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A COMPARATIVE STUDY TO ASSESS THE KNOWLEDGE REGARDING CERVICAL CANCER AMONG WOMEN RESIDING IN SELECTED RURAL AND URBAN AREAS

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INTRODUCTION

"The miracle of self-healing occurs when the inner patient yields to the inner physician."

-Vernon Howard

Cancer can start any place in the body. It starts when cells grow out of control and crowd out normal cells. This makes it hard for the body to work the way it should. Cancer is a disease process which cauterized by abnormal, uncontrolled cell growth Cancer cells differ from normal cells in many ways that allow them to grow out of control and become invasive. One important difference is that cancer cells are less specialized than normal cells. That is, whereas normal cells mature into very distinct cell types with specific functions, cancer cells do not. This is one reason that, unlike normal cells, cancer cells continue to divide without stopping.[1]

Cancer that forms in tissues of the cervix (the organ connecting the uterus and vagina). It is usually a slow-growing cancer that may not have symptoms but can be found with regular Pap tests (a procedure in which cells are scraped from the cervix and looked at under a microscope). Cervical cancer is almost always caused by human papillomavirus (HPV) infection. Cancer can spread from the surface of the cervix to tissue deeper in the cervix or to other parts of the body. Cervical cancer starts in cell lining of cervix –the lower part of uterus. Hence it is also known as uterine cancer.[2]

According to estimates from the World Health Organization (WHO) in 2019, cancer is the first or second leading cause of death before the age of 70 years in 112 of 183 countries and ranks third or fourth in a further 23 countries. Cancer's rising prominence as a leading cause of death partly reflects marked declines in mortality rates of stroke and coronary heart disease, relative to cancer, in many countries.[3] AIIMS Cancer education stated that, in India is likely to have over 17.3 lakh new cases of cancer and over 8.8 lakh deaths due to the disease by 2020 with cancers of breast, lung and cervix topping the list.[4]

The global cancer burden is estimated to have risen to 18.1 million new cases and 9.6 million deaths in 2018. One in 5 men and one in 6 women worldwide develop cancer during their lifetime, and one in 8 men and one in 11 women die from the disease. Worldwide, the total number of people who are alive within 5 years of a cancer diagnosis, called the 5-year prevalence, is estimated to be 43.8 million.[5]

According to WHO, Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. Approximately 90% of deaths from cervical cancer occurred in low and middle-income countries. The high mortality rate from cervical cancer globally could be reduced through a comprehensive approach that includes prevention, early diagnosis, and effective screening and treatment programs.[6]

WHO build the target that, No woman should die from cervical cancer. They have the technical, medical and policy tools and approaches to eliminate it. The burden of cervical cancer falls on the women who lack access to health services, mainly in low- and middle income countries. In May 2018, the Director-General of the World Health Organization announced a global call to action towards the elimination of cervical cancer. A

Global Strategy towards the Elimination of Cervical Cancer as a Public Health Problem was developed in close consultation with Member States, and in collaboration with UN Agencies and other partners and organizations. It outlines key goals and agreed targets to be reached by 2030 and set the world on track to elimination.[7]

American Cancer society stated the types of cervical cancer and cervical pre- cancers are classified by how they look in the lab s with a microscope. The main types of cervical cancers are squamous cell carcinoma and adenocarcinoma. Most (up to 9 out of 10) cervical cancers are squamous cell carcinomas. These cancers develop from cells in the exocervix. Squamous cell carcinomas most often begin in the transformation zone (where the exocervix joins the endocervix).[8]

Most of the other cervical cancers are adenocarcinomas. Adenocarcinomas are cancers that develop from glandular cells. Cervical adenocarcinoma develops from the mucus-producing gland cells of the endo-cervix. Less commonly, cervical cancers have features of both squamous cell carcinomas and adenocarcinomas. These are called adeno squamous carcinomas or mixed carcinomas. Although almost all cervical cancers are either squamous cell carcinomas or adenocarcinomas, other types of cancer also can develop in the cervix, such as melanoma, sarcoma, and lymphoma, occur more commonly in other parts of the body.[8]

Cervical cancer is caused by the sexually transmitted HPV, which is the most common viral infection of the reproductive tract. Almost all sexually active individuals will be infected with HPV at some point in their lives and some may be repeatedly infected. The peak time for infection is shortly after becoming sexual active. The majority of HPV infections resolve spontaneously and do not cause symptoms or disease. There are about 100 different strains of HPV. Only certain types cause cervical cancer. The two types that most commonly cause cancer are HPV-16 and HPV- 18.Being infected with a cancer-causing strain of HPV doesn't mean get cervical cancer. Immune system eliminates the vast majority of HPV infections, often within two years.[9]

Pre-cancer often does not cause any signs or symptoms. Symptoms do typically appear with early-stage cervical cancer. With advanced cancer or cancer that has spread to other parts of the body, the symptoms may be more severe depending on the tissues and organs to which the disease has spread. The cause of a symptom may also be a different medical condition that is not cancer, which is why people need to seek medical care if they have a new symptom that does not go away.[10]

Symptoms like Blood spots or light bleeding between or following periods, Menstrual bleeding that is longer and heavier than usual, Bleeding after intercourse, douching, Increased vaginal discharge, Pain during sexual intercourse, Bleeding after menopause, Unexplained, persistent pelvic and back pain. If these symptoms appear, it is important to talk with doctor about them even if they appear to be symptoms of other, less serious conditions. The earlier precancerous cells or cancer is found and treated, the better the chance that the cancer can be prevented or cured.[10]

The American Cancer Society Guidelines for the Prevention and Early Detection of Cervical Cancer shows that two most important things to prevent cervical cancer are to get the HPV vaccine for eligible group, and to be tested regularly according to American Cancer Society (ACS) guidelines. The most common form of cervical cancer starts with pre-cancerous changes and there are ways to stop this from developing. The first way is to find and treat pre-cancers before they become invasive cancers, and the second is to prevent the pre-cancers.[11]

The HPV test looks for infection by high-risk types of HPV that are more likely to cause pre-cancers and cancers of the cervix. There are certain HPV tests approved to be a primary HPV test and others approved as part of a co-test. The Pap test or smear is a procedure used to collect cells from the cervix so that they can be looked at closely in the lab to find cancer and pre-cancer. It's important to know that most invasive cervical cancers are found in women who have not had regular Pap tests. A Pap test can be done during a pelvic exam, but not all pelvic exams include a Pap test. If the test is positive, this could mean more follow-up visits, more tests to look for a pre-cancer or cancer, and sometimes a procedure to treat any pre-cancers that might be found.[11]

The American Cancer Society recommended that, HPV vaccination of children between the ages of 9 and 12. Children and young adults age 13 through 26 who have not been vaccinated, or who haven't gotten all their doses, should get the vaccine as soon as possible. Vaccination of young adults will not prevent as many cancers as vaccination of children and teens. The ACS does not recommend HPV vaccination for persons older than 26 years. It's important to know that no vaccine provides complete protection against all cancer-causing types of HPV, so routine cervical cancer screening is still needed.[11]

Treatment options depend on the stage of the cancer, the type of cervical cancer, the patient's desire to have children and the patient's age. Treatment of cervical cancer during pregnancy depends on the stage of the cancer and the stage of the pregnancy. For cervical cancer found early or for cancer found during the last trimester of pregnancy, treatment may be delayed until after the baby is born. The stage of the cancer (the size of the tumor and whether it affects part of the cervix or the whole cervix, or has spread to the lymph nodes or other places in the body). The chance of cervical cancer recovery depend on the type of cervical cancer, the patient's age and general health. Whether the patient has

a certain type of human papillomavirus (HPV).Whether the patient has human immunodeficiency virus (HIV).Whether the cancer has just been diagnosed or has recurred.[12]

Cervical cancer are cured by using five types of standardized treatment option that is Surgery, Radiation therapy, Chemotherapy, Targeted therapy, Immunotherapy. New types of treatment are being tested in clinical trials. Treatment for cervical cancer may cause side effects. Patients may want to think about taking part in a clinical trial. Patients can enter clinical trials before, during, or after starting their cancer treatment. Follow-up tests is needed to know the prognosis of cervical cancer. This tests are usually done every 3 to 4 months for the first 2 years, followed by check-ups every 6 months.[1]

BACKGROUND OF STUDY

Cervical cancer continues to be leading cancer killer among women and is a major public health problem especially in developing countries like India, where women don't have routine cervical cancer screening. It is quite common in women aged 50-70 but women of all ages can be affected. Carcinoma of the cervix is predominantly squamous cell cancer. It is less common than it once was because of early detection of cell changes by Pap smear. Cervical cancer is a major and devastating cause of mortality worldwide with an estimated global incidence of 5 lakhs new cases and 2.7 lakhs deaths annually among women. It is the 2nd most common cancer in women between 15 and 45 years of age and the 3rd most common cause of cancer related mortality in women.[6]

According to WHO projections, over 500 000 new cases of cervical cancer, of which over 90% were in developing countries. It is estimated that over 1 million women worldwide currently have cervical cancer, most of whom have not been diagnosed, or have no access to treatment that could cure them or prolong their life. In 2005, almost 260 000 women died of the disease, nearly 95% of them in developing countries, making cervical cancer one of the gravest threats to women's lives. In many developing countries, access to health services is limited and screening for cervical cancer either is non-existent or reaches few of the women who need it. In these areas, cervical cancer is the most common cancer in women and the leading cause of cancer death among women.[13]

The primary cause of cervical pre-cancer and cancer is persistent or chronic infection with one or more of the "high-risk" (or oncogenic) types of human papillomavirus (HPV). HPV is the most common infection acquired during sexual relations, usually early in sexual life. In most women and men who become infected with HPV, these infections will resolve spontaneously. A minority of HPV infections persist; in women this may lead to cervical pre-cancer, which, if not treated, may progress to cancer 10 to 20 years later. Women living with HIV are more likely to develop persistent HPV infections at an earlier age and to develop cancer sooner. Basic knowledge of women's pelvic anatomy and the natural history of cervical cancer gives health-care providers at primary and secondary levels the knowledge base to effectively communicate and raise the understanding of cervical cancer prevention in women, families and communities.[13]

Experience in developed countries has shown that well planned, organized screening programs with high coverage can significantly reduce the number of new cases of cervical cancer and the mortality rate associated with it. There is also evidence that general awareness about cervical cancer, effective screening programs, and the improvement of existing health care services can reduce the burden of cervical cancer for women and for the health care system. There is a huge difference in the incidence of, and mortality from, cervical cancer between developed and developing countries.[13]

The main reasons for the higher incidence and mortality in developing countries are lack of awareness of cervical cancer among the population, health care providers and policy-makers and absence or poor quality of screening programmes for precursor lesions and early-stage cancer. In women who have never been screened, cancer tends to be diagnosed in its later stages, when it is less easily treatable, limited access to health care services and lack of functional referral systems. The difference between developed and developing countries reflects stark inequalities in health status, and represents a challenge for health services.[13]

According to International Agency for Research on Cancer (IARC) number of countries have implemented cervical cancer control programmes in recent decades; some of these have produced significant decreases in incidence and mortality, while others have not. The reason for failure for implementing program is political barrier, community and individual barrier in which lack of awareness of cervical cancer as a health problem and attitudes, misconceptions, beliefs that inhibit people discussing diseases of the genital tract. Another barrier that is Economic (lack of resources), Technical and organizational barriers, caused by poorly organized health systems and weak infrastructure.[14]

Humariya Heena conduct a Cross-Sectional KAP study towards Cervical Cancer and Screening amongst Female Healthcare Professionals and the study background shows that Prognosis can be improved if screening is embraced and widely employed. For this, it is important that the healthcare workers are educated and well aware so that they can influence the beliefs and actions of the general public. Many studies have been conducted in other developing countries to gauge the knowledge and awareness about cervical cancer and to study the extent of utilization of the screening methods Healthcare workers can play a central role in raising awareness of the general public, and therefore, their knowledge needs to

be assessed and updated on a regular basis. In addition, in Middle Eastern countries, in particular patients seeking medical care prefer to have women as their caregivers with several studies providing traditional and religious beliefs as the main reason. Women are most likely to feel comfortable to talk about their symptoms with a female only. Even female healthcare providers are hesitant to talk about these issues with male physicians.[15]

According to the International Agency for Research on Cancer (IARC) India has the highest number of cervical cancer cases in the world. It affects only women mostly in late 40s or early 50s through human contacts. From infection the virus takes 15-20 years to develop and causes a cervical cancer in women's body so that preventive vaccine should be administered from the age of 9 to 26 years, so that she is safeguard. Nurses are in an ideal position to seek answers to questions to identify underlying facts and issues which affect the health seeking behavior of women. Research in this area should provide guidance for more effective health education and the provision of prevention services that will be more acceptable and attractive to women through health care providers.[14]

Researcher felt need produced awareness regarding cervical cancer, therefore, conducted this study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas.

NEED FOR STUDY

Incidents of cervical cancers are found to be declining among women in cities, while it is on the rise among their rural counterparts; early marriage is one reason for it. Personal hygiene is considered to be one of the most important factors in cervical cancer. There is some factor may raise a women's risk of developing cervical cancer like Human papillomavirus (HPV) infection. The most important risk factor for cervical cancer is infection with HPV, Immune system deficiency, Herpes, Smoking, Age, Socio-economic factors; Oral contraceptives.

Marc Arbyn, Elisabete Weiderpass, Laia Bruni, Silvia de Sanjosé, Mona Saraiya, Jacques Ferlay, Freddie Bray conduct a word wide analysis study, Estimates of incidence and mortality of cervical cancer and it shows that approximately 570 000 cases of cervical cancer and 311000 deaths from the disease occurred in 2018. Cervical cancer was the fourth most common cancer in women, ranking after breast cancer (2·1 million cases), colorectal cancer (0·8 million) and lung cancer (0·7 million). The estimated age-standardized incidence of cervical cancer was 13·1 per 100 000 women globally and varied widely among countries, with rates ranging from less than 2 to 75 per 100000 women.

Lack of awareness of screening methods, risk factors, and symptoms may lead to late diagnosis and poor prognosis of cervical cancer. The plan of this study was to assess the level of awareness about cervical cancer among women of rural and urban areas and do comparison between the rural and urban areas women.

