical cancer, 33.9% of the survey participants had insufficient knowledge, but 61% had a favourable attitude towards cervical cancer screening (Mitiku et al, 2016).

2.7 ACCESSIBILITY OF CERVICAL CANCER SCREENING

The African Cancer Registry Network (AFCRN), which was founded in 2012, currently supports 25 cancer registries in 19 member countries across Sub-Saharan Africa, many of which still lack defined cancer prevention and control programs. Residents in more rural areas are greatly hampered by the geographic dispersion of cancer treatment centres with cytology laboratories, radiotherapy, and chemotherapy infrastructure (Finocchiaro-Kessler et al, 2016). Low-income countries account for over 80% of cervical cancer cases. Cervical cancer is responsible for an estimated 311000 fatalities worldwide, with more than 85% of these deaths occurring in low- and middle-income countries (Wardak, 2016).

Cervical cancer incidence and mortality are disproportionately high in low- and middle-income countries. There are barriers for adoption and implementation of services. These obstacles make it difficult to organize prevention, screening services delivery in the current infrastructure, access to screening facilities, follow-up management, and appropriate linkage for confirmed diagnosis and treatment (Pimple, 2019). Cervical cancer screening was performed on less than a quarter of women in Tanzania's rural

districts. The distance to a facility that offers cervical cancer screening was linked to screening uptake (Lymo et al, 2012).

According to a 2009 situational study, only 4% of facilities in east, central, and southern Africa had equipment to execute outpatient treatment modalities like cryosurgery. This demand for scarce services typically results in long waiting periods (median of 3.8 months in Ethiopia for treatment). The costs of future hospital visits, pathology reports, and therapy are out of reach for the vast majority of women in these situations. According to a recent study, a \$59 million infrastructure investment would be required to equip every cervical cancer screening facility in 23 high-incidence Sub-Saharan African countries with cryotherapy technology in order to use the recommended screen and treat approach (Finocchario-Kessler, 2016).

According to a population-based survey conducted in 57 countries in 2008, 19% of women in developing countries had their cervical cancer screened in the previous three years. Despite the physical and budget constraints, cervical cancer awareness among reproductive-aged women remains low. In addition, inconvenience (having to travel a long distance for an appointment), expense of service, perceived low quality of service, and fear of humiliation about seeking assistance all impede service uptake (Finechario-Kessler, 2016). One out of every four women over the age of 18 was screened in a health care facility. When compared to medical practitioners, the likelihood of screening reduced by 87% when women were visited by a nurse or midwife. When compared to the availability of physicians, cost difficulties or affordability, patient level variables accessibility, and accommodation factors are less relevant predicting factors (Akinyemiju & McDonald et al, 2015). Any screening program must first improve women's access to health care. Women in a large number of countries have never undergone a pelvic examination. Malawi, Ethiopia, and Bangladesh have the highest rates, at approximately 90%. The rate for crude and effective coverage begins to drop for women aged 45 years and up in underdeveloped countries, and 55 years and up in affluent countries. The age group in which effective coverage is declining corresponds to the age range in which cervical cancer incidence and mortality are high or rising (Gakidou & Nordhagenet et al, 2008).

Visual inspection and rapid ablation therapy are recommended in resource-poor countries. Since such a procedure has a straightforward technique, it has a low complication rate and is less expensive. If access to colposcopy and histopathology is problematic, who advocates visual inspection with acetic acid test and ablation therapy for women with positive results? (Basu, 2018). Cervical cancer screening is important, but it is not widely available or used (Kress et al: 2015). Access, uptake, quality of screening tests, adequacy of follow-up, diagnosis, and treatment of precancerous and cancerous lesions discovered are all important factors in the success of a cervical cancer screening program (Mukama and Ndejjo, 2017). Other health issues (AIDS, tuberculosis, and malaria, 2017) have eclipsed the lack of screening (Terefe and Gaym et al, 2018). Lack of training and resources were reported as impediments to screening among female health professionals in southern Ethiopia, with 52% citing a lack of training and 53% citing a lack of resources (Dulla 2017).

In order to screen in low- and middle-income countries, the program must assure broad coverage of the target population, as well as screening, management, and adequate patient follow-up. Management should be available on-site and at a reasonable cost, with the bare minimum of infrastructure. Training and continual education are required to ensure the success of a screening program (Catrino et al, 2015).

2.8 FACTORS RELATED TO COMMUNICATION ABOUT CERVICAL CANCER SCREENING

Cervical cancer is a condition that can be avoided and treated. It can be prevented through vaccination and screening, and it can be treated if caught early enough. It is progressively becoming a rare disease in many developed countries (Anorlu et al, 2008).

Many countries in Sub-Saharan Africa do not share this view. Cervical cancer is the most frequent cancer among women in Sub-Saharan Africa, trailing only breast cancer in Northern Africa. It is the most prevalent cause of cancer death among women in Sub-Saharan Africa, accounting for 22.2% of all cancers in women. In Sub-Saharan Africa, 60–75% of women diagnosed with cervical cancer reside in rural areas, and death is extremely high (Anorlu, et al, 2008).

Many women with cervical cancer go untreated, owing to a lack of access to health care (both financially and geographically). Cervical cancer claims the lives of more women in Sub-Saharan Africa than any other cancer. Unfortunately, illness strikes them at a moment in their lives when they are most important to their families' social and economic security (Anorlu, 2008).

Women of low socio-economic status have a greater risk of cervical cancer. Cervical cancer is often referred to as a disease of poverty and of poor women. In Sub-Saharan Africa, poverty is endemic. A recent study in Mali, West Africa, showed that within a population widely infected with HPV, poor social conditions, high parity and poor hygienic conditions were the main co-factors for cervical cancer. Poverty, in all of its forms, is a major impediment to the prevention and treatment of this disease (Anorlu, et al, 2008).

The association between HIV and HPV has been proven in several studies. In HIV-positive women, the prevalence of CIN has been estimated to be as high as 20–40%. HIV-positive women are more likely than HIV-negative women to develop chronic HPV infections. HIV-positive women exhibited a significantly greater prevalence of squamous intraepithelial lesion (SIL) for both low-grade and high-grade SIL in a sample of 2,198 women who attended gynaecological clinics in Abidjan, Côte d'Ivoire. A study of 513 HIV-positive women in a Kenyan family planning clinic found a five-fold increased risk of high-grade SIL (Anorlu et al, 2008).

A cross-sectional descriptive study in three teaching hospitals in Addis Ababa found that 81.2% of the population had never heard of pap screening, while only 65% of the younger population had heard of it. In addition, 72.2% percent of individuals who took the exam did so after consulting with a doctor or nurse, while 20.7% did it on their own initiative (Terefe and Gaym et al, 2018). In addition, a research in eastern Uganda found that 88.2% of people had heard of cervical cancer from the media, 70% from radio, and 15.1% from a health facility (Mukamu & Ndejjo, 2017).

2.9 CONCLUSION

The chapter covered literature review on the research topic and discussed the incidence of cervical cancer, importance of cervical cancer screening, outcome of cervical cancer

and types of cervical cancer screening, awareness of cervical cancer screening, knowledge about cervical cancer screening, and access regarding cervical cancer screening, and source of information about cervical cancer screening.

The next chapter explains the research design, research methods, data management, and ethical considerations undertaken during the study.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 INTRODUCTION

This chapter explains the research design, research methods, management of data, and ethical values considered in the study. This chapter provides a brief overview and organisation of the dissertation. The results of a process followed in this study on the attitudes, knowledge, and practices of women aged 18 to 49 years on cervical cancer screening were detailed here. The study's objectives, research questions, overall research design, and theory are also discussed.

3.2 RESEARCH METHODOLOGY

The procedures or techniques used to identify, select, process, and analyse information about a topic are referred to as research methodology. The methodology section of a research paper allows the reader to critically examine the study's overall validity and reliability (Polit and Hungler, 2013). A quantitative study was conducted to investigate the attitudes, knowledge, and practices of people aged 18 to 49 years about cervical cancer screening. Quantitative study is empirical investigation of observable phenomena through statistics with an objective to develop or employ mathematical theories through the process of measurement.

Quantitative data is any numerical data that is analysed using statistics by the researcher. To assess objective variables, quantitative research explores the relationships between variables (Polit and Hungler, 2013). It also elaborates objective measurement, statistical, mathematical, or numerical analysis of obtained data via polls, questionnaires, and surveys, as well as modifying pre-existing statistical data via computational techniques. Quantitative research employs numerical data to make predictions about groups of individuals or to explain a specific phenomenon (Babbie, 2010). In order to research and describe the attitudes, knowledge, and practices of women aged 18 to 49 years on cervical cancer screening, the quantitative method was deemed the best.

3.3 RESEARCH DESIGN

The layout for addressing a research question with the condition of improving study virtue is known as research design (Polit & Beck, 2012). According to Botma (2010), research design consists of a blueprint and process for the study that contains findings from a wide range of sources, as well as thorough data gathering and analysis methods.

3.3.1 Exploratory study design

An exploratory design aims to produce new observations that assist mould knowledge into practice by examining sincerity of purpose from real practice (Polit & Beck, 2017). The exploratory design was utilized to investigate women's attitudes, knowledge, and practices about cervical cancer screening in the Nifas Silk Lafto sub-city. The exploratory research design was the most appropriate strategy for this study because the researcher sought to learn more about the women's attitudes, knowledge, and practices concerning cervical cancer screening.

3.3.2 Descriptive study design

Descriptive study design is an account of events as they exist where the investigator has no power over variables. It makes an attempt to define or describe what is and sheds light on current challenges by collecting data that allows for a more thorough assessment of the situation. It encompasses a wide range of phenomena. It's utilized to get into greater detail on a sample population component or behavior. This allows quantitative aspects to be processed. This design makes a phenomenon in completely natural non manipulated setting (Dudovsky, 2016).

