



## A study to assess the level of anxiety & depression and its associated risk factors on cervical cancer among patients admitted in SMCH

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### Abstract

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, effective screening and treatment programs. So the present study is done to assess the level of anxiety & depression and its associated risk factors on cervical cancer among patients admitted in SMCH.

**Methods:** A descriptive research design was done to assess the level of anxiety & depression and its associated risk factors on cervical cancer among patients admitted in SMCH. 100 samples are included in our study. Convenience sampling techniques method was used in selecting the samples. Self-Structured questionnaire and structured questionnaire, were used to collect data.

**Result:** The level of anxiety are majority of people having Moderate anxiety-63% Mild anxiety-9 % Severe anxiety-28% that majority of people having moderate depression 58(58%),severe depression 26(26%)and 16 (16%)having mild depression.

**Conclusion:** The study concludes that there is moderate anxiety and moderate depression level among cervical cancer among patients admitted in SMCH.

**Keywords:** anxiety level, cervical cancer, depression

### Introduction

Cervical cancer has become the second most commonly known cause of cancer-related deaths in India. On an average, there are about 122,000 new cases of cervical cancer detected annually in our country. Out of which 67,500 women succumb to the disease due to lack of knowledge about it. Human papilloma virus (HPV) is found in about 99% of cervical cancers. HPV infections do not show any symptoms in most of the cases. While there are different types of HPV, some high-risk types are largely associated with cervical cancer and can go undetected until the development of abnormal cells. Thus, this makes it important for women to get tested on a regular basis. Cervical cancer can affect women of any age. The average age of diagnosis for precancerous changes of the cervix is 29 years, and for invasive carcinoma is 47 years, according to several reports. Though it's rare for women to develop cervical cancer in their 20s, but as they say, prevention is better than cure. That's why going for regular screening from the age of 21 is extremely important. Even if you're not sexually active yet, or aren't experiencing any symptoms of HPV or cervical cancer, you should get tested – at least every three years. It is the same for older women. Pap smears and HPV tests should be done, even after menopause, as your risk for cervical cancer doesn't decrease with age cervical cancer is most often diagnosed between the ages of 35 and 44. About 15% of cervical cancers are diagnosed in women over age 65. Few women under the age of 20 are diagnosed with cervical cancer. An estimated 13,170 women in the United States will be diagnosed with invasive cervical cancer. Incidence rates for the disease

dropped by more than 50% between 1975 and 2015 due to an increase in screening, which can find cervical changes before they turn cancerous.

It is estimated that 4,250 deaths from the disease will occur this year. The death rate dropped by around 50% between 1975 and 2016, partly because the increase in screening resulted in earlier detection of cervical cancer.

The 5-year survival rate tells you what percent of women live at least 5 years after the cancer is found. Percent means how many out of 100. The 5-year survival rate for all women with cervical cancer is 66%. However, survival rates can vary by factors such as race, ethnicity, and age. For white women, the 5-year survival rates are 69%, and for black women, the 5-year survival rate is 56%. For white women under age 50, the 5-year survival rate is 78%. For black women age 50 and older, the 5-year survival rate is 47%. Survival rates depend on many factors, including the stage of cervical cancer that is diagnosed. When detected at an early stage, the 5-year survival rate for women with invasive cervical cancer is 92%. About 45% of women with cervical cancer are diagnosed at an early stage. If cervical cancer has spread to surrounding tissues or organs and/or the regional lymph nodes, the 5-year survival rate is 56%. If the cancer has spread to a distant part of the body, the 5-year survival rate is 17%. Cervical cancer is a major public health problem that continues to have a huge impact on women worldwide. It is the fourth most common cancer in women, and the seventh overall, with an estimated 5, 28,000 new cases in 2012. A large majority (around 85%) of the global burden occurs in the less developed regions, where it accounts for almost 12% of all cancers in females.

There were an estimated 2, 66,000 deaths from cervical cancer worldwide in 2012, accounting for 7.5% of all cancer deaths among females. In India, there were 1, 23,000 cancer cases and 67,000 deaths due to cervical cancer in 2012. Along with human papilloma virus, there are various risk factors associated with cervical cancer such as early age at marriage, early age at first sexual intercourse, multiple sexual partners, high parity, tobacco use, use of oral contraceptives, and immune suppression. Prevalence of cancer is known to vary from region to region and is affected by socioeconomic changes. The burden of cervical cancer is high in developing countries, where screening programs are not well established or are minimally effective. Study of the socio demographic profile is the first step in planning screening and control measures Anxiety is a frequent response to the series of cancer diagnosis, treatment, remission, and relapse. The prevalence of a high level of anxiety in cancer patients varies from 10% to 50%. Reducing the patient's anxiety level is important because anxiety may lead to emotional distress and functional disturbances. Receiving a diagnosis of gynecologic cancer generates various psychosocial and emotional responses: anxiety, denial, passivity, annihilation of long-term plans and personal responsibilities, worries of the near future and death. In gynecologic cancer, sexuality and representation of femininity alterations can seriously complicate the psychic representation of disease and impair family life Inspired by the extensive literature on this subject, as well as a series of contradictory data and a number of methodological flaws of previous studies, we undertook this research with the goal of observing the influence of surgery and radiotherapy on the degree of anxiety before and after surgery, and to determine factors significantly related to a poor outcome after the psycho physiological outcome after the operation. The aim of the present study was to test the difference in the severity and risk factors for anxiety in female patients with cervical cancer: Group 1 underwent surgery combined with radiotherapy and chemotherapy, and Group 2 underwent only radiotherapy and chemotherapy Carcinoma of the cervix is one of the most common cancers among women in the world. It is most common in developing countries. Cervical cancer progresses slowly in the body. In 2008, 275,000 deaths occurred due to cervical cancer. Of which, 88% occurred in developing countries.