Mr Ramesh mandrapu conduct study in Vishakhapatnam related to knowledge of cervical cancer among rural and urban women. Objective were to assess the knowledge of women among rural and urban areas. Result revealed that around 41.4% of the population were aware of cervical cancer as a type of cancer affecting women; only 10% of the population have knowledge on the screening of cervical cancer. Lack of awareness and knowledge on cervical cancer is noted more in rural population when compared to urban. Specific knowledge on cervical cancer screening is noticed as a critical object in determining whether a woman to undergo screening and study concludes that a strategy involving Government and NGO action, conducting awareness and screening programs is necessary to minimize the occurrence of cervical cancer in this region.[16]

Navreet Kaur Sain, Kamlesh Kumari Sharma, Shashi Mawar, Lalit Kumar, Sunesh Kumar conduct a Study on Awareness regarding cervical cancer, its risk factors and preventive practices is very low among Indian women. Methods were used for A comparative study was conducted using descriptive, cross sectional survey among conveniently sampled 100 women with cervical cancer (cases) taking treatment from cancer department of tertiary care hospital and 100 women relatives of patients with non-malignant diseases admitted in different medical, surgical, pediatrics wards of tertiary care hospital (controls). Self-developed, pretested, structured questionnaires validated by experts were used for data collection. Study Conclude that Substantial gaps in knowledge and preventive practices regarding cervical cancer were present in both groups. So there is a need to raise public awareness regarding risk factors and prevention of cervical cancer by modifying the risk factors.[17]

S. Kiranmaie conduct study on Cervical Cancer in India: An Overview of Preventive Aspects, Cervical cancer, is mainly caused by Human Papillomavirus infection. It is the leading cancer in Indian women and the second most common cancer in women worldwide. The differential pattern of cervical cancer and the wide variation in incidence are possibly related to environmental differences. Prevention by vaccination is emerging as the most effective option, with the availability of two vaccines. Questions and controversy remain regarding mandatory vaccination, need for booster doses and cost-effectiveness, particularly in the Indian context.[18]

V Shah, S Vyas, A Singh, and M Shrivastava, conduct a study on Awareness and knowledge of cervical cancer and its prevention among the nursing staff of a tertiary health institute in Ahmedabad, Gujarat, India. Materials and methods were used a cross- sectional interview-based survey regarding knowledge levels about cervical

carcinoma was conducted among the nursing staff from one of the tertiary health institutes of Ahmedabad, India. A structured questionnaire with multiple choices was used for data collection. Provision for open-ended responses was also made in the questionnaire. Department-wise stratification was carried out, and thereafter 15% of the total nursing staff from all departments were selected randomly so as to include a total of 100 nurses in the current study. The *Z* test was used as a test of significance, and a *P* value of <0.05 was considered as the level of significance.[19]

Agam B. Bansal, Abhijit P. Pakhare, Neelkamal Kapoor, Ragini Mehrotra, and Arun Mahadeo Kokane conduct a cross sectional study on Knowledge, attitude, and practices related to cervical cancer among adult women. Study was done on 400 females of reproductive age who presented to out-patient-department of All India Institute of Medical Sciences Bhopal. This study shows that despite the fact that women had suboptimal level of knowledge regarding cervical cancer, their attitude is favorable for screening. However, uptake is low in actual practice. Strategic communication targeting eligible women may increase the uptake of screening.[20]

Awareness has to be created among the rural women on this. The present study identifies the need to impart higher knowledge levels of women on cervix cancer. The study is aimed at the screening practices and their determinants among women. All such efforts, less information is available on the knowledge base of the Indian women on cancer of the Cervix. Especially in India, women themselves need to educate on cervical cancer with the help of social organizations and periodical check-ups. In the fitness of the situation, the women's knowledge level, the motivation for screening, psychosocial factors often determine health-seeking behavior.[9]

The knowledge of women is very poor resulting most of the time mortality is high & quality of life is poor due to unnoticed & undiagnosed cases of cervical cancer**.** Women are the back bone of the every family in rural and urban part of the India & shouldering major responsibilities in family. Everyone assumed that rural women have poor knowledge regarding disease than the urban women, there is need to do comparative study to assess the knowledge regarding cervical cancer among women residing in rural and urban areas of Nasik city.

TITLE

To assess the knowledge regarding cervical cancer among women residing in rural and urban areas.

PROBLEM STASTEMENT

"A comparative study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas"

OBJECTIVES

Primary objective

- To assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas.

Secondary objective

- To assess the exiting knowledge regarding cervical cancer among women residing in selected rural areas.
- To assess the exiting knowledge regarding cervical cancer among women residing in selected urban areas.
- To compare the knowledge regarding cervical cancer among women residing in selected rural and urban areas.
- To find out association between knowledge regarding cervical cancer among women residing in selected rural and urban area with selected demographic variable.

OPREATIONAL DEFINITIONS

Comparative

According to lexicon oxford dictionary, Measured or judged by estimating the similarity or dissimilarity between one thing and another; relative.[21]

In this study, dissimilarity between knowledge regarding cervical cancer among women residing in rural and urban areas in age group of 40-50 year.

Assess

According compact oxford English dictionary, calculate or estimate the value, importance or quality.[22]

In this study, assess the knowledge regarding cervical cancer among women's residing in selected rural and urban areas with age group of 40-5- years.

Knowledge

According to advance oxford learner dictionary, the information, understanding, and skills that you gain through education or experience.[23]

In this study, knowledge means information & understanding of women in rural and urban regarding cervical cancer as elicited through questionnaire.

Cervical cancer

According to medical dictionary, Cancer of the neck (cervix) of the uterus.[24]

With reference to present study, knowledge regarding, definition, incidence, causes and risk factor, mode of spread, symptoms and diagnostic test, prevention, management, prognosis.

Women

According to compact oxford dictionary thesaurus, it is an adult human female.[25]

In this study woman's age group of 40-50 years residing in selected rural and urban areas.

Rural Area
According to oxford dictionary, an area outside of cities and town.[26]

In this study women age group of 40-50 residing in selected rural areas of Nasik city.

Urban area
According to oxford dictionary, a geographical area constituting a city or town.[27]

In this study women age group of 40-50 residing in selected rural areas of Nasik city.

SCOPE OF THE STUDY
The scope of study explains the extent to which the research area will be explored in the work and specifies the parameters within the study will be operating.

Main purpose of this comparative study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas. Population or sample for the present study is 100 women residing in selected rural and urban areas with age group of 40-50 years old. There are 4 week for study is allotted. General system theory based conceptual framework were developed.

The research can be applied in following fields.

Oncology nursing
Many developed countries the annual incidence and prevalence of cervical cancer has decreased by 50%-70% after introduction of population based screening. So if women in India undergo screening for cervical cancer, it is possible to detect the cancer in early stages thereby reducing mortality and morbidity. Screening would be broadly influenced by:

- Knowledge about cervical cancer, its screening among women
- Role of health care providers who come in contact with women in hospitals and the sources of information
- Facilities available and the awareness of facilities.[28]

Community Health Nursing
In community this study helping to prevention of cervical cancer. The study can be used as assessing level of knowledge regarding cervical cancer among women residing in rural and urban areas.

Nursing Practice
The study can be used as evidence based practice by assessing level of knowledge reading cervical cancer among women residing in rural and urban areas and providing knowledge regarding cervical cancer prevention.

Nursing Education
The study can be used in teaching by the nursing teacher to teach the student. Organizing continue education, workshop for the staff.

Nursing Administration
The nursing administrator can use the study results to enhance the theoretical and practical knowledge of staff nurse at in-service education.

Nursing Research
The researcher can use this study as literature for his study. Study findings can be utilized as review of literature.

ASSUMPTION

1. There will be same knowledge regarding cervical cancer among women residing in rural and urban areas.
2. There will be difference between knowledge regarding cervical cancer among women residing in rural and urban areas.

DELIMITATION
Delimitation of the study are

1. Women age group of 40-50 years.
2. Women are in selected urban and rural area.
3. Woman present at the time of study.
4. Women who are willing to participate in study.
5. Women who can speak read and write and Marathi and Hindi language.

ETHICAL ASPECT
The study proposal was accepted by the ethical committee of the institution. Permission was obtained by the concerned authorities before conducting the study. Consent letter will be obtained by individual samples after explaining them the research process in their own language. Confidentiality regarding the samples information will be maintained by using code numbers by the investigator.

CONCEPTUAL FRAMEWORK
A model is a symbolic representation of some phenomenon. It is a representation or a systemic description of an object or phenomenon that shares important characteristic with another object, or it is symbolic representation of a concept.

As per WHO, the present A comparative study to assess the knowledge regarding cervical cancer among women residing in rural and urban areas. The frame work of present study is based on the systems model for assess the knowledge of women regarding cervical cancer.

The conceptualization of the study is based on general system study theory. The system theory was proposed in 1940 by Ludwig Von Bertaanffy. He emphasized that

real system are opened to and interact with their environment in order to achieve their goal.

According to the general system study theory, it's divided into three phases. That is Input, process and output.

Input-: Matter energy and information regarding from the environment.

Input refers to information regarding various demographic vales such Age, Marital status, religion, occupation, education, number of child, types of family, history of cervical cancer, knowledge regarding cervical cancer. These demographic variables are expected to influence the knowledge on the basis of which a questionaries' will be formulated.

Process-: Matter, energy and information that are modified is transformed within the system.

It refers to, assess the knowledge regarding cervical cancer among women age group of 40-50 years residing in rural areas.

Assess the knowledge regarding cervical cancer among women age group of 40-50 years residing in urban areas.

Compare the knowledge regarding cervical cancer among women residing in rural and urban areas.

Output-: Matter, energy and information that is released from the system into the environment.

In reference to present study, there will be some knowledge regarding cervical cancer among women residing in rural and urban areas.

There will be difference between knowledge regarding cervical cancer among women residing in rural and urban areas.

Feedback-: information regarding environmental responses used by system.

In this study, it refers to process of communication the comparison between women residing in selected rural and urban areas by pre-test.

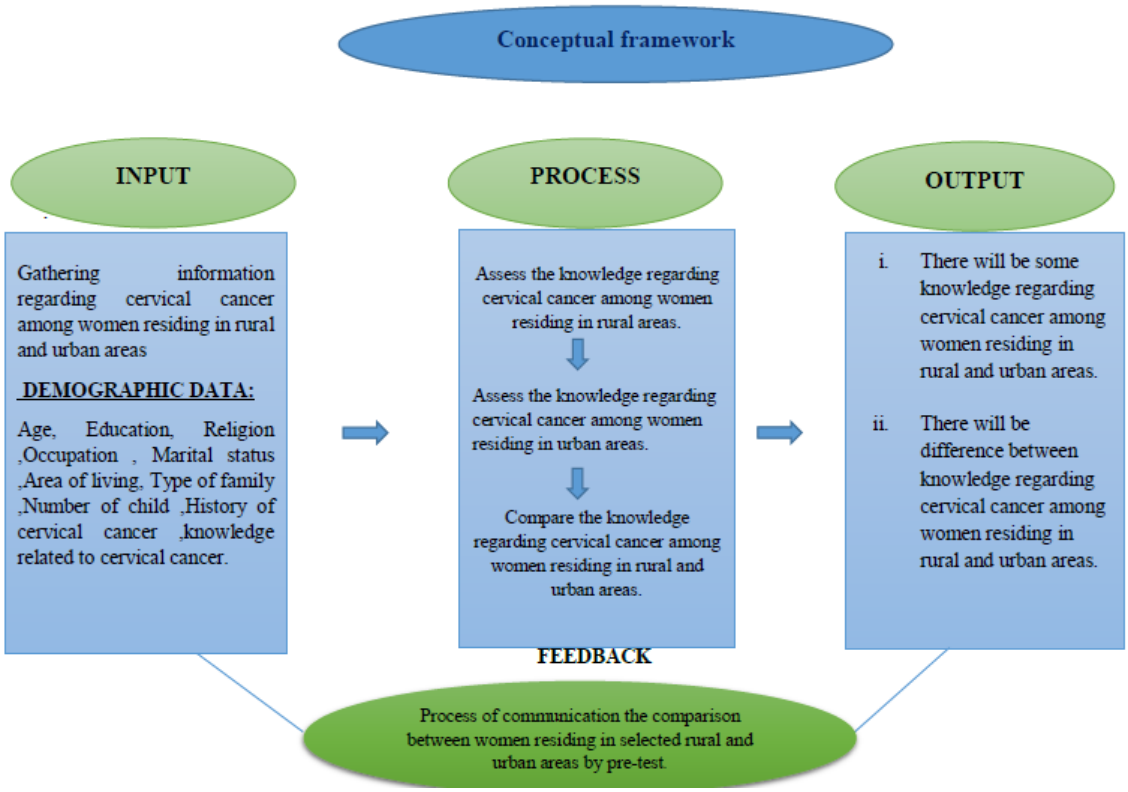

Figure No. The model is based on general system theory proposed in 1940 by Ludwig Von Bertaanffy.

SUMMARY

This chapter dealt with introduction, background of study, need for study, and statement of problem, objectives, assumption, scope of study, operational definitions, limitation inclusion and exclusion criteria ,and conceptual framework based on general system theory.

REVIEW OF LITERATURE

INTRODUCTION

Review of literature is a key step in research process. Review of literature refers to an extensive, exhaustive and systematic examination of publications relevant to research project. Most satisfying aspect of the literature review is the contribution it makes to the new

knowledge, insight, and general scholarship of the researches. The typical purposes for analyzing or reviewing existing literature are to generate research questions to identify what is known and not known about a topic, to identify conceptual of theoretical traditions within the bodies of literature, and to describe methods of enquiry used in other earlier works including their success and shortcomings.

Literature review is defined as a broad, comprehensive, in depth, systemic and critical review of scholarly publication, unpublished printed or audio-visual materials and personal communications. An attempt has been made to present the research literature reviews, organized under following headings.

- Review of literature related to cervical cancer among women residing in rural areas.
- Review of literature related to cervical cancer among women residing in urban areas.

1. Review of literature related to cervical cancer among women residing in rural areas

Handa Sheta, ahlawat poonam, Ms bharti, Mr.Ajay, Ms Renu (2019) conduct A descriptive study to assess the knowledge regarding cervical cancer among selected rural and urban areas of Gurugram, Haryana. 100 women were selected by using convenient sampling technique. Data was collected by using interview technique using structured questionnaire. Majority of the women have poor knowledge about cervical cancer (81.9% [68/83]) and it's screening (85.5% [71/83]). Only 6 out of 83 women had undergone screening. Study conclude that the women residing in rural areas was poor knowledge than the urban women.[29]

Charity Binka, Samuel H. Nyarko, Kofi Awusabo-Asare, and David T. Doku (2019) conduct study on Barriers to the Uptake of Cervical Cancer Screening and Treatment among Rural Women in Ghana, This study sought to explore the barriers to the uptake of cervical cancer screening and treatment in the North Tongu district of Ghana. Twenty-five in-depth interviews were conducted, while three focus group discussions were held among respondents. Inadequate education about the disease, lack of funding and access to screening facilities also constrained screening and treatment at the policy level. Conclusions of this study was cervical cancer screening and treatment are constrained at multiple levels in rural Ghana.[30]

Mohammadi Somyeh, Mehri Rejali, Mahnaz Mostajeran and Ghasem Yadegarfar (2019) conduct a study on Relationship between Risk Factors for Cervical Cancer and Knowledge and Attitude of Health Workers toward Pap smear in Isfahan and Its Comparison with Chaharmahal and Bakhtiari Province, Iran. This cross-sectional study was conducted on 1900 female health workers in Isfahan province and 230 similar women in Chaharmahal and Bakhtiari province). Study conclude that considering the importance of knowledge and attitude of female health worker in both provinces, it is necessary to carry out educational programs especially in the provinces of Chaharmahal and Bakhtiari.[31]

Thapa Niresh, Muna Maharjan, Marcia A. Petrini, Rajiv Shah, Swati Shah, Narayani Maharjan, et al (2018) conduct A cross-sectional study to find out the Knowledge, attitude, practice and barriers of cervical cancer screening among women living in mid-western rural, Nepal. Population were the Women aged 20 or more was interviewed using a structured questionnaire regarding the socio-demographic information, knowledge, attitude, practice, and barriers to the cervical cancer screening. Total of 360 participants were recruited for this study. Finding shows that more than 87% of participants had inadequate knowledge, but around 72% had a favorable attitude towards cervical cancer screening. There was a significant portion of women (86.4%) had never done any cervical cancer screening test. Study conclude that the adequate knowledge and practice of cervical cancer screening were meager among rural Nepalese women, but most of them had a favorable attitude.[32]

Konathala Geetha, Mandarapu Ramesh, Pavani Sanapala and Sudhakar Godi (2018) conducted research on cervical cancer: knowledge among urban and rural women of Visakhapatnam district, Andhra Pradesh. It is a cross-sectional study in which by using self-administered anonymous questionnaire based survey has been conducted on 500 females (both married and unmarried) covering both urban and rural areas of Visakhapatnam, Andhra Pradesh. Around 41.4% of the populations were aware of cervical cancer as a type of cancer affecting women; only 10% of the population has knowledge on the screening of cervical cancer. Lack of awareness and knowledge on cervical cancer is noted more in rural population when compared to urban. This study concludes that a strategy involving Government and NGO action, conducting awareness and screening programs is necessary to minimize the occurrence of cervical cancer in this region.[33]

Ndejjo Raw lance, Musabyimana, Angele, Halage Abdullah Ali and David Musoke (2017) conduct A cross sectional study to assess Women's knowledge and attitudes towards cervical cancer prevention in Eastern Uganda. This study was conducted in Bugiri and Mayuge districts in eastern Uganda. It was a community based survey and collected data by means of a questionnaire. A total of 900 women aged 25–49 years participated in the study. A study Conclude that general knowledge about cervical cancer prevention was relatively high among women, and attitudes mostly encouraging, specific knowledge about screening was low.[34]

Tongtong Liu, Shunping Li, Julie Ratcliffe, Gang Chen (2017) conduct A cross- sectional study to assessing Knowledge and Attitudes towards Cervical Cancer Screening among Rural Women in Eastern China.

