



**A STUDY ON INFLUENCE OF SOCIO ECONOMIC VARIABLES AND CERVICAL
CANCER AWARENESS AMONG THE RURAL MARRIED WOMEN IN THANJAVUR
DISTRICT**

Miss M.Vinotha

M.A., M.Phil., Ph.D Research Scholar (FT), Department of Economics, RSGC

Dr.C.Sunitha.

, M.A.,MBA.,M.Phil.,Ph.D.,B.Ed.,PGDM.,PGDE.,

Head and Associate Professor of the Department, Department of Economics

Rajah Serfoji Government Colleges, Thanjavur

ABSTRACT

Cervical cancer is the fifth most common cancer in human, the second most common cancer in women worldwide and the most common cancer cause of death in the developing countries. A few cervical cancer mixtures are of both types. Cervical cancer is the commonest cancer in the female in the menopause zone in India, occupying almost 50% of all female cancer. Cervical cancer usually early treatable life unchecked however it is almost always fatal. Given time the cervical cancer spread to rest of the uterus the plodder the rectum and the abdominal wall. Improvement in cancer detection and treatment has led to consistent declines in mortality from much cancer. India has a population of 436.76 million women aged 15 year and older who are at risk of developing cervical cancer. Every year 122844 women are diagnosed with cervical cancer and 67477 die from the disease. In India, cervical cancer is the second most common cancer among women and also the second most common cancer among women between 15 and 44 years of age. In the mostly available source of the information in the village primary health centers workers and area staff nurse from 42% of the respondents gained to the knowledge of cervical cancer. The economic condition and standard of living is connected in awareness. Economic condition is rise in standard of awareness about the cervical cancer. This study deal with the awareness about the casus, treatment and prevention of cervical cancer of rural area married women in Thanjavur district of the state of Tamil Nadu.

Key word: Health, Cervical cancer, Awareness

INTRODUCTION:

The health status of a population is a reflection of the socio- economic development of the country. Healthy population is a pre-condition for a healthy economy. Even the survival of any country is inextricably related to the health of its population. Health of a population is measured in terms of health indices, such as, infant mortality rate, maternal mortality rate, nutritional standard, life expectancy at birth, literacy rate, medical care facilities available, availability of basic amenities like safe drinking water, sanitation and housing and others socio-economic and environment conditions required for making a good standard of health. Hence



ancient times, human being through their organization have tried to formulation rules and protocols that would enhance chances of sustained good health. [J.Cyril kanmony]

HEALTH ISSUES OF WOMEN

While both men and women contract various conditions, some health issues affect women differently and more commonly. Furthermore, many women's health conditions go undiagnosed and most drug trials do not include female test subjects. Even so, women bear exclusive health concerns, such as breast cancer, cervical cancer, menopause, and pregnancy. Women suffer higher heart attack deaths compared to men. Depression and anxiety exhibit more frequently among female patients. Urinary tract conditions present more often in females, and sexually transmitted diseases can cause more harm to women. Among the conditions that present most frequently in women, the following eight illnesses pose considerable health risks. i) Heart Disease ii) Breast cancer iii) Ovarian and cervical cancer iv) Gynecological Health v) Pregnancy issues vi) Autoimmune Disease vii) Depression and anxiety viii) Health technology for women. (Master of Science in Nursing – Articles)

CERVICAL CANCER

Cervical cancer is the fifth most common cancer in human, the second most common cancer in women worldwide and the most common cancer cause of death in the developing countries. Sexually transmitted human papilloma virus (HPV) infection is the most important risk factor for cervical intraepithelial neoplasia and invasive cervical cancer. The cervix is the narrowed portion of a women's uterus shaped like a cone is connect the upper portion of the uterus to the vagina as is the "gate way" of the birth control. Cervical cancer begins slowly with pre-cancerous changes in the cells lining with inside or outside of the cervix these the atypical cell may go on to a fall blown invasive cancer most case are the result of an infection. About 80-90 % of cervical cancers are squamous cell carcinomas. Occurring in the flat squamous cell the cover the outside of the cervix. A few cervical cancer mixtures of both types. Cervical cancer is the commonest cancer in the female in the menopausal zone in India, occupying almost 50% of all female cancer. The incidence starts to rise in yearly 30's reach a peak at 40-50 years in India age is 10 younger than that in the west while early marriage poor sexual hygiene and growing extra-marital and pre-marital contacts, multiple sexual. (Dr.Meenal kumar. 2004