The main objective of this research design approach is to accurately depict human qualities or situations, as well as the frequency of particular phenomena. An investigator conducting a quantitative study collects data from a representative sample of the population (Polit & Beck, 2012). According to Brink, van der Walt, and van Rensburg (2012), the investigator must devote all of his or her focus to the creation and provision of a detailed explanation of his or her findings, using audit trail, which is the foundation of how the investigator collected and processed data. When a specific field requires information, descriptive designs are used. The study design enabled the investigator to examine and describe women's attitude, knowledge, and practices regarding cervical

cancer screening in Nifas-Silk Lafto sub city.

3.4 STUDY SETTING

The research setting refers to the specific location(s) where data is collected (Brink & Ransburg, 2012). The physical state or location where data is collected in a study is referred to as a setting (Polit and Beck, 2012). The study takes place in the Nifas-Silk Lafto sub-city of Addis Ababa, Ethiopia's capital city, in three of the sub-nine city's Woredas, which were chosen randomly. The study was conducted at their residency within the sub city.

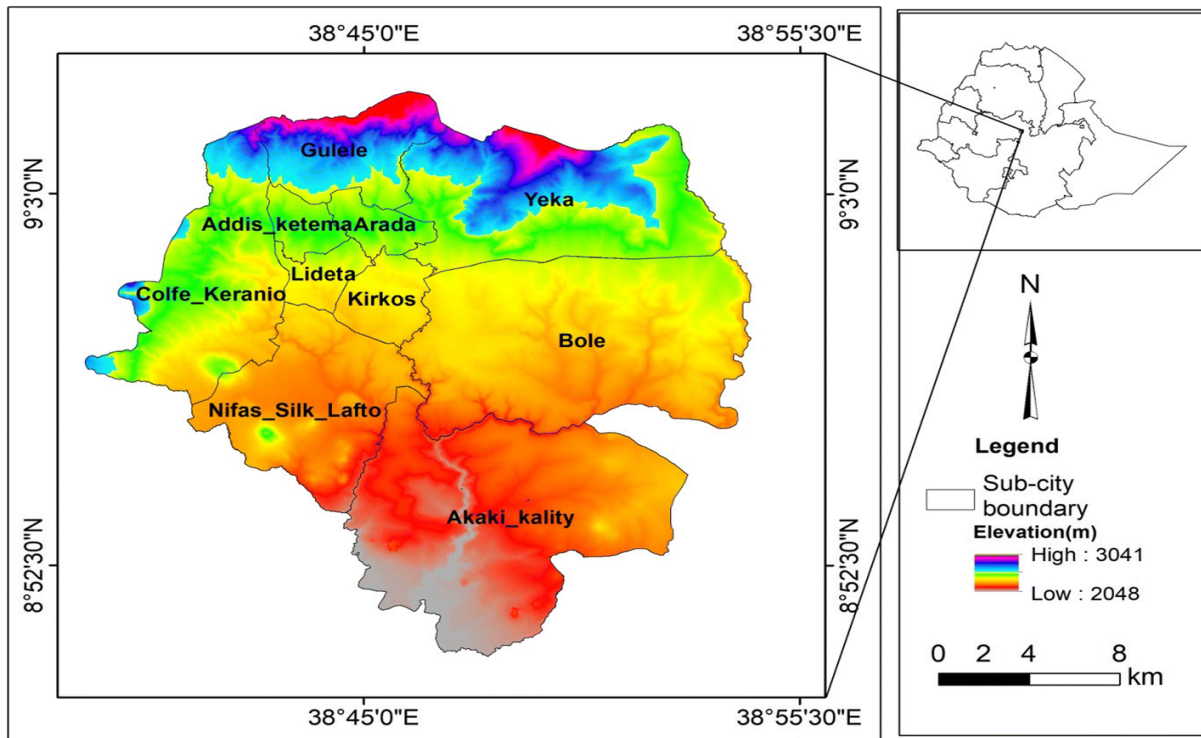


Figure 3.1. Map of Nifas Silk Lafto sub city within Addis Ababa

3.5 POPULATION

According to Polit and Beck (2012), population refers to the total number of people who share similar traits. Women between the ages of 18 and 49 years were studied in the Nifas-Silk Lafto sub-city. The total number of women accounts for 136,899 in 10,000 households in nine woredas of the sub city.

3.6 SAMPLING

A sample is a representative group of elements from a population. It is researched in order to gain information of the entire population (Bless, 2014). According to Polit and Beck (2012), a sample is a subset of the population that is used to represent the rest of society for economic and practical reasons. Furthermore, a higher sample size provides more accurate representation. The method of picking a subset of a population to represent the complete population is known as sampling (Polit and Beck, 2012). “The process by which elements are drawn from the population” is referred to as sampling (Fox and Bayet, 2007). Botma (2010) defines sampling as a technique of selecting a segment of the population to reflect the accessible population.

The probability sampling strategy was applied in this study. Probability sampling is a process for randomly selecting participants from a population (Polit and Beck, 2012). The study used stratified random sampling in two stages, with the first being random sampling of woredas in the sub city, followed by simple random sampling of women aged 18 to 49 years within a selected woreda. From the population of the Nifas Silk Lafto Sub city, the selected woreda and selected women in the Woreda have an equal chance of getting chosen. Systemic sampling is a method for randomly selecting samples from a list with a given interval from a well-formed collection. The selected sample has an equal chance of being chosen. Since these samples are uniformly scattered throughout the population, this strategy is utilized in homogeneous populations.

3.7 SAMPLE SIZE

The number of individuals or observations included in a study is referred to as sample size. The letter n is commonly used to indicate this number. Based on the data collected from a sample of 100 runners, the study findings might be used to describe the entire population of runners. When deciding on the number of participants to be included in the study, Brink, Van der Walt, and Rensburg (2012) believe that the investigator must evaluate scientific and pragmatic issues that influence sample size. These variables must change depending on the sample’s purpose, design, and type.

Three hundred women from three woredas were chosen at random from a total of 136,899 women in the sub city for this study. The sample size was estimated using a 95% confidence interval and a significance level of 0.05. The sample size of 287 was believed to be representative of the study population.

3.8 INCLUSION CRITERIA

Inclusion criteria refers to a collection of predetermined qualities used to identify participants in a research study. The eligibility criteria used to rule in or out the target population for a study is known as inclusion criteria (McElroy, 2014). It provides sample population consistency, increases, and decreases confounding, and increases and decreases the likelihood of discovering a true link between exposure and outcome (McElroy, 2014).

The inclusion criteria states that the subject must be part of target population (Burns and Grove, 2011). The researcher would want to emphasize the importance of defining who will be a part of the study. Accordingly, the following points were used to aid in sampling of appropriate sample for inclusion purposes:

- Women within age range of 18 to 49 years
- Respondents from Nifas silk Lafto sub city
- Women who agreed to participate and signed informed consent.

3.9 EXCLUSION CRITERIA

Exclusion criteria refers to a set of pre-set parameters that identify people who will not participate or will be compelled to quit a research study after being enrolled. Together, inclusion and exclusion criteria make up the eligibility criteria that determine whether or not a person is eligible to participate in a research study (Saldink, 2010). Exclusion criteria are certain population traits that a study population lacks. The following women were excluded from the study:

- Women outside of Nifas silk lafto subcity
- Respondents who did not agree to sign the consent form

3.10 VALIDITY AND RELIABILITY

The validity and reliability of the scales used in research are critical variables in ensuring that the study yields healthy results. In order to create beneficial and honourable outcomes, the investigator must be guided by rigor concepts (Leung, 2015). Rigour distinguishes between two major concepts: reliability and validity. The goal of establishing reliability and validity in research is to make sure that the data is reliable and repeatable, and that the results are correct. Validity and reliability evidence are required to ensure a measurement instrument's integrity and quality.

3.10.1 Internal validity

Validity refers to the degree to which the data collection instrument accurately measures what it is supposed to measure (Leung, 2015). Internal validity refers to the degree to which a study's findings are applied to the independent variable (McElroy, 2014). Internal validity threats are usually evaluated when evaluating a method's capacity to determine the causal relationship between the treatment and the outcome (Leung, 2015). Face validity denotes that the data collection device conveys the impression that it is measuring what it claims to be measuring (Polit and Beck, 2017).

The researcher used literature review to create a data collection tool. According to Polit and Beck (2017), validity and reliability are the major criteria for assessing the instrument's quality and adequacy. The measuring instrument's validity was determined by the variables under investigation.

3.10.2 External validity

External validity refers to a study's ability to be generalized from the original sample to the general population from which the sample was drawn (McElroy, 2014). The generalizability of findings, or the application of conclusions beyond the sample in a specific situation, is referred to as external validity (Little, 2013). To protect against threats, data was collected at participants' homes within the woredas, with no changes to the environment. For quantitative data, validity was maintained by utilizing a random sample, a good representative sample of the target population, and the appropriate

sample size. Since no prior characteristics are systematically shared by all members of either the control or treatment respondents with members of their own corresponding groups, but are systematically different between those groups, the effect of a program can be extrapolated to others beyond the specific sample examined.

3.10.3 Reliability

The ability of a measurement to consistently produce the same precise and steady result throughout time is referred to as reliability (Bless, 2014). A pilot study was used to assess the study's dependability. With no change in the environment, data was collected at participants' homes within the woredas. For quantitative data, the study's high reliability was ensured by random sample selection, a highly representative sample of the target population, and the appropriate sample size.