In total, 420 rural women were randomly recruited. Each woman participated in a face-to-face interview in which a questionnaire was administered by a trained interviewer. A total of 405 rural women (mean age 49 years old) were included in the final study. Result of the study show that knowledge of cervical cancer among rural women in eastern China was found to be poor, and the screening uptake was not high albeit a free cervical cancer screening program was provided.[35]

Tope Olubodun, & Oluwakemi Ololade Odukoya, Mobolanle Rasheedat Balogun (2017) conduct a descriptive cross-sectional study to assess Knowledge, attitude and practice of cervical cancer prevention, among women residing in an urban slum in Lagos, South West, and Nigeria. Populations were covered 305 women of reproductive age in Idi Arabia, Lagos, Nigeria. Multistage sampling method was used to select respondents. Data was collected using interviewer administered questionnaires. Statically Results shows that only 39 (12.8%) had heard about cervical cancer. Study concludes that there is need for increased awareness creation and health education programs on cervical cancer prevention among such population of women.[36]

G Narayana, M Jyothi Suchitra, G Sunanda, J Dasaratha Ramaiah, B Pradeep Kumar, et al.. (2017) conduct a cross sectional study on Knowledge, attitude, and practice toward cervical cancer among women attending Obstetrics and Gynecology Department in South India. Descriptive statistics were used to represent the socio demographic characteristics and KAP levels. Association of socio demographic variables with KAP levels is determined using Chi-square test. This study conclude that women are having good knowledge, positive attitude toward cervical cancer screening and prevention still there is a gap to transform it into practice. There is a need for more educational programs to connect identified knowledge slits and uplift of regular practice of cervical cancer screening.[37]

Yitagesu Habtu Aweke, Samuel Yohannes Ayanto, Tariku Laelago Ersado (2017) conduct a Community-based cross-sectional study on Knowledge, attitude and practice for cervical cancer prevention and control among women of childbearing age in Hossana Town, Hadiya zone, Southern Ethiopia. The aim of this study was to assess knowledge, attitude, practices and factors for each domain for cervical cancer among women of child bearing age in Hossana town. A total of 583 participants were selected using systematic random sampling technique. Study conclude that this study highlighted the importance of awareness creation, increasing knowledge, promoting active searching for health information and experiences of receiving information from any information sources regarding cervical cancer. Therefore, it will be essential to integrate cervical cancer prevention strategies with other reproductive health services at all level of health care delivery system.[38]

Zohre Momenimovahed, Hamid Salehiniya (2017), conduct a study on Incidence, mortality and risk factors of cervical cancer in the world, cervical cancer imposes a huge global burden. The aim of this study was to investigate the incidence, mortality, and geographical distribution of cervical cancer and its risk factors in the world. Study showed that the incidence of cervical cancer varies considerably between developed and developing countries. The findings of this study demonstrated that several factors including sexually transmitted infections, reproductive factors, hormonal influences, genetics and host factors are responsible for the incidence of cervical cancer. Study conclude that the results of this review study suggested that combination of biological, economic and health factors contributes to the incidence of cervical cancer. A large proportion cervical cancer can be prevented by prevention programs, lifestyle enhancement, smoking cessation, and timely and effective treatment of precancerous lesions.[39]

Redhwan Ahmed Al-Naggar, Zaleha Md Isa, (2017) conduct a Qualitative Study on Perception and Opinion of Medical Students about Pap Smear Test. Objective of this study is to explore the perceptions of medical students regarding the Pap smear test. In Methodology main Focus group discussion was held with twenty three medical students. The students were divided into three focus groups; two groups of female participants consisting of 9 and 8 students; respectively. The third group consisted of 6 male students. The data obtained were classified into various categories and analyzed manually. Study Conclude that the main barriers for women to not perform Pap smear test is lack of awareness, shyness and the cost of the test. Gender of the physician will affect the women decision to do Pap smear test.[40]

Ghosh Supriti & Sneha D. Mallya & Ranjitha S. Shetty, & Sanjay M. Pattanshetty et al 2017) Knowledge, Attitude and Practices Towards Cervical Cancer and its Screening Among Women from Tribal Population: a Community-Based Study from Southern India, A community-based cross-sectional study was conducted among 1140 women aged 20–65 years from three tribes. Results revealed that Mean age of the participants was 39.8 ± 10.1 years. Although 82.9% of the participants reported to have heard of cervical cancer, 51% were aware that the disease could be prevented, and only 2.3% knew that it can be detected at an early stage. Over 75% of the participants did not have adequate knowledge regarding cervical cancer. Study conclude that Overall knowledge regarding cervical cancer among the surveyed women was poor, though they exhibited a positive attitude. This calls for a sustained health education and screening program to create awareness and improve the uptake of cervical cancer screening among these women.[41]

Veerakumar A.M (2017) conduct a study on Knowledge of Carcinoma Cervix among rural women of

Reproductive age in Trichy district, India. This study was carried out to assess the knowledge of cervical cancer among women in rural areas of Trichy District. Community Based- Cross sectional study was conducted in the months of February and March 2016 in the rural areas of Vellanur and Pullambadi with a sample size of 300. Only Reproductive age group women (15 years-45 years) were included. Convenient sampling method was used. Study Conclude that Knowledge among women in the study area was found to be low. To reduce the incidence of cervical cancer, awareness regarding the disease has to be created among the public.[42]

Bhabani Pegu, Niharika Dhiman, Jaya Chaturvedi, Suresh K. Sharma(2017) conduct a study on Nurse's knowledge and attitude regarding cervical cancer screening at a tertiary care hospital, The objective was to assess the level of knowledge and explore attitude towards cervical cancer screening among female nursing staff. The study showed that, female nursing staff had average knowledge and positive attitude towards cervical cancer screening. They were not aware of the routine screening guidelines and had limited understanding of different types of cervical cancer screening techniques. Hence, it is recommended that routine training should be given on regular basis to all the health care providers.[43]

Cubie HA, Morton D, Kawonga E, Mautanga M, Mwenitete I, Teakle N, et al (2016) conduct study on HPV prevalence in women attending cervical screening in rural Malawi using the cartridge-based Xpert HPV assay. Design were used Liquid-based cytology (LBC) specimens were collected from women attending cervical screening clinics in Nkhoma, Malawi. Xpert HPV testing was carried out according to manufacturer's instructions. Partial genotyping results were obtained immediately. Study conclude that HR-HPV testing using Xpert HPV was practical in a small rural laboratory. The rapid turnaround could facilitate a 'see and treat' programme. Partial genotyping allows assessment of risk beyond HPV 16/18. The high prevalence of HPV 31 and related types warrants further investigation.[44]

Toan Tran, Richard Taylor, Won Suk, Hae Suk Pyo, Hyon CholSo (2016) conduct a descriptive cross-sectional study Knowledge, Attitude and Practice (KAP) Concerning Cervical Cancer and Screening among Rural and Urban Women in Six Provinces of the Democratic People's Republic of Korea Nguyen. A purposive sample technique on 200 women in 6 provinces of DPRK (rural: n=99, urban: n=101) were interviewed using a standardized questionnaire. Differences between proportions were assessed using the $\chi 2$ test. 42% knew that it is the most common cancer of the female reproductive tract, 55% knew that all women are at risk, but only 36% were aware of cervical cancer's preventability. Some 13% of rural and 29% of urban respondents had heard of cervical cytology testing.[45]

Patel1 Vandana N, Piyush K Solanki, Harshid L Patel (2016), conduct a study on awareness about early detection of cervical cancer by Pap smear screening amongst women of Bhavnagar District. Among them 100 women were from rural area and 100 were from urban area. Data was collected using a questionnaire. This study has shown that women in region lack knowledge of cervical cancer and its prevention by early detection by Pap smear both in the rural as well as the urban areas. This study clearly conveys the message that the rural women's educational status need to be strengthened at all levels. The study conclude that, there was inadequate knowledge and practice among certain women groups, especially those above 30 years old, married at young age, and those with low education level. Some women also had a positive attitude, although they needed to have reassurances that could reduce the barriers.[46]

Shakila S (2015) conduct a descriptive study to assess the knowledge regarding cervical cancer among women in kanchipuram district, the objective of the study to assess the level of knowledge regarding cervical cancer. Univarient research design were adopted to conduct the study on 50 samples. Convenient sampling technique were used .data were collected by administering the structured questionnaire on cervical cancer and result revealed that 35(70%) women had inadequate knowledge, 15(30%) had moderate knowledge regarding cervical cancer.[47]

V Arunadevi, Prasad Geetha (2015) conduct A cross sectional study to assess knowledge and awareness of cervical cancer among women in rural India, karpaga vinayaga Institute of Medical Science and Research Centre. Interview based survey was conducted in May 2015.200 women attending a well women clinic were asked to complete a questionnaire assessing cervical cancer awareness and specific knowledge about prevention of the disease. Statically result shows that in total only 13 out of 200 respondents were aware of HPV Vaccine. Study Conclude that the low screening participation among Indian women may be due to limited awareness and knowledge about cervical cancer screening examinations.[48]

George Jisa, Dr.kiran batra (2015) conduct A cross sectional study to assess beliefs and attitude regarding cervical cancer prevention and screening in rural community of Kerala. Population were 100 women in rural community Idukki, non -probability purposive sampling technique was adopted. Result shows that mean attitude score of participants regarding cervical cancer prevention and screening was 67+16.75, (61%)had negative attitude (34%) had positive attitude and 6%had neutral attitude regarding prevention and screening of cervical cancer. study conclude that community based intervention programme should be implemented to improve the attitude and uptake of women regarding cervical cancer.[49]

Cunningham Melissa, Emily Skrastins, Ryan Fitzpatrick, Priya Jindal, Olola Oneko, Karen Yeates, et al (2015) conduct A cross-sectional study to determine Cervical cancer screening and HPV vaccine acceptability among rural and urban women in Kilimanjaro Region, Tanzania. By using interview administered questionnaires including multistage random sampling within urban and rural areas. Women aged 18–55 were asked to participate in the survey. The overall response rate was 97.5%, with a final sample of 303 rural and 272 urban dwelling women. Women from both rural and urban areas had low vaccine-related knowledge; however, most indicated they would be highly accepting if it were readily available (93%). Study Conclude that the current proportion of women screened for cervical cancer is very low in Kilimanjaro Region.[50]

Schlichte Megan, and Jacqueline Guidry (2015), conduct study on Current Cervical Carcinoma Screening Guidelines, A formidable threat to the health of women, cervical carcinoma can be prevented in many cases with adequate screening. The current guidelines for cervical carcinoma screening were created as joint recommendations of the American Cancer Society (ACS), the American Society for Colposcopy and Cervical Pathology (ASCCP) and the American Society for Clinical Pathology (ASCP) in 2012, and later accepted and promoted by the American Congress of Obstetricians and Gynecologists (ACOG). The 2012 recommendations underscore the utility of molecular testing as an adjunct to cytology screening for certain women and provide guidance to clinicians based on different risk-benefit considerations for different ages. This manuscript will review screening techniques and current recommendations for cervical cancer screening and human papilloma virus (HPV) testing, as well as possible future screening strategies.[51]

Alhamlan Fatimah, Ahmed A Al-Qahtani, Mohammed N Al-Ahdal, (2015) conduct a Current studies on human papillomavirus in Saudi Arabia, Human papillomavirus (HPV) infection is a significant etiological factor and an important prognosticator in cervical cancer. Indeed, researchers worldwide have confirmed these roles for high-risk HVPs in over 70% of cervical cancer cases. According to the World Health Organization, approximately 561,200 new cancer cases (5.2% of all new cancers) are attributed to HPV infection. Data on the prevalence of HPV, survival of infected patients, and mortality rate are scarce in Saudi Arabia. The un substantiated assumption of a low prevalence of HPV in Saudi Arabia has contributed to limiting HPV research in this conservative country. Therefore, the goal of this review is to shed light on the current HPV research being conducted and the prevalence of HPV in Saudi Arabia.[52]

Paras Kharbanda, Dinesh Kumar Singh, Radhika Anand, Anju Singh (2015), conduct a Study on awareness amongst women in rural and urban areas about early detection of cervical cancer by Pap smear. The sample size was 100 women urban and 100 women rural. This study clearly conveys the message that the rural women's educational status need to be strengthened at all levels. Most women in this study showed positive attitude towards screening on being informed about its procedure and its utility. Embarrassment was reported as barriers among these study participants regarding pain and discomfort associated with Pap smear test was reported as a barrier in this study.[53]

Dr. Ramamurthi Rathna, Dr. S. Rajarajeswari, Dr. R. Ranjani Devi, (2015) conduct A Cross Sectional Study on Comparison of Knowledge Attitude And Practices Regarding Cervical Cancer Screening And HPV Vaccination, Between Employed And Unemployed Women. Main aim of this study to assess and compare the knowledge, attitude and practices regarding cervical cancer screening and HPV vaccination between unemployed and employed women. Random sampling from OPD as representatives of unemployed women. Study Conclude that the knowledge on cervical cancer, screening tests and HPV vaccination was poor in rural, unemployed women compared to employed women. But when appropriate knowledge and facilities are provided, the unemployed women are more likely to adopt theses interventions.[53]

Mali Nootan R, Ramling Mali (2014) conduct a quasi-experimental study to assess Effect of Structured Education on Knowledge Regarding Prevention of Cervical Cancer among A.N.M. Students ,Institute of Nursing Education & Paramedical Sciences, Dombivli (E), India. Method were single group pretest, post- test design used, on 80 ANM student nurses from School of Nursing with convenient sampling technique. Results revealed that ANM student nurses have deficit knowledge regarding prevention of cervical cancer. Study shows that ANM student Nurses knowledge regarding prevention of cervical cancer was inadequate thus structured education helps to enhance the knowledge of ANM student nurses regarding prevention of cervical cancer to equip them in care of women in rural area as female field worker.[55]