Cervical cancer is a cancer arising from the cervix. It is due to the abnormal growth of cells that have the ability to invade or spread to other parts of the body. Early on, typically no symptoms are seen. Later symptoms may include abnormal vaginal bleeding, pelvic pain, or pain during sexual intercourse. While bleeding after sex may not be serious, it may also indicate the presence of cervical cancer. Human papillomavirus infection (HPV) causes more than 90% of cases; most people who have had HPV infections, however, do not develop cervical cancer. other risk factors include smoking, a weak immune system, birth control pills, starting sex at a younger age, and having many sexual partners, but these are less important. Cervical cancer typically develops from precancerous change over 10 to 20 years. About 90 % of cervical cancer cases are squamous cell carcinomas, 10 % are adenocarcinoma, and a small number are other types.



Diagnosis is typically by cervical screening followed by biopsy. Medical imaging is then done to determine whether or not the cancer has spread.(Cervical cancer – Wikipedia)

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 cancer. 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 programmes. There are currently vaccines that protect against common cancer-causing types of human papilloma virus and can significantly reduce the risk of cervical cancer. (WHO- cervical cancer)

EARLY SIGNALS

Cervical vaginal and rarely ovarian cancer; all can cause bleeding from vagina as an early symptom most of all the time this bleeding occurs imposed menopausal women where any bleeding between period – women in their child – bearing years and particular in the years before menopause sometime experience bleeding between menstrual periods.

While early detection, cervical cancer usually early treatable life unchecked however it is almost always fatal. Given time the cervical cancer spread to rest of the uterus the bladder the rectum and the abdominal wall. Cervical cancer can then invade other organs throughout the body invasive cervical cancer is very common disease in India, since the pap screening program is not being successfully carried out in the country. In advanced countries with the program carried out in the Papanicolaou (pap) smear, a screening that allows the detection of cancerous and pre-cancerous change in the cervix, rates of cervical cancer have dropped by as much as 70 % in developing nations without screening programs, however, cervical cancer is still a very serious concern. The other important aspect is HPV virus prevalence, since this is a sexually transmitted disease, the sexual behaviors of the female and that of her male partner are significant. (Dr. Meenal kumar, Dr.Kumar.2004)

CERVICAL CANCER IN INDIA

India has a population of 436.76 million women aged 15 year and older who are at risk of developing cervical cancer. Every year 122844 women are diagnosed with cervical cancer and 67477 die from the disease. In India, cervical cancer is the second most common cancer among women and also the second most common cancer among women between 15 and 44 years of age. Based on Indian studies, about 82.7% of invasive cervical cancer showed the presence of HPV 16 or 18. Other epidemiological risk factors for cervical cancer are early age at marriage, multiple sexual partners, multiple pregnancies, poor genital hygiene, malnutrition, use of oral contraceptives, and lack of awareness. India also has the highest (age standardized) incidence rate as 22 (per 100,000 women per year) of cervical cancer in South Asia (estimation for 2012), compared to 19.2 in Bangladesh, 13 in Sri Lanka, and 2.8 in Iran. (National Health portal)



OBJECTIVE OF THE STUDY

- To assess awareness of Rural Married women about the cervical cancer in Thanjavur district. (causes symptoms, diagnosis, treatment, recovery)
- To study on relationship between socio economic variables and cervical cancer awareness in Thanjavur district.