3.10.4 Objectivity

Objectivity is a positivist guideline that stipulates that investigators should alienate themselves from the study so that the results are based on the study's nature rather than the investigators' beliefs, attitudes, and principles (Bless, 2014). With reference to this study, the investigator and data collectors had no influence on the randomly selected women in the woreda.

3.11 INSTRUMENT FOR DATA COLLECTION

A questionnaire was utilized to collect data for this study. A questionnaire is a research tool that consists of a set of questions used to collect data from respondents in a survey or statistical study (Polit & Beck, 2012). The researcher or research assistants used interviewing to complete a self-structured questionnaire. The instruments are divided into four divisions, numbered 1 to 4. Section 1 covers respondents' socio-demographic factors, Section 2 covers respondents' knowledge of cervical cancer and screening, Section 3 covers cervical cancer and screening practices, and Section D covers respondents' attitudes regarding cervical cancer and screening.

3.12 DATA COLLECTION PROCEDURE

Data collection is the process of gathering detailed and systematic information from study participants in order to meet the research objectives and research questions (Burns and Grove, 2011). Similarly, Grove et al (2015) define data collection as the identification of study participants as well as the systematic collecting of meaningful information or data relevant to the study's research purpose, specific objectives, questions, or hypotheses. According to Brink et al (2012), researchers should be familiar with data collection instruments and ensure that the data or information collected is relevant to the study's specific objectives.

The investigator must carefully consider what type of data is required to answer the research question (Brink, Van der Walt & Rensburg, 2012). During the preparation of the data strategy, the investigator makes basic decisions such as the type of data to be collected (Polit & Beck, 2012). Data collection process describes the way of data collection. In a neutral environment, data is collected in a methodical and standardized manner (Polit & Beck, 2012). Before data is collected, the entire study procedure is completed. The survey's design is determined by the number of people who are willing to participate. It is the systematic gathering of data, which is then analysed to provide answers to research questions and to assess the outcome. The most important aspect of research design is data gathering. Various strategies are used in the data collection process. Which tool to use is determined on the research question (Parveen and Showkat, 2017). The data for this study was collected using self-completed questionnaires by data collectors in Nifas-Silk Lafto sub city from June to September 2017 at a specific point in time or by data collectors from randomly selected women at their home within specified woredas in Nifas Silk Lafto sub city.

Questionnaires were utilized to obtain data from study participants in the research study. Throughout the trial, the investigator reviewed and checked the data on a daily basis for completeness and consistency.

3.13 DATA ANALYSIS

The systematic assembly and production of research data is known as data analysis. Data is used to test hypotheses in quantitative studies (Polit and Beck, 2012). The

questionnaire was formatted and pre-coded with the help of a statistician for easy capturing on an excel spreadsheet, and the data was exported to SPSS version 26 for statistical analysis. It was used to explain and summarize data using tables and charts, and then the results were analysed (Polit and Beck, 2012). For the collecting of demographic data, the investigator employed descriptive statistics, as well as sorting and arranging data in order to present it in a scientific manner. For categorical and continuous variables, frequency and percentage were reported. Age was summarized using the mean, median, minimum, and maximum values, as well as the interquartile range. Cervical cancer screening practice was divided into two categories: those who had cervical cancer and those who had never undergone cervical cancer screening in their lives.

The Chi square test was used to see if there were any changes in cervical cancer screening practices between groups (e.g., knowledge, attitude, practice, and demographic background), with a statistical difference of 5%. The barriers to cervical cancer screening were also calculated using logistic regression. To assess the factors associated to a lack of cervical cancer screening, the odds ratio was determined. Inferential statistics is a method for generating population outcomes from sample data (Polit and Beck, 2012). In this study, data was collected, organized, and analyzed, and conclusions were drawn for the general population of Addis Ababa.

3.14 DATA MANAGEMENT

The term “research data management” refers to the collection of data from the beginning of a study to the distribution and filling of vital information. It entails active data arrangement and maintenance throughout the research process, as well as appropriate data preservation at the project’s conclusion. It is a continuous process that occurs throughout the data lifecycle, as shown in Figure 3.2 below.



Figure 3.2: Data management cycle

It aims for efficient research and tries to meet the expectations of the institute, as well as funders and legislation. It is concerned with the creation, usage, and organization of data, as well as the security and sharing of acquired data with collaborators and publication. Good research data management practices allow for reliable result verification and the creation of new, innovative studies based on previously collected data (Tedds & Whyte, 2011). In this study, data management was carried out throughout the study cycle, from data collection planning through data storage and archiving to fulfil the sections of the data collecting instrument, which included knowledge, attitude, and practice assessment.

The following steps were followed during data management:

Step 1: The researcher familiarized self with appropriate software with the support of the statistician and supervisors.

Step 2: Collected data was then logged in

Step 3: Data sources were then organized.

Step 4: The researcher read through the data and took some notes.

Step 5: Data was prepared for data analysis/transcription.

Step 6: Data was then entered into data analysis tool prepared.

The saved data was also clearly organized to show the relationship between socio-demographic status and knowledge, attitude, and practice, as well as the impact of knowledge and attitude on cervical cancer screening practice. Finally, the study attempted to correlate with past research from both the region and the country. Only the researcher has access to the data, which is kept in a lock and key safe.

3.15 ETHICAL CONSIDERATION

In any discipline, research involving humans or animals must address a variety of ethical concerns (Polit and Beck, 2012). For the current investigation, the investigator used a variety of ethical approaches to make ethical considerations a top priority in order for the study to be sound in every way. The ethics of research entails safeguarding the participants' rights as well as the integrity of the study (Burns and Grove, 2012). The study has received ethical approval from UNISA's Department of Health Studies ethical committee. After the receipt of the ethical clearance from UNISA, the application letter together with the permission was granted from Nifas Silk Lafto sub city and woredas health office.

This ethical principle emphasizes the right of respondents to know what the study is about and how it will affect them. The study's risks and benefits are addressed (Denny, 2015). To gain people's voluntary involvement in a study, an ethical principle requires an investigator to inform participants of potential risks and benefits (Polit and Beck, 2012). Respondents in this study were given information about the study's purpose. All participants over the age of 18 provided informed written as well as verbal consent. This ethical principle emphasizes the importance of safeguarding all information provided by respondents, particularly sensitive and personal information. Confidentiality is a state in which study participants are protected from publicizing of data they provided (Polit and Beck, 2012).

3.15.1 Ethical clearance process

To secure ethical approval, the investigator followed the succeeding procedures:

- The investigator obtained approval to conduct the research project from the University of South Africa, Department of Health Studies.
- The investigator submitted the application to conduct the research study to Nifas-Silk Lafto sub city health office.
- The investigator presented the request letter along with ethical clearance from UNISA to Nifas-Silk Lafto sub city health office for institutional consent.
- Nifas-Silk Lafto sub city health office granted institutional consent after assessment of investigator's letter and ethical certificate from University of South Africa.
- Formal data collection process started as per sampling procedure.
- All involved bodies were informed of their right to inquire and process the final result of this study output.

Each step maintained its ethicality since it was given due emphasis to the study.

3.15.2 Informed consent

When a willing person agrees to participate in research with full awareness before the study begins, this is known as informed consent (Brink, Van der Walt and Rensburg, 2012). Respondents who have enough understanding of the research, are able to interpret the material, and have the power of choice to assent to or deny voluntary involvement are said to have given informed consent (Polit and Beck, 2012). Before the subjects answered the questionnaire, the investigator got verbal and written consent from them. The researcher described the nature of the research study to the participants, its intended purposes, and gave the participants time to make an informed decision about the research study. The participants were also informed that they were participating in the study voluntarily and that they could leave at any time if they felt uncomfortable.

3.15.3 Privacy and confidentiality

The names of the participants were not used to maintain confidentiality and privacy. Confidentiality refers to how individuals' data is handled once they have shared it with

the expectation that it would not be shared with others. Permission of disclosure should be granted upon understanding of the original disclosure (USA department of health and human services, 2009). Confidentiality was maintained throughout this study. The questionnaire was completed with informed written and verbal consent, and no personal information was included.

3.15.4 Principle of beneficence

The principle of beneficence is a basic ethical guideline in research. The goal of an investigator is to maximize benefit while minimizing harm. This includes the right to be free of discomfort, harm, exploitation, and any other wrongdoing (Polit and Beck, 2012). According to Brink, Van der Walt, and Rensburg (2012), an investigator must ensure the safety of participants who have the right to be free of discomfort, bodily, psychological, social, or legal harm.

The study stressed the need of moral responsibility for the benefit of others. The investigators and data collectors ensured the participants' safety and comfort during the data collection process. Questions were rephrased so that it would not appear to be personal experience. Before the participants were interviewed, the purpose of the study was explicitly communicated, as was the relevance of the study findings in improving the use of cervical cancer screening among women aged 18 to 49 years.

3.15.5 Principle of justice

The principle of justice refers to the participants' right to fair choice and management. The investigator must select the study population in general and the participants in particular with fairness (Brink, Van der Walt and Rensburg, 2012)

- In the study, the investigator had fair selection of the women to participate in the study.
- The investigator also ensured that women who were willing to participate were involved in the study.
- Participants were equally honoured and had similar information of the study.

3.16 CONCLUSION

The chapter emphasized on study design and methods. It focused on ethical conduct of the study so that reliable scientific information is achieved. The next chapter involves presentation and discussion of findings.