2. Review of literature related to cervical cancer among women residing in urban areas.

Bathija Geeta V., Shreya Mallesh, Madhavi Gajula (2014) conduct A cross-sectional study on awareness of cervical cancer among women of reproductive age group in urban slums of old Hubli, Karnataka, India. A study among 200 women of reproductive age group, chosen conveniently for a period of two months from April to June 2014 at urban slums of Old Hubli was undertaken by a pretested and semi-structured questionnaire. Data collected by a house to house survey, study conclude that awareness about cervical cancer was poor among women and also its screening tests, H.P.V vaccinations were never heard of in the community.[56]

Kumar HN Harsha and Shubham Tanya, (2014) conduct A Study on Knowledge and Screening for Cervical Cancer among Women in Mangalore City. This was a questionnaire based cross-sectional study conducted among the women attending the outpatient departments of teaching hospitals attached to Kasturba Medical College. A sample size of 83 was calculated. A semi-structured questionnaire was developed. Student's independent's' test was used to compare mean knowledge scores across socio- demographic groups. Study conclude that Majority of women had poor knowledge. Mass media could be used to educate the women. There is a need to conduct community based study to know the practices of doctors and assess if they are educating and offering suggestions for screening.[57]

Abdulaziz Ahmed Al-Darwish&, Abdullah Fouad Al-Naim &, Khalid Saleh AlMulhim, et al (2014) conduct study on Knowledge about Cervical Cancer Early Warning Signs and Symptoms, Risk Factors and Vaccination among Students at a Medical School in Al-Ahsa, Kingdom of Saudi Arabia. The main aim of this study to assess the knowledge regarding symptoms, risk factors and prevention of cervical carcinoma among medical students in the Kingdom of Saudi Arabia, the present study was planned by using self-administered questionnaire. Study conclude that Lack of knowledge regarding early signs and symptoms, risk factors and prevention of cervical cancer was observed in the present study.[58]

Shin-je Ghim, Partha Sarathi Basu, AB Jenson (2014) conduct a study on Cervical Cancer: Etiology, Pathogenesis, Treatment, and Future Vaccines. Cervical cancer is a sexually transmitted disease caused by the human papillomavirus (HPV), especially HPV- 16 and -18 of the half million new cases of cervical cancer reported yearly, 20% occur in India. Curative and palliative treatments are not the same for all patients with cervical cancer because the result depends on the immunological response of the patient. This article describes the natural history of cervical carcinogenesis and the rationale behind various modalities of prevention and treatment for the practicing gynecological oncologist. Prophylactic vaccines against HPV-16 and -18 and therapeutic vaccines against cervical cancers should be able to overcome the logistical problems that now exist to screen, diagnose and treat cervical cancer and its precursor lesions.[59]

Suryapriya Balan Thovarayi, Judith Angelitta Noronha, Shobha. Nayak (2014) conduct a cross sectional study on Knowledge of cervical cancer screening among rural Indian women. This study was designed to assess the knowledge of cervical cancer, its symptoms, and the Pap (Papanicolaou) smear test for screening and screening guidelines. A study was conducted among 407 women aged 21-65 years in a randomly selected village of udupitaluk in Karnataka. The data was collected using a valid knowledge questionnaire. Study conclude that there is very poor knowledge of cervical cancer screening among women. Effective female education and mass screening are necessary for successful cervical cancer screening programme in India.[60]

Vanderpool Robin, Maudella G. Jones, Lindsay R. Stradtman, **Jennifer S. Smith, Richard A. Crosby (2013)** conduct An exploratory study of acceptability among medically underserved women in rural Appalachia regarding Self-collecting a cervico- vaginal specimen for cervical cancer screening. Population were covered the women aged 30–64 who were overdue for guideline-recommended cervical cancer screening were recruited from a primary care clinic in south-eastern Kentucky. All of the women with negative results declined nurse navigation to Pap testing, whereas 4 of the 5 women with positive results accepted nurse navigation and received subsequent Pap smear screenings.

Study Conclude that among this sample of Appalachian Kentucky women, self-collecting a cervico-vaginal specimen for HPV testing was highly acceptable.[61]

Osman Ortashi1, Hina Raheel, Musa Shalal, Nawal Osman, (2013) conduct a study on Awareness and Knowledge about Human Papillomavirus Infection and Vaccination among Women in UAE, The aim of this study was to assess the knowledge of women regarding HPV infection and vaccine in UAE. Materials and Methods were used A cross- sectional survey of 640 women aged 18-50 years was conducted in Al-Ain district in UAE using convenience sampling. Logistic regression analysis was performed to assess the association of HPV knowledge with independent factors like age, education etc. Study conclude that the knowledge of HPV infection and vaccine is low in the UAE. Few women recognized HPV as sexually transmitted infection. Increasing age and husband's education are associated with better knowledge of HPV infection.[62]

Kobra Hajializadeh, Hassan Ahadi, Farhad Jomehri, Mehdi Rahgozar (2013), conduct a study on Health beliefs and screening behavior of cervical cancer among the women of Bandar Abbas, Pap smear test is recommended for early diagnosis of cervical cancer in women without any symptoms. Cross section method conducted on 727 married women referring to the health centers of Bandar Abbas and they were selected by two-state sampling method. The data collection instrument was a questionnaire designed by health belief model. The regression analysis of the barriers, perceived susceptibility and benefits were the final predictors of the behavior of Pap smear test. Study conclude that according to the results, by the increase of susceptibility, severity, benefits and reduction of perceived barriers to cervical cancer, the predicting behaviors of the health of cervical cancer are improved and show that the health

belief model is a useful framework to identify the effective factors on applying Pap smear among Iranian women.[63]

Matthews, Chien- Ching Li1, Natalie Ross, Jodi Ram BA, Rebecca Ramsey MPH and Frances Aranda (2013), conduct a study on Breast and Cervical Cancer Screening Behaviors of African American Sexual Minority Women. Data were collected using a self-administered survey instrument. Participants (N=226) were a convenience sample of urban African American sexual minority women recruited as part of a community health needs assessment study. Study findings suggest the need for increased efforts to reduce cancer risk behaviors and to encourage adherence to routine cancer screening among African American sexual minority women. Additional research is needed to better understand barriers and facilitators to adherence to cervical cancer screening in this population.[64]

Goyal Alok, Gunvant Vaishnav, Anjani Shrivastava, Ragini Verma, Anjali Modi (2013) conduct a study on knowledge, attitude & practices about cervical cancer and screening among nursing staff in a teaching hospital. A self-administered, structured, open ended and pretested questionnaire covering the general characteristics, KAP about cervical cancer and screening (Pap smear) was used to collect responses of nurses in a Teaching Hospital at Surat. Study conclude that for successful implementation of cervical screening program, the nurses should be targeted first by education and sensitization so that they can play pivotal role in developing the awareness, confidence and compliance of women.[65]

Chaudhuri Sreejata Ray, Sukanta Mandal (2012) conduct a case study on Current Status of Knowledge, Attitude and Practice (KAP) and Screening for Cervical Cancer in Countries at Different Levels of Development. Analyses have shown significant differences exist in terms of screening and HPV testing facilities among high income and low to middle income countries. A detailed review of Indian case studies revealed that early age of marriage and childbirth, multiparty, poor personal hygiene and low socio- economic status among others are the principal risk factors for this disease. This review concludes that a two pronged strategy involving strong government and NGO action is necessary to minimize the occurrence of cervical cancer especially in low and medium income countries.[66]

Debbie Saslow, Diane Solomon, Herschel W. Lawson, Maureen Killackey, Shalini L. Kulasingam, et al. (2012), conduct a study on American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology Screening Guidelines for the Prevention and Early Detection of Cervical Cancer, An update to the American Cancer Society (ACS) guideline regarding screening for the early detection of cervical precancerous lesions and cancer is presented. The new screening recommendations address age-appropriate screening strategies, including the use of cytology and high-risk human papillomavirus (HPV) testing, follow-up (e.g, the management of screen positives and screening intervals for screen negatives) of women after screening, the age at which to exit screening, future considerations regarding HPV testing alone as a primary screening approach, and screening strategies for women vaccinated against HPV16 and HPV18 infections.[67]

Zeynep Arabacı, Suheyla Ozsoy, (2012) conduct A Qualitative Study on The Pap-Smear Test Experience of Women in Turkey. The study was planned with the purpose of examining the attitude of women who have pap-smear test for the early diagnosis of cervical cancer, factors affecting their decisions and their feelings and experiences during this period. A phenomenological method was used and purposive samplings. Study conclude that as women perceive gynecological examinations differently from other examinations, they have different feelings in each process of the Pap smear test. Medical staff should advise women more clearly on the nature and advantages of the Pap-smear test.[68]

Mazumdar Harajyoti, Das Rictika, Dibya Jyoti Hazarika, Indrani Choudhury (2012) conduct a comparative study on Factors associated with the cervical cancer patients among the rural and urban areas of Kamrup district, Assam. In a survey related to cervical cancer, they have reported that many women's in rural areas unable to detect at right time and unaware about its risks. Few of them know about the screening eligibility and interval in screening required for this disease. Physical issues were also reported such as bowel dysfunction, fertility, incontinence, lymphedema and odour were more in urban areas. Malnutrition was found to be more prevalent among physical issues in rural patients than urban ones. The main contributing factors lead to these diseases was lack of awareness, financial constraints, unavailable of trained manpower and lack of national level programmes. All these factors were seems to be lack in rural areas. However, Government organizations and NGOs were come forward to fight against this deadly diseases.[69]

Joy Teresa, Sathian Brijesh, Chacchu Bhattarai, Jenny Chacko, (2011) conduct A Cross-Sectional, Questionnaire Based Survey on Awareness of Cervix Cancer Risk Factors in Educated Youth: in India, Nepal, and Sri Lanka. Main aim of this study was to evaluate the awareness of cervix cancer risk factors among Educated Youth with respect to socio demographic factors. Results indicate that there is an urgent need for a reinvigorated and tailored approach to cervix cancer prevention among the educated youth in India, Nepal and Srilanka. Prevention efforts should be focused on improving social awareness, enforcing education strategies to reduce risk factors and improving the strength and quality of counselling.[70]

Fauziah Abdullah, Norlaili Abdul Aziz, Tin Tin Su, (2011) conduct study on Factors Related to Poor Practice of Pap Smear Screening among Secondary School Teachers in Malaysia, This underlines the need to identify the prevalence of Pap smear practice and influencing factors towards the practice among educated working women. Methods were used a survey conducted with 403 female teachers from 40 public secondary schools in Malaysia selected by cluster random sampling by using a self-administered questionnaire. Multivariate logistic regression was performed to identify the factors related to the Pap smear practice. Study conclude that Barriers towards practicing Pap smear exist even among educated career women.[71]

Emel Tasci Duran (2011), conduct a Qualitative Study, on Examination with the Health Belief Model of Women's Attitudes to Cervical Cancer and Early Diagnosis in Turkey. The study sample constituted from 11 women being treated at two clinics, between the ages of 15 and 49, who were married, and who had not previously had a pap-smear test. Semi- structured interview was recorded in audio recording device. Content analysis method was used to assess the data. Study conclude that it became clear from interviews carried out in line with the health belief model why women did not exhibit positive health behavior. It is recommended that this study should be repeated in other parts of Turkey.[72]

A Sahal, A Nag Chaudhury, P Bhowmik, R Chatterjee (2010), conduct a study on Awareness of Cervical Cancer among Female Students of Premier Colleges in Kolkata, India. They were assessed knowledge levels of female college students about cervical cancer, its risk factors, the human papillomavirus (HPV) etiologic agent and Pap (Papanicolaou) smear testing for screening. They conducted a questionnaire survey of the students (N=630), aged 17 to 24 years, in Kolkata, India. Only 20% correctly identified cervix cancer as the most prevalent female cancer in India, while 43% were aware of the ages of occurrence. Additionally, multivariate regression analysis indicated city students were more knowledgeable than those from outside the city.[73]

Wong L P, Wong Y L, Low W Y, Khoo E M, Shuib R (2009), conduct a a qualitative study on Knowledge and awareness of cervical cancer and screening among Malaysian women who have never had a Pap smear. Methods were used In-depth interviews were conducted with 20 Malaysian women aged 21–56 years and who have never had a Pap smear test, with the aim to explore their knowledge and awareness of cervical cancer and its screening. Study Conclude that the findings highlight the importance of emphasizing accurate information about cervical cancer and the purpose of Pap smear screening when designing interventions aimed at improving cervical cancer screening for Malaysian women.[74]

E Hoque & M Hoque (2009) conduct a study on Knowledge and attitude towards cervical cancer among female university students in South Africa .The objectives of this descriptive cross-sectional study were to assess the knowledge of the risk factors associated with, and detection methods of cervical cancer among female undergraduate students at Mangosuthu University of Technology. A total of 389 students were selected by stratified random sampling techniques. Participants' mean age was 20 years (SD=2). Findings suggest low level of knowledge on cervical cancer and its risk factors and detection method among these female university students. The university should thus concentrate on developing policies on health education and promotion, particularly targeting preventable health conditions, eg. Cervical cancer and strategies to prevent transmission of the human papillomavirus.[75]

Lynette Denny (2008) conduct a study on Prevention of cervical cancer, this article reviews the burden of cervical cancer in South Africa and shows that it remains the most common cancer among South African women, particularly women with least access to cervical cancer screening. It explains the rationale behind the South African cervical cancer screening policy, which is to offer all asymptomatic women three free cervical smears in a lifetime, beginning at age 30, 10 years apart. Further, it illustrates that cervical cancer screening offers unique opportunities for prevention at both the primary and secondary levels. The causal association of human papillomavirus infection of the cervix and the possibility for vaccination against the virus is discussed. The history of screening in South Africa and why it has failed to make a major impact to date on the morbidity and mortality of cervical cancer is also discussed. Finally, possible alternative approaches to cervical cytology for the prevention of cervical cancer are briefly reviewed.[76]

Yifru Terefe and Asheber Gaym (2008) conduct a study on Knowledge, attitude and practice of screening for carcinoma of the cervix among reproductive health clients at three teaching hospitals, Addis Ababa, Ethiopia .Objective of this survey was undertaken to elicit information on the knowledge attitude and practice (KAP) of screening for carcinoma of the cervix (Pap smear) among reproductive health (RH) client a at three teaching hospitals in Addis Ababa. Study conclude that the awareness and practice of the screening procedure of cervical cancer (Pap smear) among RH clients in Addis Ababa is very low. There is a need for intensifying health education provision on cervical cancer screening in the city.[77]

Dr. Nseem Mohamed Bakheit, Dr. Amal Ibrahim Bu Haroon,(2004) conduct study on the knowledge, attitude and practice of pap smear among local school teachers in the sharjah district, objective: the purposes of this study was to determine the level of knowledge and attitude of the target population concerning cervical cancer and methods of its early detection, and to address where the

target population would prefer to do the pap smear test and what factors influence women's participation in the screening programme. 350 teachers were participated in the study. Conclusion: Efforts to increase coverage in cervical screening programs needs to be directed towards medical practitioners as well as towards women. Long term education programs should be made available to motivate the female population in the UAE. In addition, training should be supplied to GP's and primary care physicians to encourage optional screening.[78]

M Hinkula, E Pukkala, P Kyyro¨nen, P Laukkanen, P Koskela, J Paavonen, **et al (2004)** conduct population-based study on the risk of cervical cancer and cervical intraepithelial neoplastic among grand multiparous women in Finland, The Finnish Cancer Registry data revealed 220 CC and 178 CIN3 cases among 86 978 GM women. Standardized incidence ratios (SIR) were calculated from the numbers of observed and expected cases. Age under 20 years at first birth increased the risk of CC and CIN3 especially in premenopausal GM women, while increasing parity had no effect. The small relative risks of CC and CIN3 among GM women in our study as compared to studies from other countries can be explained by the exceptionally low prevalence of STIs in Finnish GM women. The observed SIRs between 1.2 and 1.4 should be interpreted to represent increased risk attributable to grand multiparty. The increased incidence of CC and CIN3 among young GM women suggests causal association to HPV 16 and Chlamydia trachomatis infections.[79]

Erika C. Lambert, (2001) conduct a study on College Students' Knowledge of Human Papillomavirus and Effectiveness of a Brief Educational Intervention. The purpose of this study was to evaluate the effectiveness of a brief HPV-focused, educational intervention on college students' knowledge of HPV. Sixty physician's assistant and psychology students were administered a questionnaire. Study conclude that despite the high prevalence and serious complications associated with HPV infection, most college students know very little about HPV. Brief HPV-focused educational interventions, which could be readily implemented in the family physician's office at a routine visit, were found to be effective at improving HPV knowledge, at least in the short term. More HPV education is needed, particularly for young adults. Further studies should be undertaken to evaluate the effectiveness of HPV education on improving safe-sex behaviors.[80]

SUMMARY

As per going through various studies related to cervical cancer among women residing in rural and urban areas. I conclude that women residing in rural areas had less knowledge than the urban women. Some studies are related to cancer screening and HPV vaccination.These studies shows that women residing in rural areas had less awareness related to HPV vaccination and screening technique in rural areas than the urban areas.