**Objectives**

1. To assess the demographic variable among cervical cancer patients at SMCH
2. To assess the level of anxiety among cervical cancer patients at SMCH
3. To assess the level of depression among cervical cancer patients at SMCH
4. To assess the risk factors of cervical cancer among cervical cancer patients at SMCH
5. To determine the association between level of anxiety with demographic variable among cervical cancer patients at SMCH

**Material and methods**

A sample of 100 cervical cancer patients are selected by Convenience sampling techniques. The descriptive cross sectional study was conducted during a six months period. Data collection was conducted in SMCH. After getting permission from the head of the

hospital. Demographic variable consist of age, socio economic status, habit, employment and marital status. Self-structured questionnaire and structured questionnaire are used to collect data the study investigators explained to the cervical cancer patients about the study's objectives, rational and requirement of consent to participate in the study. The investigators then provided instructions for filling the questionnaire, and then guided the patients. Understanding of each question was checked by asking the patients to repeat the meaning. During the filling of questionnaires, the investigators helped the patients throughout and helped simplifying the meaning of each question, clarifying doubts and checking for completeness of filling up the questionnaire Chi- square test was used to test the association between categorical variables.  $P < 0.05$  was taken as statistically significant

**Results**

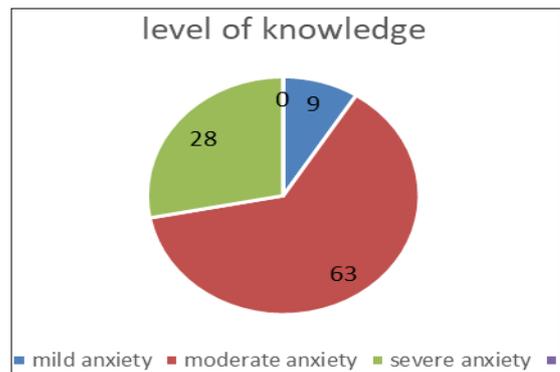
Majority of the people (95%) are married and (5%) were unmarried. Most of them are age group of 51-60 years and 60 above32 (32%) and most of them in middle class40 (40%) and most of them are house wife 50(50%) majority of the people had moderate anxiety 63(63%) and 28% of severe anxiety and 9% are mild anxiety among cervical cancer patients. Majority of people having moderate depression 58(58%), severe depression 26(26%) and 16 (16%)having mild depression. risk factors of people (67)using tobacco, people (69)having history of cervical cancer, people having auto immune disorder, people(63) have used intra uterine devices, people (82)had multiple full term pregnancy, people(57)had full term pregnancy before 17 years of age, and majority of people (82)having abnormal vaginal bleeding

**Table 1:** Frequency and percentage distribution of the level of anxiety among cervical cancer patients at SMCH

Level of knowledge	Frequency	Percentage
Mild anxiety	9	9%
Moderate anxiety	63	63%
Severe anxiety	28	28%
Total	100	100%

Table II: Showed that majority of the people had moderate anxiety 63(63%) and 28% of severe anxiety and 9% are mild anxiety among cervical cancer patients

Fig 1: Figure shows the Frequency and percentage distribution of the level of anxiety among cervical cancer patients at SMCH



**Fig 1:** Figure Showed that majority of the people had moderate anxiety 63(63%) and 28% of severe anxiety and 9% are mild anxiety among cervical cancer patients

**Table 2:** The mean and standard deviation for level of anxiety among cervical cancer patients at SMCH

Knowledge on management of snake bite among rural people	Frequency
Mean deviation	21.82
Standard deviation	17.90

Table II: showed that mean deviation (21.82) for level of anxiety among cervical cancer patients at SMCH and the standard deviation (17.90) for level of anxiety among cervical cancer patients at SMCH

**Discussion**

The present study assess the level of anxiety & depression and its associated risk factors on cervical cancer among patients admitted in SMCH. The results shows approximately that out of 100 samples, majority of the people had moderate anxiety 63(63%) and 28% of severe anxiety and 9% are mild anxiety among cervical cancer patients.