CHAPTER 4

PRESENTATION OF THE RESULTS

4.1 INTRODUCTION

The purpose of this chapter is to describe the data that emerged from the responses to the questionnaires during the data analysis for this study. The perceptions of women in the Nifas silk Lafto sub-city around cervical cancer screening were described in this chapter. The investigator made contact with women from woredas in the sub-city who were chosen at random. The questionnaire was completed by a group of women chosen at random. Actual data gathering was done by the investigator and data collectors. The sociodemographic data, knowledge of cervical cancer and cervical cancer screening, attitude and practice of cervical cancer screening were all included in the questionnaire. The respondents or data collectors took 30 minutes to complete the questionnaire.

4.2 SOCIO-BIOGRAPHY OF RESPONDENTS

Respondents, investigators, and data collectors all filled out the questionnaire. The women who took part in the survey were between the ages of 18 and 49 years. All respondents gave their informed consent to participate in the study. Since the investigator and data collector could understand and speak Amharic, the respondents were able to express themselves clearly in their own mother tongue language. For analysis, the data was afterwards translated into English. Tables 4.1 shows the findings.

The socio demographic data included age, marital status, educational level, partners' educational level, livelihood and level of income. Only 287 of the 299 respondents that were chosen at random completed the questionnaire, accounting for 96% of the required sample size. The majority of the respondents were between the ages of 18 and 29 years, accounting for 64.8% (186 participants), with the 75th interquartile range of age being 35 years. The average age of the respondents is 23, with a median of 26 and a standard deviation of 9. The marital status of respondents revealed that 128 (44.6%) were single, 135 (47.0%) were married, and 22 (8.4%) were divorced or widowed. The majority of respondents (113 (39.4%) had university education, while 39 (13.5%) were either illiterate

or could read and write, 56 (19.5%) had primary education, and 79 (27.5%) had secondary education.

According to the findings, 227 (79.1%) were Christians, 41 (16.3%) were Muslims, and 19 (6.6%) chose other. Respondents who are married, whose partners' educational level, and who can read and write account for 26.1% (40 respondents), those with secondary education were 60 (39.2%), and those with higher education were 53 (34.6%). In terms of respondents' livelihood, those with private jobs were 86 (37.1%), government employees were 81 (34.9%), students were 39 (16.8%), and housewives were 26 (11.2%). Respondents with low monthly income were 98 (34.1%), those with middle income were 121(42.2%), and those with high income were 68 (23.7%).

TABLE 4.1: SOCIODEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS, N=287.

Characteristics	Frequency	Percentage (95% CI)
Age (in years)		
18-29	186	64.8 (59.2,70.2)
30-39	48	16.7 (12.8, 21.4)
40+	53	18.5 (14.3, 23.3)
Religion		
Christian	227	79.1 (74.1, 83.5)
Muslim	41	14.3 (10.6, 18.7)
Others	19	6.6 (4.2, 9.9)
Marital status		
Married	135	47.0 (41.3, 52.8)
Single	128	44.6 (38.9,50.4)
Divorced/Widowed	22	8.4 (5.6, 12.0)
Educational status		
Illiterate/ Read & Write	39	13.5 (10.0, 17.9)
Primary	56	19.5 (15.2, 24.4)
Secondary	79	27.5 (22.6, 32.9)
Tertiary	113	39.4 (33.9, 45.1)
Partner educational status (n=153)		
Read & Write/ Primary	40	26.1 (19.7, 33.5)
Secondary	60	39.2 (31.7, 47.1)
Tertiary	53	34.6 (27.4, 42.4)
Occupation (n=232)		
Student	39	16.8 (12.4, 22.0)
Government	81	34.9 (29.0, 41.2)
Housewife	26	11.2 (7.6, 15.7)
Private	86	37.1 (31.0, 43.4)
Income		
<1000 Birr	98	34.1 (28.8, 39.8)
1000-2000 Birr	121	42.2 (36.5, 47.9)
>2000 Birr	68	23.7 (19.1, 28.9)

4.3 KNOWLEDGE OF RESPONDENTS ON CERVICAL CANCER

The respondents' knowledge of cervical cancer screening was described using eleven measurement variables. Cervical cancer knowledge, cervical cancer screening, anyone you may know with cervical cancer, cervical cancer treatment type, risks and symptoms of cervical cancer are among the variables. Mass media was the most common source of information for 94 (32.8%) of those who heard, followed by 47 (16.4%) from physicians, 39 (13.6%) from friends, and 6 from print media. Only 160 (55.7%) of respondents know about cervical cancer screening, while 186 (64.8%) have heard about it. The most prevalent symptom of cervical cancer, according to respondents, is vaginal discharge, which accounts for 167 (58.2%) responses, followed by vaginal blood during sexual contact which accounts for 89 (31%) responses and 24 (8.4%) responses indicating that no knowledge of cervical cancer symptoms.

Multiple sexual partners are the most well-known risk factor for cervical cancer in women, representing 173 (60.3%) of respondents, followed by 43 responses for sexually transmitted disease (15%) and 29 responses for early sexual contact (10%). In a survey on cervical cancer cure knowledge, 206 (71.8%) of the respondents believe cervical cancer can be treated, whereas 78 (27.2%) do not believe cervical cancer can be cured. When asked if they knew someone with cervical cancer, 235 (81.9%) said they didn't, while 47 (16.4%) said they had met someone with the disease. According to a knowledge assessment of cervical cancer screening types, 42 (14.6%) know liquid-based cytology, 27 (9.4%) know VIA, and 11 (3.8%) know Pap, while the remaining 207 (71.6%) have no idea. Cervical cancer treatment knowledge of respondents revealed chemotherapy as the most known treatment modality among respondents 129 (44.9%), followed by surgery 66 (23%) and radiotherapy accounting for 86 (30%).

The knowledge assessment was based on a Blooms cut off that had been adjusted (study: 2007). A correct response rate of 80 to 100% indicated good knowledge. A satisfactory score ranges from 50 to 79%, with poor knowledge accounting for 50% or less of the correct answers.

Table 4.2 reveals that the majority of respondents 164 (57.1%) have good knowledge of cervical cancer and cervical cancer screening, followed by satisfactory knowledge 98 (34.1%).

TABLE 4.2: KNOWLEDGE SCORE OF RESPONDENTS, N=287

Characteristics	Knowledge score	
	Frequency	Percentage
Good	164	57.1
Satisfactory	98	34.1
Poor	25	8.7
Total	287	100.0

4.4 ASSOCIATION OF SOCIO DEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE SCORE

All respondents are from Addis Ababa. The respondents' religion had no bearing on their knowledge of cervical cancer. A correlation between demographic characteristics such as age, marital status, respondents' educational status, and partners' educational level and knowledge score has been discovered using cross tabulation and the chi square test. Respondents' ages were classified as 18-29, 30-39, and 40+, their marital status as married, divorced, or single, and their educational status as illiterate, primary, secondary, and tertiary. The partners' education is divided into three levels: primary, secondary, and tertiary.

TABLE 4.3: CROSS-TABULATION AND CHI-SQUARE TEST OF ASSOCIATION OF KNOWLEDGE VERSUS SOCIODEMOGRAPHIC CHARACTERISTICS, N=287.

	Knowledge score			Chi-square test of association		
	Good	Satisfactory	Poor	χ^2	df	p
	n (row%)	n (row%)	n (row%)			
Age				19.7	4	0.001
18-29	114(61.3)	49 (26.3)	23 (12.4)			
30-39	23 (47.9)	23 (47.9)	2 (4.2)			
40+	27 (50.9)	26 (49.1)	0 (0.0)			
Marital status				15.0	4	0.005
divorced	13 (54.2)	9 (37.5)	2 (8.3)			
married	82 (60.7)	50 (37.0)	3 (2.2)			
single	69 (53.9)	39 (30.5)	20 (15.6)			
Educational status				25.0	6	<0.001
illiterate	22 (56.4)	14 (35.9)	3 (7.7)			

primary	17 (30.4)	31 (55.4)	8 (14.3)			
secondary	57 (72.2)	19 (24.1)	3 (3.8)			
tertiary	68 (60.2)	34 (30.1)	11 (9.7)			
Partner educational status				15.5	4	0.004
primary	16 (40.0)	24 (60.0)	0 (0.0)			
secondary	40 (66.7)	17 (28.3)	3 (5.0)			
tertiary	38 (71.7)	13 (24.5)	2 (3.8)			

To analyse the relationship between knowledge score and socio demographic data, cross tabulation and chi square were used. Good knowledge scores was evident in all age groups, with the 18–29-year-olds scoring the highest at 61.3%. In comparison to other age groups, 12% of the same age group has poor knowledge. $X^2 (4, N=287) =19.7$, $p=0.001$. Married women account for 82% of good knowledge scores, followed by 69% based on marital status. In terms of respondents' educational status, tertiary educated respondents had a higher knowledge score with $X^2 (6, N=287) =25$, $p<0.001$. According to respondents' partners education, knowledge score increase with their educational status.

4.5 ATTITUDE OF RESPONDENTS ABOUT SCREENING OF CERVICAL CANCER

Participants' attitudes regarding cervical cancer screening were assessed using three variables: can cervical cancer be cured, should asymptomatic women be checked for cervical cancer, and cultural acceptability of screening. Around 78 (27.2%) of the respondents agreed that cervix carcinoma causes mortality, while 206 (71.8%) respondents indicated that cervical cancer can be cured. A total of 228 (79.8%) respondents agreed that asymptomatic women should be screened. While 59 (20.6%) respondents believe that women who are asymptomatic should not be checked. Furthermore, 186 (64.8%) of the respondents are aware of cervical cancer screening, while 101 are unaware (35.1%). Cervical cancer screening is culturally acceptable to 141 respondents (49.1%), but not to 146 (50.9%) of the respondents. Participants' attitude towards an asymptomatic woman going for screening revealed that 228 (79.8%) of the respondents believe the woman needs to undergo screening, while 59 (20.6%) of the participants suggested that screening was not necessary. Assessment of attitude if cervical cancer screening is culturally accepted revealed cultural acceptance in majority of respondents as revealed by 210 (73.1%) of the respondents while the other 77(26.8%) respondents have a negative attitude towards the practice.