CHAPTER III RESEARCH METHODOLOGY

INTRODUCTION

"Research is to see what everybody else has seen, and to think what nobody else has thought.''
(Albert Szent)

Research methodology are the techniques researchers use to structure a study to gather and analyze information relevant to gather and analyze information relevant to research question. The two alternatives paradigm correspond to different methods for developing evidence.[75]

This chapter deals with the description of methodology and different steps which were undertaken for gathering and organizing data for assessing knowledge regarding cervical cancer among women residing in selected rural and urban areas. It includes research design, population, study setting, variable, sample size, development and description of tool, pilot study, data collection method and statistical method to analyze the data.

RESEARCH APPROCH

Research approach involves the mental processes of logical reasoning concerning the existence and properties of phenomena about which more information and new knowledge are sought through a systematically planned investigation. The approach refers to the way in which the researcher plans and constructs in researchprocess.[76]

In view of the nature of problem selected for the study and the objectives to be accomplished, a quantitative approach was used for the present study. This approach was considered to be the most suitable one to conduct the study because it would help the researcher to use observe the difference in the knowledge scores regarding cervical cancer among women residing in selected rural and urban areas.

RESEARCH DESIGN

Research design is the plan, structure, and strategy of investigations of answering the research question is the overall plan or blue print the researchers select to carry-out their study.[77]

Kerlinger, "the design has two basic purposes, to provide answers to research question, and to control variance." Variance is controlled by planning in such a way as to rule out other hypothesis or other intervening variables as causes of the study outcome. The research design consists of all strategy used to find answers to research questions. The design must be both scientifically acceptable and practical enough to be manageable in the process of supplying useful information. Their search design provides an explicit blue print of research activities will be carried out. Its objective is to answer the research question.[58]

In view of the nature of the problem and to accomplish the objectives of the study, Comparative descriptive

research design was chosen for this study. It is used to compare knowledge regarding cervical cancer among women residing in rural and urban areas.

The study design shows that, pretest was given to assess the existing knowledge regarding cervical cancer among women residing in selected rural and urban areas.

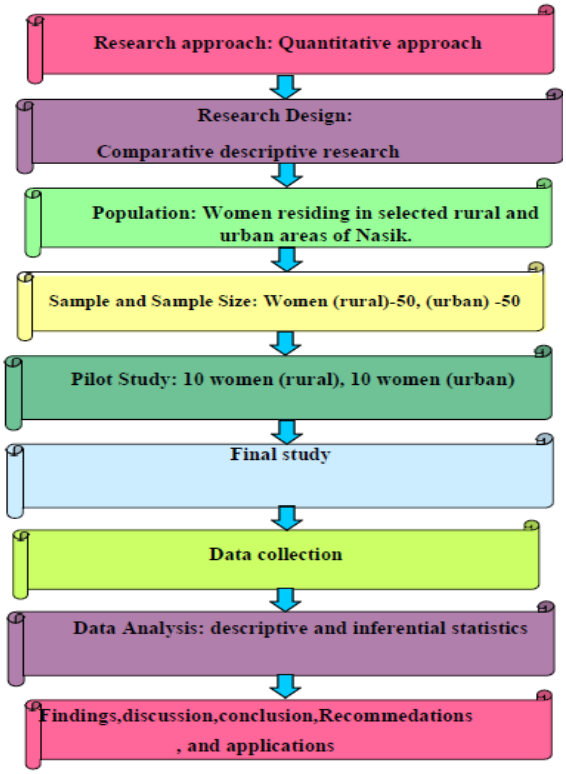

Figure No. 3: Schematic presentation of research methodology.

SETTING OT THE STUDY

Setting of Study refers to "Physical location and condition in which data collection takes place in study"[76]

The proposed study was conducted at selected rural and urban areas of nashik city. The Women residing in rural and urban areas were selected due to following factors:

- To achieve the adequate number of subject's size.
- To seek co-operation extended by the authority and participants. i.e. women.

A comfortable environment was made available for participants and they were given tool as per their convenient time to answer the questions during their regular activity. Participants were allowed to sit and make themselves comfortably by using available place.

VARIABLE OF THE STUDY

Variable is the characteristics or attribute of a person or object that varies within the population under study.[77] Variables used in this study, they are;

Research variables

These are the qualities, properties, or characteristic that are observed or measured in natural setting without manipulating and establishing cause and effect relationship.

In present study, Knowledge regarding cervical cancer among women residing in selected rural and urban areas is the research variable.

Demographic variables

The characteristic and attribute of the study subject are considered as a demographic variable.

1. Age,
2. Education,
3. Occupation,
4. Area of living
5. Type of family,
6. Marital status
7. Age at time of marriage
8. Menstrual history
9. Number of children,
10. Area of living,
11. History related to cervical cancer.
12. Knowledge related to cervical cancer.

POPULATION OF THE STUDY

Population is the aggregation of all the units in which a researcher is interested. In other words population is the set of people or entities to which the result of a research are to be generalized.[77]

In the present context of study, the population consisted of the Women residing in selected rural and urban areas.

Target population
A target population consist of the total number of people or objects which are meeting the designated set of criteria. In other words, it is aggregate of all the cases with certain phenomenon about which the researcher would like to make generalization.[77]

In the present context of study, the target population were the 40 -50 years age group of Women residing in selected rural and urban areas.

Accessible population
The Accessible population refers to the aggregate of cases that conform to designated criteria and area as accessible as subjects a study. That aggregate must meet the criteria for inclusion in the study and that is available to theresearcher.[77]

In the present context of study, the accessible population was the 40 -50 years age group of Women residing in selected rural and urban areas and available at the time of data collection who were meeting inclusion and exclusion criteria listed by researcher.

SAMPLING
Sample
"A sample is a subset of population selected to participate in a research study".[77]

Sample selected for present study comprised of Women residing in rural and urban areas, who fulfilled the sampling criteria.

Sampling Technique
Sampling techniques is defined as the process of selecting a portion of a population to represent the entire population for study in a research.[77]

In this study non-probability convenient sampling technique is used. As it is fast, Inexpensive, easy and the subjects are readily available. Subjects are selected due to their Convenient accessibility and proximity to the researcher.

SAMPLE SIZE
Sample size refers to the number of people who participate in a study.[77]

The sample size selected for this study was 100 women in which 50 from rural area and 50 from urban areas. Women fulfilled the sampling criteria and who were willing to participate in the study.

SAMPLE SELECTION CRITERIA
The sampling or the eligibility criteria is the list of characteristics essential for inclusion or exclusion in the target population. The sample is selected from the accessible population that meets the sampling criteria. The sampling criteria may be narrowly defined to make the sample as homogenous as possible or to control the extraneous variable.

Inclusion criteria: The criteria that specify characteristics that a sample population does have.[76]
1. Women age group of 40-50 years.
2. Women are in selected urban and rural area.
3. Woman present at the time of study.
4. Women who are willing to participate in study.
5. Women who can speak read and write and Marathi and Hindi language.

Exclusion criteria: It is a criteria that involve people, who do not possess the population characteristics.[77]
1. Women below the age of 40 and above the age of 50 years.
2. Women who are not present at the time of the study.
3. Women who are not willing to participate.

THE TIME, PLACE, AND SOURCES OF DATA COLLECTION
Time: 9am- 5pm
Place: Selected rural and urban areas of nashik city.
Source of data collection:
Primary source – Women residing in selected rural and urban areas of nashik city.

TOOL AND TECHNIQUE
Structured knowledge questionnaires to assess the knowledge regarding cervical cancer among women residing rural and urban areas.

The tools were prepared after reviewing there lasted literature, books, journals, articles, reports, published and unpublished research and in consultation with experts and the research guide.

Based on the objectives the tool selected for the study were:

Tool I: Semi structured Questionnaires
The tool consisted of two sections.
Section A: It consists of 10 items regarding demographic variables of women's residing in selected rural and urban areas. Age, Education, Occupation, Marital status, Religion, Area of living, Type of family, Number of child, History of cervical cancer, Knowledge related to cervical cancer.
Section-B: Use of Semi-structured Questionnaire on knowledge related to cervical cancer.
Section I: Knowledge regarding general aspect, definition, types, incidence, causes and risk factor of cervical cancer.
Section II: Knowledge regarding screening, staging, symptoms of cervical cancer.
Section III: Knowledge regarding management, prevention, prognosis.

Scoring
The structure of the questionnaire was developed into only one section to assess the knowledge regarding

cervical cancer among women residing in selected rural and urban areas.

Section B of the questionnaire dealt with objective type (multiple type questions) items. The scores of the Section B were based on worth of correct answers. The correct responses were given'1'and the incorrect response'0'. Knowledge was graded from poor knowledge to excellent knowledge. In the self-structured knowledge questionnaire for each question, 4 options were given out of which 3 were distracters and with only one correct response. For each correct answer, the score given was 1 and for the wrong answer the score was given 0. The highest score was30.

Grading for knowledge score

SCORE	REMARK
0-10	Poor
11-20	Good
21-30	Excellent

TESTING OF TOOL

The structured knowledge questionnaire was done to check the clarity of the items, their feasibility and practicability.

The researcher found the language of the tool was simple and practicable and the average time taken to complete the questionnaire was 20-25 minutes.

FEASIBILITY

Suitability of a study, determined by examining the time and money commitment, the researcher's expertise, availability of subjects, facility and equipment, cooperation of others and study's ethical consideration.

The investigator did not find much difficulty in getting the subjects because accessible population and sample size was 100 in which 50 women from rural areas and 50 from urban areas with respect to the inclusive criteria.

CANTENT VALIDITY

Validity of the tool refers to degree to which an instrument measures what it is intended to measure. Content validity is concerned with scope of coverage of the content area to be measured.

To ensure the content validity, the tool was distributed to 15 experts including oncologist, medical surgical nursing experts, community health nursing, and statistician.

Expert were chosen according to their area of specialty. 13 tools were received after validation from the experts. Valuable suggestions were given.

The experts include;
10 experts - Medical Surgical Nursing, 1 expert - Community Health Nursing. 1 expert -Oncologist doctor, 1 experts - Statistician.

All the necessary changes were done considering the experts suggestions after discussing with the guide.

RELIABILITY

Reliability is the degree of consistency and accuracy with which an instrument measures the attribute for which it is designed to measure.

In this study the reliability of the tool was determined by administering structured questionnaire to 20 sample that is 10 from rural and 10 urban area. Karl Pearson's correlation coefficient formula was used for estimation reliability. Structured questionnaire was said to be reliable if the correlation coefficient was more than 0.8.the conductive coefficient " r" of the structured questionnaire was 0.9 hence the tool was found to be reliable (r = 0.9).

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[\,n\Sigma x^2 - (\Sigma x)^2\,]\,[\,n\Sigma y^2 - (\Sigma y)^2\,]}}$$

Here, r is correlation coefficient
N is number of pairs of scores
$\sum XY$ is sum of the product of paired scores.
$\sum X$ is sum of X scores
$\sum Y$ is sum of y scores
$\sum X^2$ is sum of squared X scores
$\sum Y^2$ is sum of squared Y score.

PILOT STUDY

Pilot study is a small study often carried out to help in preparing a large and more comprehensive investigation. "No matter how carefully you reviewed the background literature and designed the study there is no substitute for a pilot study before the actual data is collected". A pilot study is the preliminary use of a procedure designed to identify problems and permissions before the actual study is conducted.[61]

Therefore, a pilot study was conducted on 10 Women residing in rural areas and 10 women residing in urban areas. This was undertaken in order to ensure the feasibility and the predictability of the research methodology and the tool. Women were selected as per the selection criteria. The researcher gave them questionnaire for assessing the existing knowledge regarding cervical cancer among women residing in selected rural and urban areas.

The collected data was analyzed by using descriptive and inferential statistics. The significant difference between knowledge regarding cervical cancer among women residing in selected Rural and urban areas was found by using paired 'test. The difference found very highly significant (t = 3.511, degree of freedom 18. The p-value is 0.0007963).

The average score of women residing in rural area is less than average score of women residing in urban area (i.e. $\mu 1 < \mu 2$). There is significant difference between the

knowledge regarding cervical cancer among women residing in selected rural and urban area. Actually the knowledge regarding cervical cancer of women residing in urban areas is more than the women residing in rural areas.

After conducting the pilot study, it was found that the study was feasible and effective, the concerned authority and the samples were found to be co-operative, the questionnaire were relevant and the time and cost of the study was within the limit.

METHODS FOR DATA COLLECTION RELEVANT TO OBJECTIVE

Step 1: The researcher will obtain permission from competent authority PHC of the selected urban area and rural area and consent will be taken from participant to conduct the study.

Step 2: Researcher will introduce about self to women residing in rural and urban areas.

Step 3: Researcher will explain objectives of the study to women residing in rural and urban areas.

Step 4: Researcher will select the women those who fulfills the inclusion criteria of the study.

Steps 5: Test will be conducted to assess the knowledge of women residing in rural and urban areas regarding cervical cancer by using semi structured knowledge questionnaire.

PLAN FOR DATA ANALYSIS

- In this study data will be entered into excel sheet and master chart will be prepared.
- The obtained data will be analyzed by using statically techniques like descriptive statics and frequency distribution.
- To compare and find impact of this study, inferential statistics will be used to achieve aim and objectives of the study.
- Inferential statistics like "t" test analysis and co-relation techniques will be used for the study.
- To find out association of pretest knowledge with selected demographic variables, chi square technique will be used.