METHODOLOGY

The Thanjavur District one of the 32 in Tamilnadu is taken as the area for the present study. It is one of the biggest districts in Tamilnadu state with an area of 3,396.5 square km. it is on the east coast of Tamilnadu. Basically it is an agriculture district. Thanjavur District is divided into three revenue sub division namely Thanjavur, Pattukkoti, Kumpakonam, during the formation of a separate district. Thanjavur district was constituted with 15 development blocks. Presently the district has only 14 administrative blocks. (C.Sunitha. 2016). 51 ward in Thanjavur. Sample selected in random sampling method 5 % sample collected in each and every ward in Thanjavur.

Thus 250 married women were selected by the sampling. Only the adults female of above the age of 18 visiting the health center for any reason medical or non-medical during the three months January 2019- March 2019 were considered for study. Data collected was done during the same period using a validated questionnaire and simple percentage has been used.

REVIEW OF RELATED LITERATURE

Improvement in cancer detection and treatments have led to consistent declines in mortality from many cancers. However many patients present for treatment at a point where more invasive treatment is required and treatment outcomes are less than optimal. One factor that has been consistently shown to be associated with late diagnosis and treatment is delay in seeking help for symptoms. This paper reviews the literature on women's awareness of cancer symptoms and aims to identify knowledge gaps that need to be addressed in order to improve help-seeking behaviors. The discovery of substantial gaps in awareness suggests a need for improved community education regarding cancer symptoms. (Sandra C Jones, Keryn Jhonson)

Age is an important factor for the allocation of treatment and for survival for patients with invasive cervical cancer. Between January 1986 and July 2003 1582 patients with invasive cervical cancer were evaluated and managed at a hospital in Missouri, including 197 patients age >70 years. Early stage disease occurred in 44% of the women >70 years compared to a 60% incidence in women <70 years ($p < 0.0001$). Even with adjustment for disease stage younger patients were more likely to undergo surgery and older patients radiotherapy ($p < 0.0001$). The elderly women were 9 times more likely than the younger women to forego treatment (3.6% vs 0.4% $p < 0.0001$). This study adds to others that suggest elderly patients with malignancies are treated differently, and often have inferior outcome compared with younger patients. Several factors contributed to these differences, including the presence of more severe coexisting disease in elderly patients, which is biased against radical surgery. Other studies have shown that when



adequate treatment is delivered, both tumor control and survival in elderly women are similar to younger women. (write JD, Gibb RK, Geevarghese)

The association between the human papilloma virus infection of cervical epithelium and risk of cervical carcinoma was established by a study conducted by (Southern and Herrington, 1998) where they reported that these viruses expressed proteins that could interfere with function of some of normal components of cell cycle regulation

Clarke and Shetty, 2001 suggested that there existed an association between HIV and cervical cancers. They reported that HIV alters the natural history of HPV infection with decreased regression rates and rapid progression to high grade and invasive lesions. The results also suggested that HIV associated cervical cancers are thought to progress through the microsatellite instability pathway, whereas HIV negative ones progress through loss of heterozygosity.

Dasgupta et al., 2002 studied the prevalence of the established risk factors associated with the cancer of the cervix. About 103 women were included in this study. The results so obtained concluded that there was a high association of some risk factors associated with the cancer cervix. These high risk factors were the age, age of marriage, age at the time of first child birth, parity, genital hygiene and female reproductive tract infections.

Micronucleus levels in exfoliated buccal mucosa cells of patients with primary breast, lung, cervix uteri cancer, and patients with Hodgkin's disease were studied in 59 patients by Nersesyan et al., 2002 The results concluded that there was a significant increase in the number of micronuclei in cells of cancer patients as compared with healthy persons (n=45). The evaluation of micronuclei number in buccal mucosa cells showed genomic instability in somatic cells of humans.

DATA ANALYSIS

OVERALL AWARENESS

Questioned about the general awareness regarding cervical cancer, half of the respondents revealed that they are not at all aware same. In the mostly available source of the information in the village primary health centers workers and area staff nurse from 43% of the respondents gained to the knowledge of cervical cancer. While the media account for 14% awareness the society compressing the family, relative and friends. The majority of rural area women awareness in area staff nurse and PHC workers.