4.6 ASSOCIATION BETWEEN SOCIO DEMOGRAPHIC CHARACTERISTICS AND ATTITUDE TOWARDS CERVICAL CANCER SCREENING

The attitude of respondents was evaluated in relation to demographic strata. The attitude of respondents was analysed using cross tabulation and the chi square test. The findings revealed a correlation between respondents' marital status, educational status, occupation, and income. Respondents with educational background of illiteracy, read and write have a poor attitude score while respondents with secondary and tertiary level education have good attitude score of 59 (52.2%) towards cervical cancer and screening with p value of 0.004. Married women have a favourable attitude score of 75 (55.6%), followed by single women with a score of 58 (45.3%). According to the respondents' occupation, those in private sectors have the best attitude, followed by government personnel with 51.3% and 38.7%, respectively. Respondents with a monthly salary of >2000ETB have a higher likelihood of having a positive attitude, with 35 (51.5%) having a positive attitude. With a $X^2(4, N=287) = 14, p=0.007$, there was a significant relationship between knowledge and attitude. Respondents with good and satisfactory knowledge scores have a better attitude, scoring 96 (58.5%) and 37 (37.2%), respectively.

TABLE 4.4: CROSS-TABULATION AND CHI-SQUARE TEST OF ASSOCIATION OF ATTITUDE VERSUS SOCIODEMOGRAPHIC CHARACTERISTICS AND ATTITUDE VERSUS KNOWLEDGE, N=287.

Characteristics	Attitude score			Chi-square test of association		
	Good <i>n (row%)</i>	Sufficient <i>n (row%)</i>	Poor <i>n (row%)</i>	χ^2	<i>Df</i>	<i>P</i>
Marital status				15.7	4	0.003
Divorced	4 (16.7)	12 (50.0)	8 (33.3)			
Married	75 (55.6)	38 (28.1)	22 (16.3)			
Single	58 (45.3)	52 (40.6)	18 (14.1)			
Educational status				12.9	6	0.004
Illiterate	20 (51.3)	11 (28.2)	8 (20.5)			
Primary	16 (28.6)	26 (46.4)	14 (25.0)			
Secondary	42 (53.2)	24 (30.4)	13 (16.5)			
Tertiary	59 (52.2)	41 (36.3)	13 (11.5)			
Occupation				18.5	6	0.005
Student	12 (30.8)	24 (61.5)	3 (7.7)			
Government	38 (46.9)	25 (30.9)	18 (22.2)			
Housewife	12 (46.2)	9 (34.6)	5 (19.2)			
Private	51 (59.3)	23 (26.7)	12 (14.0)			
Income (Birr)				14.0	4	0.007
<1000	42 (42.9)	35 (35.7)	21 (21.4)			
1000-2000	60 (49.6)	36 (29.8)	25 (20.7)			
>2000	35 (51.5)	31 (45.6)	2 (2.9)			
Knowledge				31.1	4	<0.001

Good	96 (58.5)	53 (32.3)	15 (9.1)
Satisfactory	37 (37.8)	39 (39.8)	22 (22.4)
Poor	4 (16.0)	10 (40.0)	11 (44.0)

4.7 PRACTICE TOWARDS CERVICAL CANCER SCREENING

Three variables were used to analyse women’s screening practices for cervical cancer, and the results are presented. The variables that were used were the number of visits to the clinic, the frequency of the visits, and the reason for not having a screening visit. As a result, 245 (85.4%) of those who took part in the study were not examined for cervical cancer. In their lifespan, only 42 (14.6%) were screened. When asked why they don’t get cervical cancer screening, 106 (38%) indicated it’s because of a lack of service, 72 (25.1%) said it’s because they’re afraid of the results, and 67 (23.3%) said it’s because they’re afraid of the operation.

TABLE 4.5: CLINICAL VISIT PRACTICE SCORE OF RESPONDENTS, N=287

		Clinic visit	
		Frequency	Percentage
Valid	Poor practice	246	85.7
	Good practice	41	14.3
	Total	287	100.0

4.8 ASSOCIATION BETWEEN SOCIO DEMOGRAPHIC CHARACTERISTICS AND PRACTICE TOWARDS CERVICAL CANCER SCREENING

In all socio-demographic characteristics, cervical cancer screening is poorly utilized with no discrimination. Cervical cancer screening is ineffective in all social strata. There was a relationship between age, married status, and educational status after cross tabulation and chi square test of socio demographic status with practice. All socio groups have a low rate of practice. The age group 18-29 years old has poor cervical cancer screening practice, with 173 (93.0%) having poor practice. When considering marital status, single respondents, 118 (92.2%) had poor practice, followed by divorced respondents, 22 (91.7%). Illiterate and primary school educated respondents have a poor history of cervical cancer screening, accounting for 36 (92.3%) and 53 (94.6%) of all respondents, respectively, with a p value of 0.001.

TABLE 4.6: CROSS-TABULATION AND CHI-SQUARE TEST OF ASSOCIATION PRACTICE VERSUS SOCIODEMOGRAPHIC CHARACTERISTICS, N=287.

	Clinic visit practice		Chi-square test of association		
	Good	Poor	χ^2	Df	P
	n (row%)	n (row%)			
Age (years)			23.9	2	<0.001
18-29	13 (7.0)	173 (93.0)			
30-39	15 (31.3)	33 (68.8)			
40+	13 (24.5)	40 (75.5)			
Marital status			10.8	2	0.005
Divorced	2 (8.3)	22 (91.7)			
Married	29 (21.5)	106 (78.5)			
Single	10 (7.8)	118 (92.2)			
Educational status			17.6	3	0.001
Illiterate	3 (7.7)	36 (92.3)			
Primary	3 (5.4)	53 (94.60)			
Secondary	22 (27.8)	57 (72.2)			
Tertiary	13 (11.5)	100 (88.5)			

A p value of 0.007 was found in a cross tabulation of knowledge score and cervical cancer screening behavior. Respondents with a high level of knowledge have a low rate of cervical cancer screening. Poor practice accounts for 132 (80.5%) of respondents with an excellent knowledge score, with $X^2 (2, N=287) = 9.9, p=0.007$. The tendency of poor practice increases with decrement in level of knowledge score, 89 (90.8%) and 25 (100%) for satisfactory and poor knowledge score as reported by respondents respectively.

Cross tabulation of attitude score with cervical cancer screening practice reveals that respondents at all levels of attitude score have poor screening practices. Respondents with good attitude have poor practice as reported by 102 (74.5%) participants. Cervical cancer screening is becoming more common as responders' attitudes change. Respondents with a positive attitude have a practice score of 96 (94.5%), whereas those with a negative attitude have a frequency score of 48 (100%).

TABLE 4.7: CROSS-TABULATION AND CHI-SQUARE TEST OF ASSOCIATION PRACTICE VERSUS KNOWLEDGE SCORE, AND PRACTICE VERSUS ATTITUDE SCORE, N=287.

	Clinic visit practice		Chi-square test of association		
	Good	Poor	χ^2	Df	P
	n (row%)	n (row%)			
Knowledge			9.9	2	0.007
Good	32 (19.5)	132 (80.5)			
Satisfactory	9 (9.2)	89 (90.8)			
Poor	0 (0.0)	25 (100.0)			
Attitude			28.1	2	<0.001
Good	35 (25.5)	102 (74.5)			

Sufficient	6 (5.9)	96 (94.1)
Poor	0 (0.0)	48 (100.0)

4.9 KNOWLEDGE, ATTITUDE AND PRACTICE CHARACTERISTICS OF RESPONDENTS

With a frequency of 164, the majority of respondents had a good knowledge score on cervical cancer screening (57.1%). Among these responders, 137 (47.7%) had a positive attitude score. When it came to analysing cervical cancer screening practice, neither a good knowledge score nor a good attitude score had an impact on cervical cancer screening practice. Only 41.3% of those polled went to a health facility for a cervical cancer screening.

TABLE 4.8: KNOWLEDGE, ATTITUDE AND PRACTICE CHARACTERISTICS OF RESPONDENTS, N=287

Characteristics	Frequency	Percentage (95% CI)
Knowledge		
Good	164	57.1 (51.4, 62.8)
Satisfactory	98	34.1 (28.8, 39.8)
Poor	25	8.7 (5.9, 12.4)
Attitude		
Poor	48	16.7 (12.8, 21.4)
Sufficient	102	35.5 (30.2, 41.2)
Good	137	47.7 (42.0, 53.5)
Clinical visit practice		
Poor practice	246	85.7 (81.3, 89.4)
Good practice	41	14.3 (10.6, 18.7)