SUMMARY

This chapter of methodology dealt with research approach, research design, identification of target population, accessible population, sampling technique, sampling size, inclusion and exclusion criteria of subject, tool preparation, feasibility of study, validity and reliability of research tool, pilot study, data collection process and plan for data analysis which helps the researcher in a better way to collect data from subjects so as to makes the study effective.

ANALYSIS AND INTERPRETATION

INTRODUCTION

Analysis and interpretation of data is the most important phase of the research process, which involves the computation of the certain measures along with searching for patterns of relationship that exists among data groups. Data collection is followed by the analysis and interpretation of data, where collected data are analyzed and interpreted in accordance with study objectives. Analysis and interpretation of data includes compilation, editing, coding, classification and presentation of data. Analysis and interpretation of data includes compilation, editing, coding classification and presentation of data.

Based on the title and objectives of the study, collected data has been classified, tabulated, analyzed, interpretation and presentation in terms of statics, table and graph.

PROBLEM STATEMENT

"A comparative study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas"

OBJECTIVES

1. To assess the exiting knowledge regarding cervical cancer among women residing in selected rural areas.
2. To assess the exiting knowledge regarding cervical cancer among women residing in selected urban areas.
3. To compare the knowledge regarding cervical cancer among women residing in selected rural and urban areas.
4. To find out association between knowledge regarding cervical cancer among women residing in selected rural and urban areas with selected demographic variable.

ASSUMPTION

1. There will be same knowledge regarding cervical cancer among women residing in rural and urban areas.
2. There will be difference between knowledge regarding cervical cancer among women residing in rural and urban areas.

ORGANIZATION OF STUDY FINDINGS

The data collected by the researcher during the data collection from 100 women residing in rural and urban areas, in which 50 from rural areas and 50 from urban areas was analyzed as per the objectives of the study and was organized as per following setting:

Section I: Description on demographic data of the women residing in rural and urban areas in terms of frequency and percentage.

Section II: Description on assessment of the knowledge regarding cervical cancer among women residing in rural and urban areas in terms of frequency and percentage.

Section III: Description on comparison of the knowledge regarding cervical cancer among women residing in rural and urban areas frequency and percentage.

Section IV: Description on section of structured questionnaire related to cervical cancer among women residing in rural and urban areas.

Section V: Description on association of knowledge regarding cervical cancer among women residing in selected rural and urban areas with selected demographic variable.

SECTION I
DESCRIPTION ON DEMOGRAPHIC VARIABLES OF THE WOMEN RESIDING IN RURAL AND URBAN AREAS

The section deals with the Analysis of Demographic data of the women residing in rural and urban areas in terms of frequency and percentage. The 100 women selected for the study in which 50 women from rural areas and 50 from urban areas. Data obtain to describe sample demographic data which include age, education occupation, religion, areas of living, type of family, marital status, age at the time of marriage, menstrual history, number of children, history of cervical cancer, knowledge about cervical cancer in terms of frequency and percentage.

Table No. 1: Frequency and Percentage wise classification of women according to their demographic data.

Sr. No.	Variable	Groups	Rural		Urban	
			Frequency	Percentage	Frequency	Percentage
1.	Age	40-45	14	14%	07	07%
		46-50	36	36%	43	43%
2.	Education	Illiterate	05	05%	00	00%
		Up to SSC	38	38%	18	18%
		Up to HSC	06	06%	29	29%
		Graduation	01	01%	03	03%
		Other	00	00%	00	00%
3.	Occupation	House wife	38	38%	34	34%
		Employed	07	07%	10	10%
		Business	02	02%	03	03%
		Laborer	03	03%	03	03%
4.	Religion	Hindu	47	47%	43	43%
		Muslim	01	01%	04	04%
		Cristian	02	02%	03	03%
		Other	00	00%	00	00%
5.	Area of living	Rural	50	50%	00	00%
		Urban	00	00%	50	50%
6.	Type of family	Nuclear	27	27%	19	19%
		Joint	13	13%	19	19%
		Extended	10	10%	12	12%
7.	Marital status	Married	43	43%	45	45%
		Unmarried	00	00%	00	00%
		Divorced	03	03%	02	02%
		Widow	04	04%	03	03%
8.	Age at time of marriage	Less than 20	49	49%	04	04%
		20-30	01	01%	41	41%
		Above 30	00	00%	05	05%
9.	Menstrual history	Regular	10	10%	04	04%
		Irregular	23	23%	23	23%
		Absent	17	17%	23	23%
10.	Number of children	0	43	43%	45	45%
		1	00	00	00	00%
		2	03	03%	02	02%
		Above 3	04	04%	03	03%
11.	History of cervical cancer	Yes	14	14%	21	21%
		No	36	36%	29	29%
12.	Do you have Knowledge of cervical cancer	Yes	14	14%	21	21%
		No	36	36%	29	29%

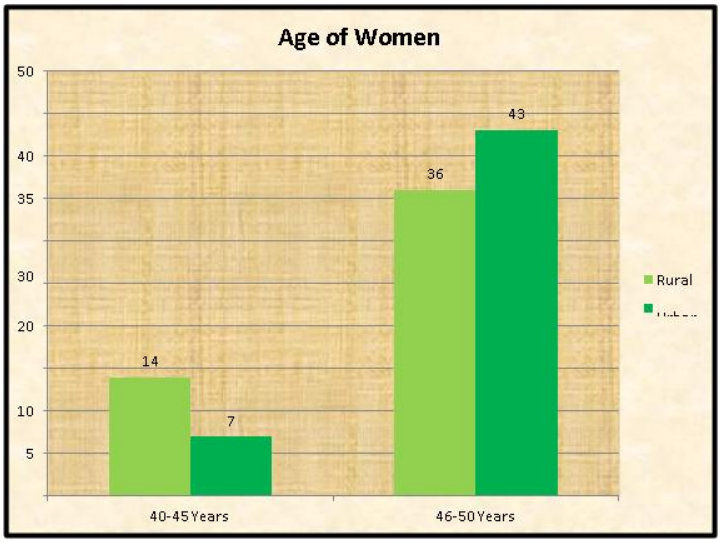

Figure No. (3): Age wise classification of women residing in rural and urban areas.

The graph shows that, 14% and 7% of women between the age group 40-45 years in rural and urban respectively areas, 36% and 43% of women between the age group of 46- 50 years, respectively from rural and urban areas.

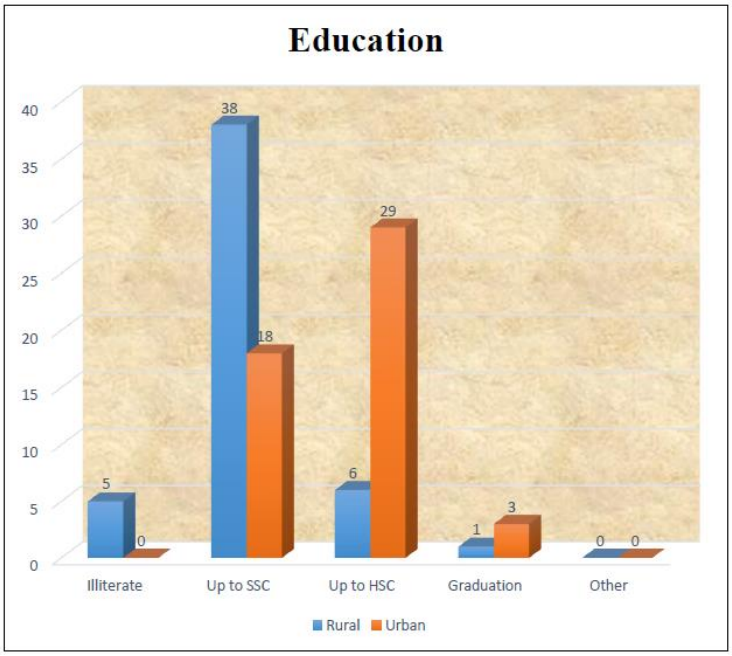

Figure No. (4): Education wise classification of women.

The graph shows that, 5% women are illiterate from rural areas, up to SSC there are 38% and 18% respectively women from rural and urban areas, 6% and 32% are educate up to HSC, and graduation 1% and 3% respectively from rural and urban area.

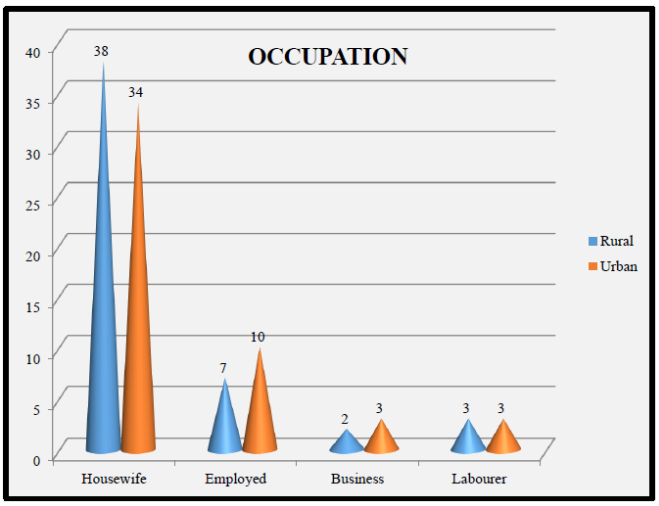

Figure No. (5): Occupation wise classification of women.

Above graph shows that, occupation that is house wife are 38% & 34% from rural and urban areas respectively, employed are 7% and 10%, business women are 2% & and 3%, and laborer are same for rural and urban areas that is 3%.

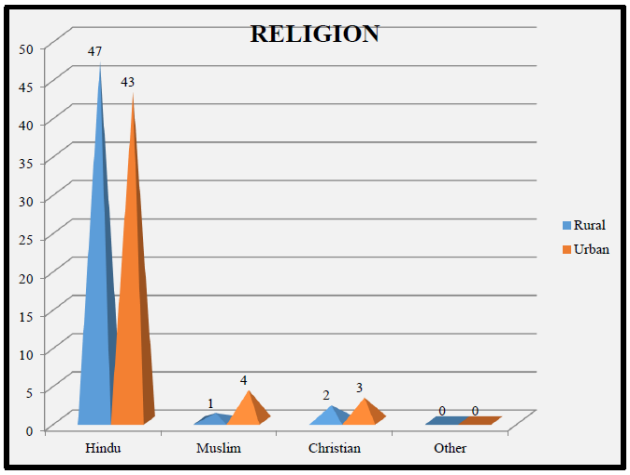

Figure No (6): Religion wise classification of women.

Above graph shows that, Hindu women are large in number that is 47% and 43% from rural and urban areas respectively, Muslim women are 1% and 4%, Christian are 2% & 3% from rural and urban areas.

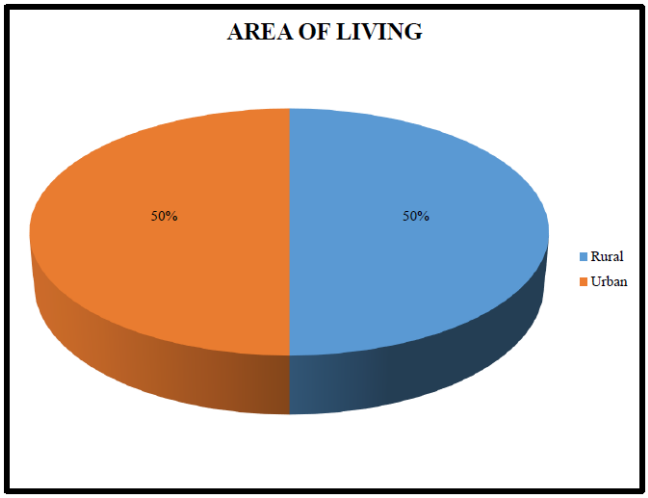

Figure No. (7): Area wise classification of women.

Above pie graph that, 50% women residing in rural areas and 50% women residing in urban areas.

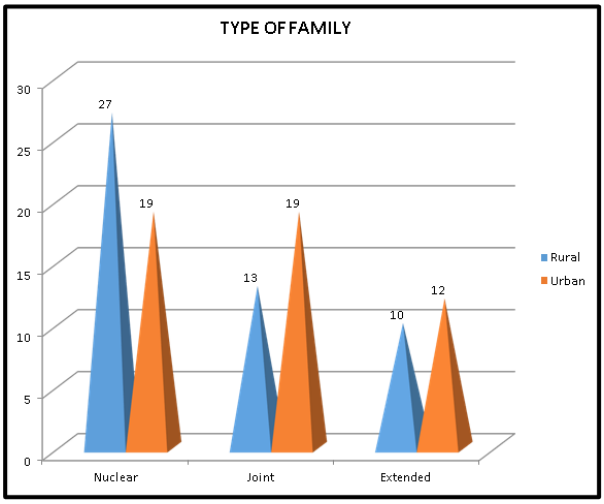

Figure No. (8): Family type wise classification of women.

Above graph shows that, 27% and 19% women residing in rural and urban areas having nuclear family. 13% and 19% have their joint family, and 10% and 12% women having their extended family type.

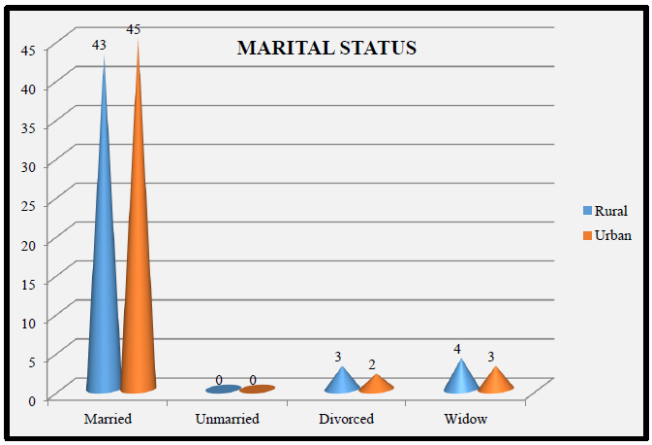

Figure No (9): Marital status of women.

Above graph shows that,43% and 45% from rural and urban areas women are got married, there is no single women are unmarried, divorced women are 3% and 2%, and widow are in rural area 4% and in urban areas 3%.

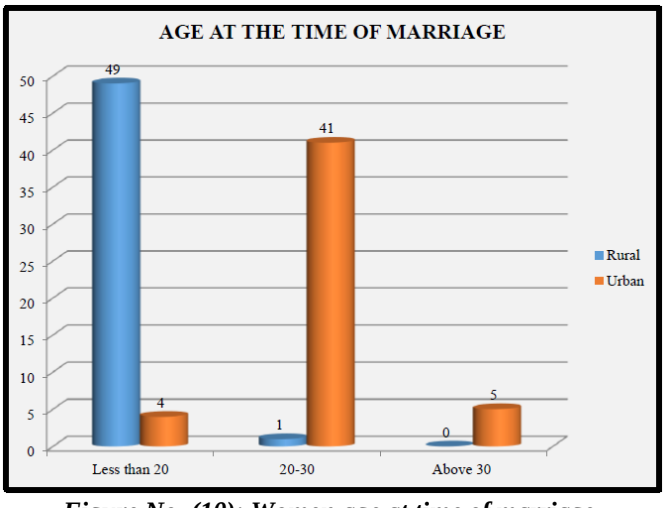

Figure No. (10): Women age at time of marriage.