Which is similar to findings reported by SHYU IL 2019 this study enrolled patients with newly diagnosed cervical cancer from the National Health Insurance Research Database in Taiwan. From a population of 21,400,826 residents, each cervical cancer patient was matched with one subject without cervical cancer according to sex, age, and co morbidities with the same diagnostic index. The International Classification of Diseases, Ninth Revision, code 180.9 was used to identify patients with cervical cancer, and 296.0X–296.1X, 296.4X–296.8X, 296.2X–296.3X, 300.4, and 311.X codes were used to identify those with depressive disorders. In total, 19,316 newly diagnosed cervical cancer patients were enrolled from January 2000 to December 2005, and the median follow-up period was 5.23 years (1.75–8.48 years). The prevalence of depressive disorder was 4.21% (813 of 19,316) in the cervical cancer cohort, and it was 3.85% (744 of 19,316) in the control cohort. The incidence risk ratio of depressive disorders was 1.35 (95% CI =1.22–1.49,  $P < 0.001$ ) among these cervical cancer patients. Cervical cancer, as an independent risk factor, was associated with developing subsequent depressive disorder. In addition, being older ( $\geq 65$  years old) and the co morbidities of diabetes mellitus, ischemic heart disease, and cerebro vascular disease were also risk factors for predicting depressive disorder in cervical cancer patients. Cervical cancer is a prominent risk factor for the development of depression in women with cervical cancer in Taiwan. The patients with co morbidities, including diabetes mellitus, ischemic heart disease, and cerebro vascular disease, have higher risks of developing depression. However, there were no significant differences among the cervical cancer treatment modalities. In conclusion, these patients require early psychological support and intervention

**Melkam Alemayehu 2018**

Cross-sectional study participants were 390 patients with established diagnosis of cancer, who were recruited consecutively when visiting a tertiary treatment centre in Addis Ababa, Ethiopia. The occurrence of depression was determined using the nine items Patient Health Questionnaire (PHQ-9). Major depressive disorder was confirmed: (1) when five or more of the PHQ-9 symptoms were endorsed as occurring for at least ‘more than seven

days’, with the exception of suicidal ideation item which counted as a positive rating if it had occurred even once in the previous fifteen days. (2) One of the symptoms has to be either depressed mood or loss of interest. Pain complaint was measured by Numeral Rating Scale (NRS) and severity of pain was assessed using Verbal Rating Scale (VRS). The prevalence of major depressive disorder was 16.4% (95%CI: 13.1%, 20.4%), and sub threshold depression was 17.4% (95%CI: 14.0%, 21.5%). Pain complaints occurred in 69.0% (95%CI: 64.3%, 73.4%) of the participants. The odds of having a major depressive symptom was over four times higher among participants who had pain.

**Mandeep Kaur 2018**

Quasi experimental pretest-posttest design was used in the study. A total of 60 patients receiving radiotherapy/chemotherapy were assigned in two groups of 30 each, through total enumeration sampling technique. The tools used for the study were Zung Anxiety Scale, Beck Depression inventory, and Fatigue Scale. The protocol used for the study includes the Jacobson’s Progressive muscle relaxation technique, counseling and home care techniques. Socio demographic variables and clinical profile of participants in both groups were comparable. Interventional package significantly reduces the anxiety, depression, and fatigue ( $P < 0.001$  in 3 variables) in experimental group. Interventional package for patients with cervical cancer proved to be an effective modality in reducing the anxiety, depression, and fatigue

**Sarah said sayed NAS 2017**

This is a cross-sectional comparative study conducted at NCI, CU between November 2016 and March 2017 for evaluating anxiety, depression and QOL in, 128 breast and 72 gynecological cancer patients. Self-administered questionnaires, face-to face interview and reviewing patients’ charts were used for collecting relevant data Mean age of patients was  $50.6 \pm 12.9$  years, the majority (73.0%) were married with the greatest part (75.3%) residents of urban areas, mostly of low educational level, and most of them were house wives (76%). Regarding state of treatment 21.5% of patients in both groups were newly diagnosed, 12.0% surgically treated and the majority (66.5%) were receiving post-operative treatment. Prevalence of anxiety and depression was 28.5% and 32.5% respectively. Patients with gynecological cancers showed significantly higher levels of anxiety and depression than breast cancer group. In the whole group, anxiety and depression did not show a relation to demographic, clinical, pathological characteristics, state or type of treatment in both study groups. QOL was significantly poorer in physical and social aspects in females with gynecological cancers than those with breast cancer. Retired/ unemployed women showed lower social and physical QOL as compared to housewives and employed women. Also QOL was significantly inferior in patients receiving postoperative treatment as compared to newly diagnosed and surgically treated groups. Independent predictors of poorer physical dimension of QOL included higher HADS depression score, retired or unemployed women, and being under postoperative treatment. For social dimension, predictors of poorer QOL included the same variables plus being treated from gynecological cancer. Anxiety and depression represent a problem in females with breast and gynecological cancers with statistics comparable

to the international figures. Screening for anxiety and depression should be adopted for all patients as a routine in the clinic upon their first visit and on a regular basis thereafter for better outcome of treatment and quality of life.

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