Knowledge, attitude, and clinical practice scores of the participants, N=287

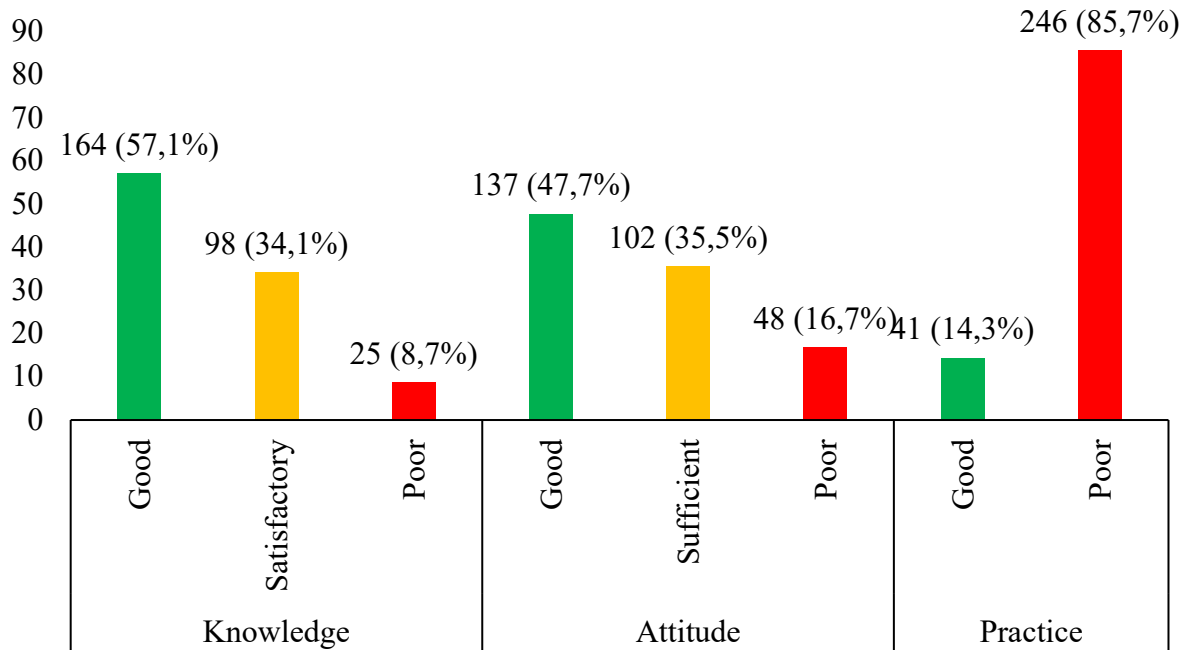


Figure 4.1: Knowledge, attitude, and clinical practice scores of the participants, N=287

4.10 CONCLUSION

This chapter focused on results of the study collected from the questionnaire. It showed the socio biographic data of respondents' knowledge, attitude and practice towards cervical cancer screening. It also focused on associations of socio demographic characteristics with knowledge score, between socio demographic characteristics and attitude towards cervical cancer screening, between socio demographic characteristics and practice toward cervical cancer screening, between knowledge score and attitude towards cervical cancer screening, between knowledge score and practice toward cervical cancer screening.

CHAPTER 5

DISCUSSION OF THE STUDY RESULTS

5.1 INTRODUCTION

The chapter will discuss results from the data analysis of this study based on the response of respondents in support of the findings. Control of literature was done to incorporate the study findings in existing literature. This chapter described attitudes, knowledge and practice of women aged 18-49 years regarding cervical cancer screening in Nifas Silk Lafto Subcity, Addis Ababa.

The investigator collected data using questionnaires which were completed by respondents. The investigator or data collectors were present during the actual data collection. The investigator contacted women in woredas which were selected by simple random selection within the sub city. Women in the selected woreda filled the questionnaire after simple random selection. The investigator and data collectors participated in the actual data collection. The questionnaire was organized into socio demographic data, knowledge of cervical cancer and cervical cancer screening, practice of cervical cancer screening and attitude to cervical cancer screening. The questionnaire took 30 minutes to fill in by the respondents or by data collectors.

5.2 KNOWLEDGE OF CERVICAL CANCER SCREENING

In this study, knowledge, attitude and practice about cervical cancer screening were examined. Three fifths (64.8%) of the respondents have heard about cervical cancer. This figure is higher than that of Nigeria, where only 15% of respondents had heard of cervical cancer (Anrolou, 2018). The predominant source of information was the media, which aligns with findings from an Ethiopian study (Tadesse, 2015). It's an indication that the media has a better chance of reaching a wider audience when it comes to educating women about cervical cancer. Community members around the country have free access to electronic media like radio and television. In contrast to a research conducted in Addis Ababa in 2008, health facilities were the primary source of information (Terefe and Gaym et al, 2017). The discrepancy could be attributable to the study subjects, location, and the fact that the respondents in earlier studies were reproductive health clients. In Itkara,

Nigeria, health workers provided 48% of the information, followed by electronic media and social media (Obalase, 2017). Only 51% of respondents have enough knowledge about cervical cancer, compared to 82% in the Democratic Republic of Congo and 71% in Nigeria. Respondents were able to identify one or more correct risk factors for cervical cancer, such as early onset sexual activity, multiple sexual partners, sexually transmitted disease, and smoking, when considering risk factors (Mitiku et al, 2016).

About half of the participants were aware that a foul-smelling discharge from the vaginal area is a sign of cervical cancer. This disparity could be attributable to cultural and socioeconomic differences between these two groups (Terefe, 2017). Another study from North Bengal, India, found that early marriage was the most common risk factor, accounting for 82% of cases (Raychaundhuri, 2012). Participants in this study had a 3.6% awareness rate, a 6.3% sign and symptom rate, and a 3.6% preventive rate for cervical cancer.

According to a Malaysian study of female students at tertiary institutions, just 6% of female students have had their cervical cancer risk factors checked, and the most common risk factor is multiple partners (77.5%). The lack of encouragement from a partner was an 88% barrier to screening (Al-Naggar, 2010). The most common risk factor for cervical cancer was having several sexual partners, followed by sexually transmitted disease and early sexual contact. Multiple sexual partners and early sexual intercourse were indicated as risk factors for getting cervical cancer in a Ugandan study (Mukama & Ndejjo, 2017).

According to the study, women with a greater income and educational level have a higher knowledge score. These women are more likely to be exposed to the media and health information centres. Women with a tertiary degree are one step ahead of the others in terms of knowledge (Ebu et al., 2018). HIV-positive women with a low level of education were 2.67 times more likely than those with no formal education to plan to screen. Those with a high level of education were 3.16 times more likely than those with no formal education to intend to screen. As a result, education of women of all ages must be prioritized in order for them to adopt healthy habits.

In this study, out of 287 participants, 100 (34.8%) were unaware of cervical cancer, 186 (64.8%) had heard about cervical cancer screening, and one participant did not respond. In a study of cervical cancer cure knowledge, 206 (71.8%) respondents claimed it can be cured, 2 (7%) said they didn't know, 78 (27.2%) said it can't be treated, and 1 didn't respond. When respondents were asked if they knew someone who had been diagnosed with cervical cancer, 47 (16.4%) said they had, while 235 (81.9%) said they didn't. According to the knowledge assessment on cervical cancer screening kinds, 207 (71.6%) did not know any type of cervical cancer screening, 42 (14.6%) knew liquid based cytology, and 27 (9.4%) knew VIA and 11 (3.8%) knew about Pap screening. A similar study in Mangalore, India, found that 81.9% of people knew nothing about cervical cancer or screening (85.5%).

A study in south-east Nigeria found that 8% of respondents knew how to avoid cervical cancer, but none knew about the human papilloma virus vaccine. For 84% of those who knew about cervical cancer screening tests, they acquired their information from a health care professional, 12% from television, and 8% through radio. In these studies, the most common cause for non-use of pap smear was a lack of, insufficiency, or inappropriate understanding regarding cervical cancer and its prevention (Mbamara, 2011). Health care practitioners were the source of cervical cancer screening information. A study conducted in east Uganda revealed that respondents' sources of information were radio (70.2%), health clinics (15.1%), and family/friends (13.1), (Mukama & Ndejjo, 2017).

According to a knowledge assessment of respondents on types of cervical cancer treatment, 129 (44.9%) indicate chemotherapy as the most well-known treatment modality, 66 (23%) say surgery, and 86 (30%) say radiotherapy, with the remaining 2.4% indicating traditional medicine as a viable option. As a result of the findings above, there are still women who are unaware of cervical cancer, necessitating the development of mechanisms to promote cancer knowledge.

5.3 ATTITUDE TOWARDS CERVICAL CANCER SCREENING

About two thirds of the respondents perceived that any woman can acquire cervical cancer. This study showed that, 137(47.7%) of the respondents have good attitude

towards cervical cancer screening, while a study done in UK among sub Saharan African female students showed majority had a negative attitude (Ogbonna, 2017).

In contrast, a study conducted in Songea revealed that women's attitude towards cervical cancer screening for women aged 18 years and above was 18%. Nearly 206 (71.7%) of the respondents agreed that cervical cancer can be treated (Mukama & Ndejjo, 2017).

Attitude assessment on respondents about screening of asymptomatic women revealed that 228 (79.8%) believe that an asymptomatic woman should go for screening, while 59% (20.6%) differed. The study results are supported by results from a study conducted by Mukama and Ndejjo (2017) in Eastern Uganda which revealed that majority of women regarded cervical cancer as a dangerous disease and pointed out that it's important that women be screened for early diagnosis. The results of the study conducted in Botswana amongst university students revealed that participants indicated that there is no need for young women to be screened for cancer because Pap smear is only used for existing cancer (Tapera et al, 2017). This is in line with the results of this study that states that if you don't have symptoms, there is no need to be screened for cancer. The study conducted by Jassim, Obeid and Nasheet (2018) indicated that majority of women had negative attitudes towards cancer screening because they felt embarrassed when examined by a male doctor hence could not go for cancer screening.

These results present the attitudes of women regarding cervical cancer which needs attention in order to save the lives of women from cancer. In addition, when women are screened, and cervical cancer is discovered, early treatment can be given, and their lives can be saved hence early diagnosis is key in cancer management.