Above graph shows that, 49% and 4% women residing in rural and urban areas respectively got married at the age less than 20, in between 20 -30 age group there are 1% and 41% women got married, and above 30 there are only 5% women are got married from urban areas.

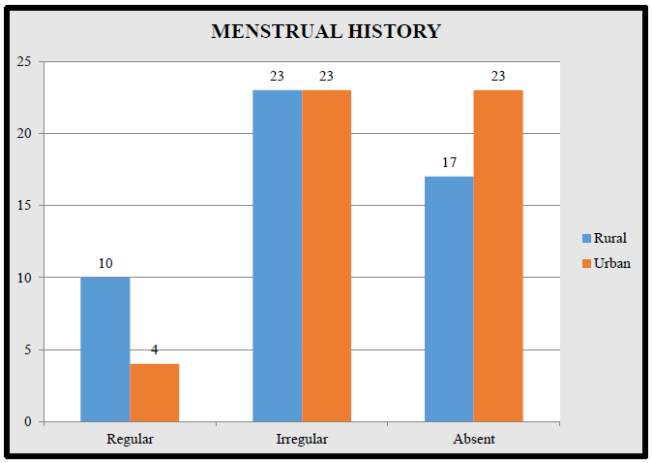

Figure No. (11): Menstrual history of women.

Above graph shows that, there are 10% and 4% women residing in rural and urban areas having regular menstrual cycle, same percentage from rural and urban areas that is 23% having irregular menstrual cycle, and 17% and 23% women having no menstrual cycle that is menopause.

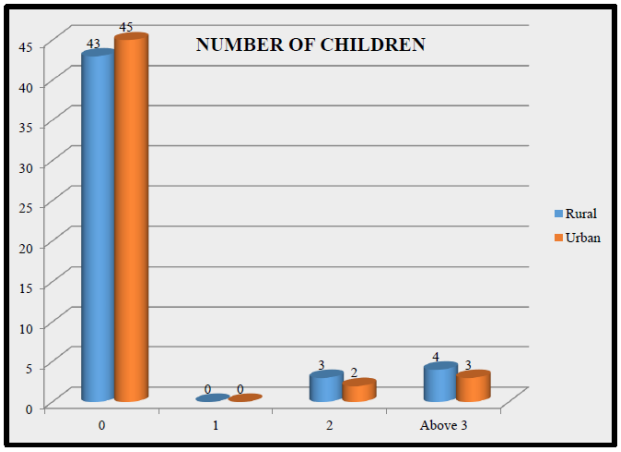

Figure No (12): Classification of women according to their number of children.

Above graph shows that, there is 1% & 2% women residing in rural and urban areas having 1 children, 37% women from rural and urban having 2 children, and above 3 children are 12% and 11% from women residing in rural and urban areas.

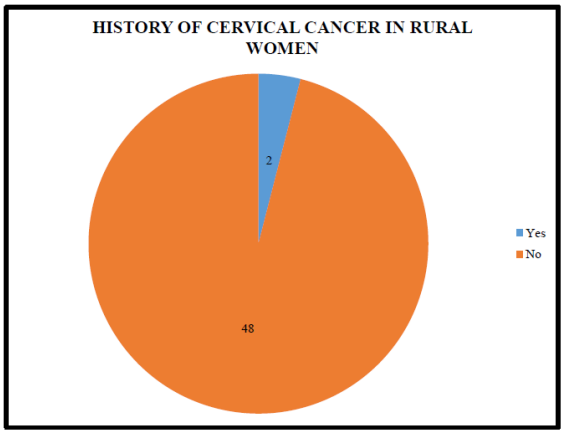

Figure No (13): Classification of women according to having history of cervical cancer.

The graph shows that, in rural area 2% women having history of cervical cancer. And 48% women do not have any history of cervical cancer.

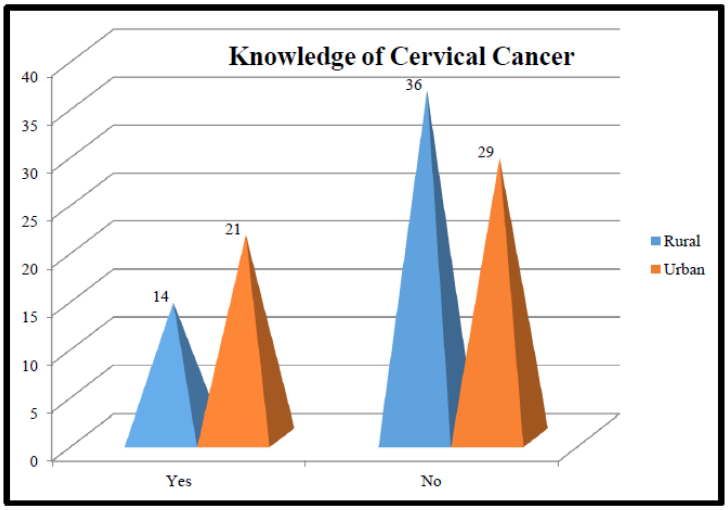

Figure No (14): Classification of women according to knowledge of cervical cancer.

The above figure shows that, 14% women from rural area having knowledge regarding cervical cancer and 21% women from urban area having knowledge.36% rural and 29% urban women don't have knowledge regarding cervical cancer.

SECTION 2
DESCRIPTION OF KNOWLEDGE ASSESSMENT REGARDING CERVICAL CANCER AMONG WOMEN RESIDING IN RURAL AND URBAN AREAS FREQUENCY AND PERCENTAGE

Chapter deals with description of existing knowledge assessment regarding cervical cancer among women residing in rural and urban areas in terms of frequency and percentage.

Table No (2). Frequency and Percentage wise classification of knowledge regarding cervical cancer among women residing in rural areas.

Knowledge	Rural frequency	Rural percentage
Poor	27	27%
Good	23	23%
Excellent	0	00%

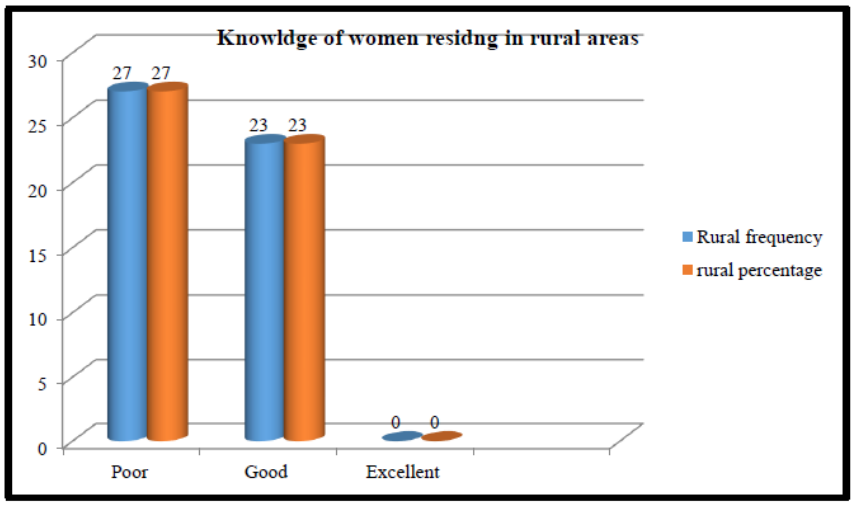

Figure No. 15: Knowledge of women residing in urban areas.

Above table shows that in women residing in rural areas have poor knowledge (27%), good knowledge that is 23% and there is no single women having excellent knowledge regarding cervical cancer.

Table No (3): Frequency and Percentage wise classification of knowledge regarding cervical cancer among women residing in urban areas.

Knowledge	Urban frequency	Urban percentage
Poor	2	02%
Good	46	46%
Excellent	2	02%

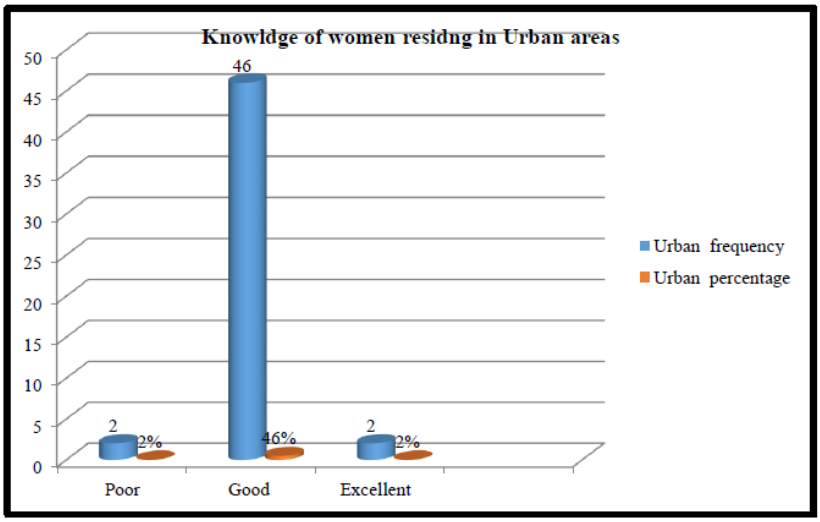

Figure No. 16: knowledge regarding cervical cancer among women residing in urban areas.

Above table shows that in women residing in urban areas have poor knowledge (2%), good knowledge that is 46% and 2% having excellent knowledge.

SECTION 3
COMPARISON OF THE KNOWLEDGE REGARDING CERVICAL CANCER AMONG WOMEN RESIDING IN RURAL AND URBAN AREAS FREQUENCY AND PERCENTAGE

This section deals with significance of knowledge related to cervical cancer among women residing in rural and urban areas. Paired' test was applied for find out significant difference in knowledge among women residing in rural and urban areas.

Paired't' test formula:

$$t = \frac{\sum d}{\sqrt{n(\sum d^2) - (\sum d)^2 / n-1}}$$

Where, ∑d sum of differences, n number of samples

Table No (4). Knowledge regarding cervical cancer among women residing in rural and urban areas in mean, Percentage.
N=100

Knowledge of women	Mean	Percentage	SD	T value	P value
Rural areas	9.38	38%	1.80	16.069*	0.0685
Urban areas	15.52	62%	2.42		

* - significant, ** - not significant (t (99) =16.06, table value t (99) =0.06, p<0.05)

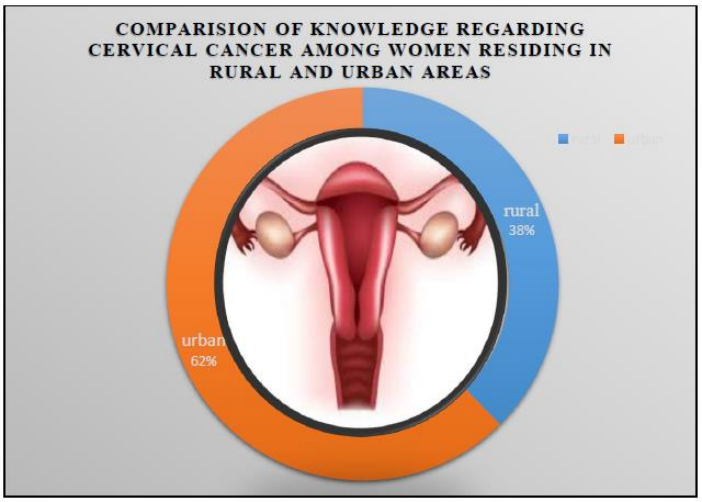

Figure no 17. Knowledge regarding cervical cancer among women residing in rural and urban areas.

Above table shows that women residing in rural areas have less knowledge than the urban areas that is 38 % in rural areas and 62% in urban areas. Here p value is 0.06 which less than table value so there is significant.

SECTION IV
DISTRIBUTION OF DATA RELATED TO SECTION OF STRUCTURED QUESTIONNAIRE

Chapter deals with the Analysis, distribution and interpretation of data related to section of structured questionnaire related to cervical cancer among women residing in rural and urban areas.

Table No. 5: Analysis, distribution and interpretation of data related to section of structured questionnaire.

Sr no	Section	Rural percentage	Urban percentage
I	General aspect, incidence, causes & risk factors of cervical cancer	34%	57%
II	Screening, staging, symptoms of cervical cancer	34%	51%
III	Prevention, management, prognosis, complication	25%	46%

Above table no shows that Analysis, distribution and interpretation of data related to section of structured questionnaire related to cervical cancer among women residing in rural and urban areas. In section I average score is 34% and 57% from women residing in rural and urban areas respectively. Section II the average score from rural areas is 34% and 51% from urban areas. Section III that is last section of the questionnaire which include 25% average score from rural areas and 46% from urban areas.

ASSOCIATION BETWEEN KNOWLEDGE REGARDING CERVICAL CANCER AMONG WOMEN RESIDING IN SELECTED RURAL AND URBAN AREAS WITH SELECTED DEMOGRAPHIC VARIABLE

This section deals with analysis of data related to the association of knowledge regarding cervical cancer among women residing in rural and urban areas with selected demographic variables.

Table No. (6): Association of test knowledge regardingcervical cancer among women residing in rural and urban areas with their selected demographic variable.

n=100

Demographic variable	Knowledge				Chi square X^2	Df	T value	P Value	Significance
	Satisfactory + poor		Good + Excellent						
	Frequency	Percentage	Frequency	Percentage					
Age(of women)									
40-45 years	19	19%	02	02%	4.501*	1	3.84	0.033	**S**
45-50 years	53	53%	26	26%					
Marital status									
Married	62	62%	25	25%	2.362	3	7.82	0.907	NS
Unmarried	00	00%	00	00%					
Divorced	05	05%	00	00%					
Widow	05	05%	03	03%					
Education									
Illiterate	05	05%	00	00%	21.65*	4	9.49	0.0002	**S**

UP to SSC	47	47%	6	6%					
Up to HSC	18	18%	20	20%					
Graduation	02	02%	02	02%					
Other	00	00%	00	00%					

Demographic variable	Knowledge				Chi square X^2	df	T Value	P value	Significant
	Poor + Satisfactory		Average + Good						
	Frequency	Percentage	Frequency	Percentage					
Area of living									
Rural	19%	19%	02	02%	4.501*	1	3.84	0.033	**S**
Urban	53	53%	26	26%					
Occupation									
House wife	52	52%	19	19%	0.551	3	7.82	0.907	NS
Employed	12	12%	06	06%					
Business	12	12%	01	01%					
Laborer	04	04%	02	02%					
Age at time of marriage									
Less than 20	15	15%	54	54%	5.751	2	5.99	0.056	NS
20-30	12	12%	14	14%					
Above 30	01	01%	4	4%					
Menstrual history									
Regular	1	1%	13	13%	4.895	2	5.99	0.0865	NS
Irregular	12	12%	34	34%					
Absent	15	15%	25	25%					

**** = Not significant * = Significant**

The chi square test was conducted to test the association between the pretest knowledge score with selected demographic variables.

1. **Age** - The chi square test statics value of the association between ages with knowledge was 4.501. the p value of the test with the 1 degree of freedom was 0.033. Here the p value of the test was less than 0.05 shows significant association of the age with the knowledge score of women residing in selected rural and urban areas.
2. **Marital status -** The chi square test statics value of the association between ages with knowledge was 2.362. the p value of the test with the 3 degree of freedom was 0.907.

Here the p value of the test was more than 0.05 shows no significant association of the marital status with the knowledge score of women residing in selected rural and urban areas.