5.4 PRACTICE OF CERVICAL CANCER SCREENING AMONG WOMEN

The practice of cervical cancer screening among respondents of this study is low (14.3%); compared to studies done in Ethiopia (Tadesse, 2015) which showed 2.2%, 6.5% in Addis Ababa (Terefe, 2017), 7% in Uganda and 12% in India (Gebreegziabher et al, 2016). Screening test in Nigeria accounts only for 2 (0.7%) (Olubodun, 2019). The main reasons for not being screened were lack of service, fear of results or fear of procedure.

Throughout North East Ethiopia, 11% of women have had cervical cancer screening in their lifetime; in northern Ethiopia, Mekele, 19.8% of women have had cervical cancer screening; while in North West Ethiopia, only 14.7% of women have had cervical cancer screening. In Addis Ababa, only 6.8% of respondents had been tested, (Getachew et al, 2019).

Lack of understanding and the absence of symptoms were among the reasons for the lack of cervical cancer screening. (Getachew et al, 2019). Another study found that not having symptoms, worry of the treatment being uncomfortable, and humiliation were all reasons for not getting screened for cervical cancer (Gebreegziabher et al., 2016). Poor understanding and awareness of the disease and screening techniques, lack of spousal support, physical access, cost of screening, and poor health care professional attitude were all cited as reasons for not selecting for cervical cancer screening in a study (Lim, 2017).

Source of information on cervical cancer for 95 (16.3%) respondents is from health workers, while for those who actively searched for such information were 67(11.5%) respondents, 23 (3.9%) respondents for radio, 21 (3.6%) respondents for internet and 19 (3.3%) respondents for magazine (Aweke, 2017). Media was the predominant source of information (55%) followed by health providers (33%), (Mitiku et al, 2016). A study conducted in eastern Uganda revealed that the source of information for women was from radio (70.2%) and health facilities (15.1%), (Olubodun, 2019). While in the presence of available screening services, only 17.7% considered themselves susceptible for cervical cancer. The main reason is due to their believe in spiritual protection (60.7%).

Accordingly, 246 (85.7%) respondents were not screened for cervical cancer. Only 41 (14.3%) were screened in their lifetime. When asked reasons for not being screened, 106 (38%) said it is due to lack of service, 72 (25.1%) said it is due to fear of result and 67 (23.3%) said it is due to fear of procedure. In contrast to current study, data from Limpopo province showed that women lacked knowledge of cervical cancer and its prevention methods. They have positive attitude towards cancer screening services if made available and awareness is created. The real challenge is inadequate information on available

services by health workers. This could lead to underutilisation of cancer services (Ramathuba, 2016).

This study found out that the level of knowledge of cervical carcinoma was associated with positive attitude score but not with practice of screening. The reasons could be attributable to fear towards the procedures of cervical cancer screening. Almost all of the respondents with poor knowledge did not have cervical cancer screening. However, some of the figures in these associations were small, and this study being done with cross tabulation, it was difficult to come into conclusion of the associations between level of knowledge with attitude as well as practice. In total, practice of cervical cancer screening is at its lowest accounting for 14.5%.

5.5 CONCLUSION

In this chapter, main results were discussed. The final conclusion was presented. This study found out good level of knowledge score on cervical cancer screening. Level of knowledge of cervical carcinoma was associated with positive attitude. In presence of good knowledge score and attitude score among respondents, practice of cervical cancer screening is poor. Level of poor practice increases as respondents' knowledge and attitude score decreases to sufficient and poor level. Lastly, practice of cervical cancer screening is at its lowest accounting for 14.5%.

CHAPTER 6

CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

6.1 INTRODUCTION

Cervical cancer affects 600000 women and kills 300000 women yearly. In particular, middle-aged women who live in lower resource settings are affected (Arbyn, 2018). An estimated 85% of new cervical cancer cases and 9 out of 10 deaths of cervical cancer in poor resource regions. Around 250 million women are at risk for developing invasive cervical cancer (Coleman, 2016).

Cervical cancer is neoplasm of the cervix. Human papilloma virus causes genital tract infection which progresses to cervical cancer. It affects younger women with early sexual contact, multiple sexual partners and exposure to other sexually transmitted diseases (American cancer society, 2015). Cervical cancer screening is used to detect precancerous changes, which if not treated leads to cancer. This is effective in well-organized system of follow up and treatment. All women above 21 years of age should begin screening. Women aged 21-29 years should have Pap test every 3 years. After 30 years, combination of Pap test and HPV test should be done every 5 years till 60 years of age (American cancer society, 2017). The study described women's' perception regarding cervical cancer screening in Nifas silk Lafto sub city. The investigator contacted women in randomly selected woredas in the sub city. Randomly selected women filled the questionnaire. The questionnaire was organized into socio demographic data, knowledge of cervical cancer and cervical cancer screening, practice of cervical cancer screening and attitude to cervical cancer screening. The questionnaire took 30 minutes to fill in by the participants or by data collectors.

6.2 PURPOSE AND OBJECTIVES OF THE STUDY

The largest burden of cervical cancer is seen in East and South Africa, with age-standardized incidence rates of 43.1 and 40.1 per 100,000, respectively (Beddoe, 2019). There are 29.43 million Ethiopian women aged 15 and above who are at risk of cervical cancer (Deresse et al, 2018). The service is provided at one of Addis Ababa's nine woreda health centres, which is currently at capacity. Despite the high prevalence of the

condition at a national level, the number of women who attend health clinics for screening is quite low. There is a lack of knowledge about diseases and screening methods, as well as a shortage of health clinics that provide the service.

6.3 RESEARCH DESIGN AND METHODS

The study used a quantitative design to explore and describe the attitude, knowledge and practices of women aged 18-49 years regarding cervical cancer screening. Quantitative research is testing objective theories by examining the relationship among variables (Khaldi, 2017). The design helped the investigator to explore and describe attitude, knowledge and practices of women aged 18-49 years regarding cervical cancer screening in Ethiopia.

6.4 CONCLUSION

The study showed average knowledge of respondents about cervical cancer. Predominantly, lack of knowledge is seen in women with low level education and low-income respondents.

Those respondents with good knowledge score had good attitude score towards cervical cancer screening. All respondents with poor knowledge did not have cervical cancer screening. In presence of good knowledge score and attitude score among respondents, practice of cervical cancer screening is poor. Level of poor practice increase as respondents' knowledge and attitude score decreases to sufficient and poor level.

Despite this fact, there is very low practice rate of cervical cancer screening. The most common reasons for poor practice are fear of results, fear of procedure and lack of service.

6.5 RECOMMENDATIONS

Women should be informed of their susceptibility of cervical cancer morbidity and mortality. Active and regular screening for premalignant and malignant lesion should be advocated. Such practice will enable early prevention and treatment of cancer

development. Education can create change of attitude among women in their society. Practice also follows change in attitude.

Since mass media is the main source of information for cervical cancer screening, emphasis should be given on more media coverage through TV and Radio regarding the problems of female cancers especially, on cervical cancer to create community awareness.

One of the main reasons for respondents with no screening is due to lack of service at hospitals, clinics and health centres found in Addis Ababa. More advocacy through print, digital media and at health facilities should be done to increase awareness regarding screening services like VIA which is available at these facilities.

The government should put priority on cervical cancer prevention by establishing a national awareness campaign, spreading screening services all over the country using cheap screening procedures that have shown to have reasonable sensitivity and specificity which will continue with appropriate follow up. This study is a stepping stone for further investigations in this field as literature review.

6.6 LIMITATIONS OF THE STUDY

In depth information, a sensitive issue is difficult to analyse in quantitative study. Qualitative methods are better to complement. From the variables, level of education may indicate exposure to few basic public medical issues of the nation. Social desirability bias can be introduced in matters of multiple sexual partners or early sexual contact. Stating the truth might give the respondents the implication of being ostracized from the society.

The government should put priority on cervical cancer prevention by establishing a national awareness campaign, spreading screening services all over the country using cheap screening procedures that have shown to have reasonable sensitivity and specificity which will continue with appropriate follow up.

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ANNEXURE A: RESEARCH QUESTIONNAIRE

Dear Respondent

Good day! I am Dr L.B Kedir, a master of public health student at the University of South Africa. The study focuses on knowledge, attitude and practice of women aged 18-49 years regarding cervical cancer screening in Nifas Silk Sub city during January-March 2017. Low cervical cancer screening causes are to be identified. In case you have any questions regarding the questionnaire, you can contact the researcher through leilakedir86@gmail.com or +251911700579. The respondent will not get any incentive for the participation. Thank you very much for your time and suggestions.

PART 1 EPIDEMIOLOGY				
Question number				
1.	Age			
2.	Sex			
3.	Religion	Muslim		
		Christian		
		Bahai		
		Atheist		
4.	Marital status	Single		
		Widowed		
		Married		
5.	Educational status	Illiterate	Yes	No
		Read and write	Yes	No
		Primary education	Yes	No
		Secondary education	Yes	No
		Tertiary education	Yes	No
6.	Husband education	Illiterate	Yes	No
		Read and write	Yes	No
		Primary education	Yes	No
		Secondary education	Yes	No

		Tertiary education	Yes	No
7.	Occupation	Governmental	Yes	No
		NGO	Yes	No
		Self employed	Yes	No
		Student	Yes	No
		Housewife	Yes	No
		Retired	Yes	No
8.	Parity	None		
		1-2 child		
		3-5 child		
		>5 child		
9.	Age at first sexual contact	<15 years	Yes	No
		>= 15 years		
10.	Age of menarche			
11.	Monthly income	Low	Yes	No
		Middle	Yes	No
		high	Yes	No
PART 2. KOWLEDGE OF CERVICAL CANCER AND SCREENING				
12.	Knowledge of cervical cancer		Yes	No
13.	Risk of cervical cancer	Michi	Yes	No
		Contraceptive use	Yes	No
		Multiple sexual partner	Yes	No
		Smoking	Yes	No
		Early sexual contact	Yes	No
		STI	Yes	No
14.	Symptom of cervical cancer	Vaginal bleeding	Yes	No
		Abdominal pain	Yes	No
		Vaginal discharge	Yes	No
		Pain upon coitus	Yes	No
		Cough	Yes	No
		Weight loss	Yes	No

15.	Is cervical cancer curable?		Yes	No
16.	Treatment methods	Radiation	Yes	No
		Surgery	Yes	No
		Chemotherapy	Yes	No
17.	Do you know anyone with cervical cancer?		Yes	No
18.	Screening method you know?	PAP screening	Yes	No
		Liquid based cytology	Yes	No
		VIA	Yes	No
		HPV DNA testing	Yes	No
19.	Source of information	Physician request	Yes	No
		Friend/relative	Yes	No
		News paper	Yes	No
PART 3. PRACTICE OF CERVICAL CANCER SCREENING				
20.	If yes to question number 18, have you visited clinic for screening?		Yes	No
21.	Frequency of visit	One time	Yes	No
		Two time	Yes	No
		Three time	Yes	No
		>4 times	Yes	No
22.	If no to question number 18, what seems to be the reason?	Lack of knowledge		
		Fear of outcome	Yes	No
		Lack of service	Yes	No
PART 4. ATTITUDE TOWARD CERVICAL CANCER SCREENING				
23.	Cervical cancer screening methods, are they culturally acceptable?	Yes	No	

24.	Asymptomatic women going for screening, applicable or not?		Yes	No
25.	Women with result of cervical cancer causes	Mitch	Yes	No
		Bad charm	Yes	No
		Evil spirit	Yes	No
		Witchcraft	Yes	No
		Medical illness	Yes	No
26.	Are these mode of treatment for cervical cancer?	Traditional healer		
		Herbal medicine	Yes	No
		Chemotherapy	Yes	No
		Radiotherapy	Yes	No
		Surgical management	Yes	No

Thank you for your time and response.

ANNEXURE B: CONSENT FORM

STUDENT NUMBER: 55778615

NAME: L.B KEDIR

CONSENT FORM

Title: “Attitudes, knowledge and practice of women aged 18-49 years regarding cervical cancer screening in Nifas Silk Lafto Sub city, Addis Ababa”.

Purpose of the study

Ethiopia has the highest number of cancer patients and deaths in Africa. The study targets attitudes, knowledge, and practice of cervical cancer screening among women aged 18-49 years. Focus is on discrepancy between rise of cancer and low screening coverage. Ethiopia’s cervical cancer screening data collection will improve.

Procedure and duration

Once respondents sign this form to participate, questions will be asked. It takes 30 minute to complete the questionnaire.

Risks and discomforts

Study participation has no physical or psychological harm. If psychological stress is present during the interview, the researcher/data collector will stop with the interview. Upon participants’ consent, another date is scheduled to continue.

Benefits and or compensation

The study has no compensation before, during or after participation.

Anonymity and confidentiality

Participant’s name is not included. All participants are given codes with Arabic numerals. But upon disclosure, explicit permission is requested.

Voluntary participation

Participation is voluntary. If withdrawal is needed, respondents are allowed to do so.

Authorisation

You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above. All your questions are answered, and you have decided to participate.

I hereby give consent to participate in this study.

.....
Name of participant	Signature of participant

.....
Place.	Date.	Witness

Statement by the Researcher

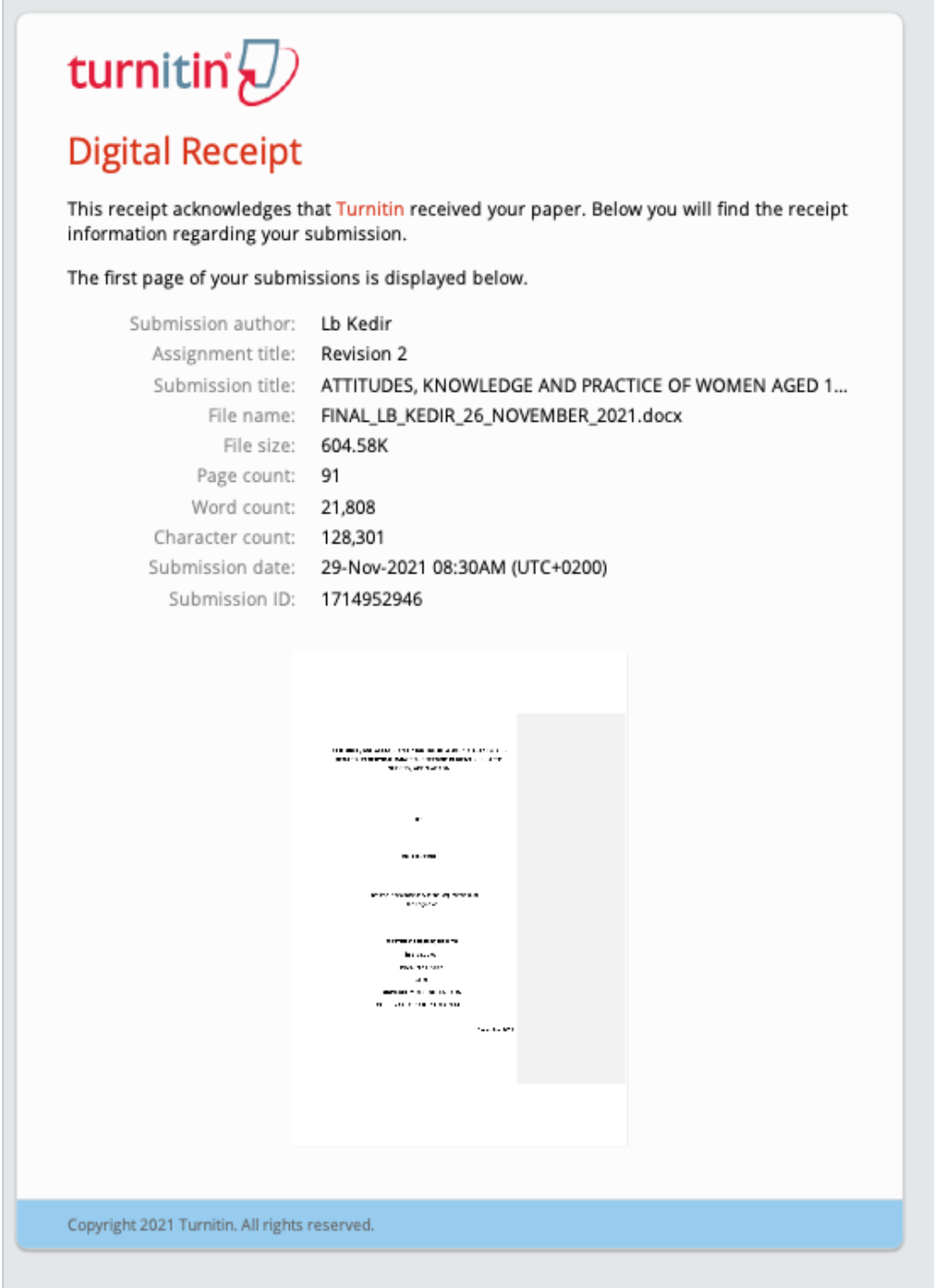
I provided verbal information regarding this study

I agree to answer any future questions concerning the study as best as I am able.

I will adhere to the approved protocol.

.....
Name of investigator	Signature	Date	Place

ANNEXURE C: TURNITIN RECEIPT



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ANNEXURE D: LETTER FROM LANGUAGE EDITOR



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Rosemarys.pes@gmail.com
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Midrand, 1684

12 DECEMBER 2021

To Whom It May Concern:

RE: LANGUAGE EDITING

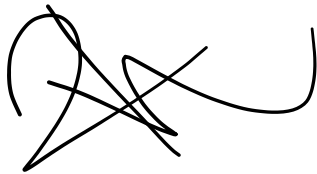
This letter serves as confirmation that language and technical editing was conducted by Rosemary's Proofreading and Editing Services. Further details of the study and the researcher have been provided below.

TITLE OF THE STUDY: ATTITUDES, KNOWLEDGE AND PRACTICE OF WOMEN AGED 18-49 YEARS REGARDING CERVICAL CANCER SCREENING IN NIFAS SILK LAFTO SUBCITY, ADDIS ABABA

Researcher: DR LB KEDIR

Student number: 55778615

Kind Regards



R MALULEKE (CODER & LANGUAGE EDITOR)

ANNEXURE E: ETHICAL CLEARANCE



**RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES
REC-012714-039 (NHERC)**

7 June 2017

Dear Dr LB Kedir

Decision: Ethics Approval

HSHDC/690/2017

Dr LB Kedir

Student: 5577-816-5

Supervisor: Prof PR Risenga

Qualification: D Cur

Joint Supervisor: -

Name: Dr LB Kedir

Proposal: Attitudes, knowledge and practices of women regarding cervical cancer screening in Nifas Silk Lafto Sub City, Addis Ababa.

Qualification: DIS4986

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted from 7 June 2017 to 7 June 2019.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on 7 June 2017.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*



University of South Africa
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www.unisa.ac.za

3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*


4) *[Stipulate any reporting requirements if applicable].*

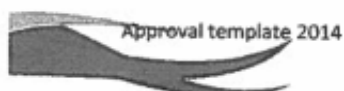
Note:

The reference numbers [top middle and right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Research Ethics Committee: Department of Health Studies.

Kind regards,


Prof L Roets
CHAIRPERSON
roetsl@unisa.ac.za


Prof MM Moleki
ACADEMIC CHAIRPERSON
molekmm@unisa.ac.za



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