3. **Education -**The chi square test statics value of the association between ages with knowledge was 21.65 the p value of the test with the 4 degree of freedom was 0.002. Here the p value of the test was less than 0.05 shows significant association of the education with the knowledge score of women residing in selected rural and urban areas.
4. **Area of living**- The chi square test statics value of the association between ages with knowledge was 4.501 the p value of the test with the 1 degree of freedom was 0.033.

Here the p value of the test was less than 0.05 shows significant association of the area of living with the knowledge score of women residing in selected rural and urban areas.

5. **Occupation -**The chi square test statics value of the association between ages with knowledge was 0.511 the p value of the test with the 3 degree of freedom was 0.907. Here the p value of the test was more than 0.05 shows no significant association of the occupation with the knowledge score of women residing in selected rural and urban areas.
6. **Age at time of marriage-** The chi square test statics value of the association between ages with knowledge was 5.751 the p value of the test with the 2 degree of freedom was 0.056.

Here the p value of the test was equal to 0.05 shows no significant association of the age at time of marriage with the knowledge score of women residing in selected rural and urban areas.

7. **Menstrual history** -The chi square test statics value of the association between ages with knowledge was 4.895 the p value of the test with the 2 degree of freedom was 0.0856

Here the p value of the test was more than 0.05 shows no significant association of the menstrual history with the knowledge score of women residing in selected rural and urban areas.

So there is significant association of knowledge score with age, areas of living, education.

SUMMARY

The chapter dealt with analysis and interpretation of the data collected for the study. The analysis presents that Knowledge regarding cervical cancer among women residing in selected rural and urban areas. Knowledge of women residing in rural areas have less knowledge than women residing in urban areas. There was significant association between selected demographic variable such as age and area of living and education with knowledge score women residing in rural and urban areas.

FINDINGS, DISCUSSION, SUMMARY, CONCLUSION, IMPLICATION, AND RECOMMENDATIONS

INTRODUCTION

This chapter deals with the major findings of the study and reviews of them in relation to the findings of the study. The aim of this comparative study was to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas.

STATEMENT OF THE PROBLEM

"A comparative study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas"

OBJECTIVES

1. To assess the exiting knowledge regarding cervical cancer among women residing in selected rural areas.
2. To assess the exiting knowledge regarding cervical cancer among women residing in selected urban areas.
3. To compare the knowledge regarding cervical cancer among women residing in selected rural and urban areas.
4. To find out association between knowledge regarding cervical cancer among women residing in selected rural and urban areas with selected demographic variable.

ASSUMPTION

1. There will be same knowledge regarding cervical cancer among women residing in rural and urban areas.
2. There will be difference between knowledge regarding cervical cancer among women residing in rural and urban areas.

MAJOR FINDINGS OF THE STUDY

SECTION I: Description on demographic data of the subjects in frequency and percentage

- Majority of the women between the age group of 40-45 was 14% from rural areas and 7% from urban areas. And between the age group of 46-50 were 36% from rural areas and 43 % from urban areas. The large number from age group between 46-50 years old.
- Regarding education point of view most of women is educated up to SSC was 38% from rural areas and 18% from urban areas, up to HSC there are 6% women residing in rural areas and 32% women residing in urban areas. Women educated till graduation are less in number that is 1% from rural areas and 3% urban areas. and main factor is 5% women from rural areas was illiterate but they are able to read and write.
- There are majority of women are house wife from both the areas that is 38% and 34% from rural and urban areas respectively. Employed women from rural areas is 7% from rural and 10% from urban areas. Only 2% and 3% women having their own business. And same number of laborer women are there in rural and urban areas that is 3%.
- Majority of women were having Hindu that is 47% from rural and 43% urban areas. Muslim and Cristian women are less in number from both rural and urban areas.
- 50% women residing in rural areas and 50% of women residing in urban areas.
- Majority of women was in nuclear family that is 27% and 19% from rural and urban areas respectively. And other was in joint and extended family that is 13% (rural) 19% (urban) and 10% (rural) and 12% (urban) areas.
- Most of women are married that is 43% and 45% from rural and urban areas.
- Majority of women got married at the age less than 20 years that is 49% from rural areas and 4% in urban areas. more in number that is 41% women got married at the age between the 20-30 years from urban areas.
- 17% and 23% women were in menopause that is absent of menstrual cycle from rural and urban areas respectively. And same number of women that is 23% from both the areas rural and urban were having irregular menstrual history.
- Majority of Women having 2 children that is 37% from each rural and urban areas.
- Major finding is only one women residing in rural areas having history of cervical cancer out of 100 sample. 99% of women are healthy.

SECTION II: description on Assessment of the Knowledge regarding cervical cancer among women residing in rural and urban areas

- Women residing in rural areas have poor knowledge regarding cervical cancer that is 27%.same women having good knowledge score is 23%.there is no single women having excellent knowledge score.
- Women residing in urban areas having good knowledge that is 46% and 2% women having excellent knowledge and only 2% having poor knowledge regarding cervical cancer.

SECTION III: description on comparison of knowledge regarding cervical cancer among women residing in rural and urban areas.

- Mean score of knowledge regarding cervical cancer

among rural areas is 9.38 and 15.52 is from urban areas. And in percentage 38% knowledge from women residing in rural areas and 62% of knowledge from women residing in urban areas.

- That means women residing in rural areas having less knowledge regarding cervical cancer than knowledge of women residing in urban areas.
- Women residing in urban areas have greater knowledge than women from rural areas.

SECTION IV: description on section of structured questionnaire related to cervical cancer among women residing in rural and urban areas

Analysis, distribution and interpretation of data related to section of structured questionnaire related to cervical cancer among women residing in rural and urban areas. In section I average score is 34% and 57% from women residing in rural and urban areas respectively. Section II the average score from rural areas is 34% and 51% from urban areas. Section III that is last section of the questionnaire which include 25% average score from rural areas and 46% from urban areas.

Hence, there is difference in between section of the rural and urban areas that is women from urban areas having better percentage than the rural areas.

SECTION V: description on association between knowledge regarding cervical cancer among women residing in selected rural and urban areas with selected demographic variable

The chi square test was conducted to test the association between the pretest knowledge score with selected demographic variables.

Age - The chi square test statics value of the association between ages with knowledge was 4.501. the p value of the test with the 1 degree of freedom was 0.033. Here the p value of the test was less than 0.05 shows significant association of the age with the knowledge score of women residing in selected rural and urban areas. **Marital status -** The chi square test statics value of the association between ages with knowledge was 2.362. the p value of the test with the 3 degree of freedom was 0.907.

Here the p value of the test was more than 0.05 shows no significant association of the marital status with the knowledge score of women residing in selected rural and urban areas.

Education -The chi square test statics value of the association between ages with knowledge was 21.65 the p value of the test with the 4 degree of freedom was 0.002.

Here the p value of the test was less than 0.05 shows significant association of the education with the knowledge score of women residing in selected rural and urban areas.

Area of living- The chi square test statics value of the association between ages with knowledge was 4.501the p value of the test with the 1 degree of freedom was 0.033.

Here the p value of the test was less than 0.05 shows significant association of the area of living with the knowledge score of women residing in selected rural and urban areas.

Occupation -The chi square test statics value of the association between ages with knowledge was 0.511 the p value of the test with the 3 degree of freedom was 0.907. Here the p value of the test was more than 0.05 shows no significant association of the occupation with the knowledge score of women residing in selected rural and urban areas.

Age at time of marriage- The chi square test statics value of the association between ages with knowledge was 5.751 the p value of the test with the 2 degree of freedom was 0.056.

Here the p value of the test was equal to 0.05 shows no significant association of the age at time of marriage with the knowledge score of women residing in selected rural and urban areas.

Menstrual history -The chi square test statics value of the association between ages with knowledge was 4.895 the p value of the test with the 2 degree of freedom was 0.0856.

Here the p value of the test was more than 0.05 shows no significant association of the menstrual history with the knowledge score of women residing in selected rural and urban areas.

So there is significant association of knowledge score with age, areas of living, education.

DISCCUSION

A study conducted in Vishakhapatnam related to knowledge of cervical cancer among rural and urban women & reported that Around 41.4% of the population were aware of cervical cancer as a type of cancer affecting women; only 10% of the population have knowledge on the screening of cervical cancer. Lack of awareness and knowledge on cervical cancer is noted more in rural population when compared to urban. Specific knowledge on cervical cancer screening is noticed as a critical object in determining whether a woman to undergo screening and study concludes that a strategy involving Government and NGO action, conducting awareness and screening programs is necessary to minimize the occurrence of cervical cancer in this region. Awareness has to be created among the rural women on this.

The knowledge of women is very poor resulting most of the time mortality is high & quality of life is poor due to

unnoticed & undiagnosed cases of cervical cancer**.** Women are the back bone of the every family in rural and urban part of the India & shouldering major responsibilities in family. Everyone assumed that rural women have poor knowledge regarding disease than the urban women, there is need to do comparative study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas.

In the present study, researcher thought to do comparative study to assess the knowledge regarding cervical cancer among women residing in rural and urban areas. A comparative descriptive research design was used. Total 100 women were selected by non-probability convenient sampling technique as per the inclusion criteria. Structured Knowledge Questionnaires was used as an instrument which consisted of two sections. Section A consisted of 10 items regarding demographic variable and section B Consisted of questionnaires related to cervical cancer in which there are 3 subsection in section B, section I contain knowledge regarding general aspect, incidence, causes and risk factor. Section II consist of screening, staging, and symptoms of cervical cancer, section III includes prevention, management, prognosis complication. Prior to the collection of data researcher was obtained permission from competent authority of the selected rural and urban area and informed consent was taken from all the participants. Test was conducted to assess the knowledge regarding cervical cancer among women residing in rural and urban areas using structured knowledge questionnaire**.**

The findings of the study revealed that highest percentage that,

- Women residing in rural areas have poor knowledge regarding cervical cancer that is 27%. same women having good knowledge score is 23%. there is no single women having excellent knowledge score.
- Women residing in urban areas having good knowledge that is 46% and 2% women having excellent knowledge sand only 2% having poor knowledge regarding cervical cancer.
- When comparison between the women residing in rural areas and urban areas it was found that , Mean score of knowledge regarding cervical cancer among rural areas is 9.38 and 15.52 is from urban areas. And in percentage 38% knowledge from women residing in rural areas and 62% of knowledge from women residing in urban areas.
- That means women residing in rural areas having less knowledge regarding cervical cancer than knowledge of women residing in urban areas.
- The obtained chi- square value that is 4.501 of knowledge scores with selected demographic variable that is age and area of living were found significant at 5% level of significance at df=1.
- There was no significant association of knowledge scores with demographic variables that is Educational, Occupation, marital status, age at time of marriage, menstrual history. Only age and area of living found significant association with knowledge score.
- Women residing in urban areas have greater knowledge than women from rural areas.

SUMMARY

The purpose of the present comparative study to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas.

The comparative descriptive research design was used for the study, which consisted of 100 samples in which 50 from rural areas and 50 from urban areas that were selected on the basis of the Non Probability Convenient sampling technique. The content validity and reliability of the tool was done, which suggested that tool was reliable. The pilot study was conducted on 20 samples in which 10 from rural areas and 10 from urban areas and the feasibility of the study was established. It was found that the tool had no major flaws and was used for the final study with the changes as per the experts based on the objectives and the assumptions. The collected data was analyzed using descriptive and inferential statistics. Analysis of data was done in accordance with the objectives. The data analysis was done by calculating mean, frequency and its % and 'p' value. The studies found that majority of women from rural areas have poor knowledge than the women residing in urban areas.

This chapter has brought out the various implication of this study and also has provided suggestions for the future studies. Studies of this kind should be ongoing process to make awareness regarding cervical cancer among women residing in rural and urban areas.

CONCLUSION

From the study findings it is concluded that the women residing in rural areas have poor knowledge regarding cervical cancer than the women residing in urban areas.

NURSING IMPLICATIONS

Nursing education

The nursing curriculum should consist of knowledge related health information using different methods of teaching. Nursing students should be made aware of their role in health promotion and disease prevention in present and future year, which may help in achieving goal of health for all.

Nurses have an important role in cancer prevention and health education. Therefore, knowledge and awareness of cervical cancer are the most important for general women, who are educated by nurses. In the literature, some studies have shown that nurses who knew very well about symptoms, risk factors, and screening methods of cancer were more likely to use cervical cancer screening methods.

Nursing students should be made aware of the

importance of educating the women regarding cervical cancer. Nursing at post-Graduate level have to develop their skill in the comparing knowledge among community level. Improved and newer techniques have to be used for motivating women to do cervical cancer screening and vaccination.

Nursing Practice

Nursing is a dynamic process, which involves quality based on scientific body of knowledge and dissemination of research knowledge into practice. Nursing professionals find the health promotion very relevant because it applies across the span and is useful in variety of settings. Several implication can be drawn from the present study for nursing practice. Generally women residing in rural areas do not aware about cervical cancer knowledge, screening, prevention so that comparing their knowledge with women from urban areas, so they can realized they are very less knowledge than urban women.

The extended and expanded roles of professional nurses emphasize more about the preventing and promote aspects of the health.

Health information can be important through various methods like Information Booklet, lecture, mass media, pamphlet, planned teaching program me etc. Nurses have to position themselves in all areas of community. Hence, nurses should take keen interest in preparing different teaching strategies suitable for the community.

Nursing Administration

The nurse administrators should take active and pivotal role in developing teaching modules, cost effective educational materials and policies for initiation of adolescent health services as well as adolescent guidance and counselling clinics.

The nurse as an administrator should plan and organize educational programs for nursing personnel and motivating the min conducting cervical cancer prevention to the community women.

Nursing Research

More qualitative and quantitative research studies can be undertaken in the area of women. In the field of research the present study help subtilize the findings and disseminate the knowledge in the field of work. Research studies can be done to create an awareness among women residing in rural areas and urban area or on adolescent girls can create awareness about vaccine availability.

LIMITATIONS

The study was confined to specific geographical area, which imposes limits to any larger generalization.

1. The finding of the study was restricted to the respondents under study, only from selected community area.
2. The data was collected from 100 samples to find out the knowledge. It could be done on more samples for the larger generalization.
3. Study was restricted to women.

RECOMMENDATIONS

The present study findings revealed that women residing in rural areas have poor knowledge regarding cervical cancer than the women residing in urban areas the so the following recommendations were framed for future study:

A similar study can be done like comparative study to assess the effectiveness of structured teaching program regarding cervical cancer or self-instructional module, information booklet related to HPV Vaccine among women residing in rural and urban areas.

This study can be replicated on larger sample to generalize the findings.

1. A study can be conducted compare the knowledge level among adolescent girls residing in rural and urban areas.
2. A follow-up comparative study could be carried out to find out the effectiveness of structured teaching program in terms of retention of knowledge among women or adolescent girls.

SUMMARY

Chapter deals with the findings, discussion, summary, conclusion, implication, and recommendations of analyzed data in chapter IV. Chapter include major findings of the study and reviews of them in relation to the findings of the study. Discussion of major finding were done with another same study. Nursing implication was explained, limitation and recommendation were stated in this chapter. Summary and conclusion related to study finding.

The aim of this comparative study was to assess the knowledge regarding cervical cancer among women residing in selected rural and urban areas and which is fulfill in this chapter.