Table No: 1

Overall Awareness

S.NO	Whether heard of cervical cancer	No of respondents	Percentage
1	Yes	105	42%
2	No	145	58%
	Total	250	100%
If yes the source of information (multiple answers)			
1	Family / Friends/ Relatives	13	12%
2	PHC workers/ Area staff Nurse	44	42%
3	Family doctors/ Gynecologists	28	27%
4	Media	15	14%
5	Other source	5	5%
	Total	105	100%

Source : primary data.

RELATIONSHIP WITH SOCIO ECONOMIC FACTORS:

They study analysed whether various socio-economic demographic variables have any statistically significant relationship with the awareness of cervical cancer. The economic condition and standard of living is connected in awareness. Economic condition is rise in standard of awareness about the cervical cancer. One of the most important relationship of cervical cancer awareness is education qualification education qualification increase awareness of cervical cancer awareness rural area women only educated in primary level so it's fail of cervical cancer awareness.(C.Sunitha, 2016). A similar relationship is witnessed between occupation status of women and awareness level. 42 % rural area women occupation is agriculture so the level of awareness is low are minimum level in this area. Rural area cast and religion fail in cervical cancer 72 % of women's is Hindu and 58 % of women is SC/ST. Birth of child is knowledge and awareness gain reason.



Table No: 2

Relationship between the socio- economic Variable and awareness about the cervical cancer

Variables	Category	Awareness in no of respondents			Awareness in % of respondents		
		Aware	Not aware	Total	Aware	Not aware	Total
Age in years	Below 20	19	26	45	08%	10%	18%
	21 – 30 years	32	28	60	13%	11%	24%
	31-40	26	29	55	10%	12%	22%
	41 – 50	18	34	52	07%	14%	21%
	Above 50	10	28	38	04%	11%	14%
	Total	105	145	250	42%	58%	100%
Religion	Hindu	80	100	180	32%	40%	72%
	Christian	15	28	43	06%	11%	17%
	Muslim	10	17	27	04%	07%	11%
	Total	105	145	250	42%	58%	100%
Cast	BC	24	35	59	10%	14%	24%
	MBC	29	39	68	12%	16%	28%
	SC/ST	36	55	91	14%	22%	36%
	Others	16	16	32	06%	06%	12%
	Total	105	145	250	42%	58%	100%
Marital Status	Married	85	122	207	34%	49%	83%
	Widows / others	20	23	43	08%	09%	17%
	Total	105	145	250	42%	58%	100%
No of children	0-2	32	35	67	13%	14%	27%
	3-5	52	82	134	21%	33%	54%
	More than 5	21	28	49	08%	11%	19%
	Total	105	145	250	42%	58%	100%
Education	0-8 th standard	18	65	83	07%	26%	33%
	9-12 th standard	38	45	83	15%	18%	33%
	Degree	25	16	41	10%	06%	16%
	Others	24	19	43	10%	08%	18%
	Total	105	145	250	42%	58%	100%
Occupation	House wife	31	32	63	12%	13%	25%
	Agriculture worker	49	60	109	20%	24%	44%
	Government job	15	22	37	06%	09%	15%
	Private and others	10	31	41	04%	12%	16%
	Total	105	145	250	42%	58%	100%
Yearly family income	Less than 50000	48	57	105	19%	23%	42%
	50001 – 100000	37	45	82	15%	18%	33%
	100001 – 150000	12	30	42	05%	12%	17%
	More than 150000	8	13	21	03%	05%	08%
	Total	105	145	250	42%	58%	100%

Source: primary data.



CAUSES OF CERVICAL CANCERS

All most cases of cervical cancer are caused by HPV. HPV is very common virus that can be passed on through any type of sexual contact with a man or women. Cervical cancer begins when health cells acquire a genetic change that causes them to turn into abnormal cells. Health cell grow and multiple at a set ratio eventually dying at a set of time. Cancer cells grow and multiply out of control, and they don't die. The accumulating abnormal cells from a mass (tumor). Cancer cell invade nearby tissues and can break off from a tumor to spread (metastasize) elsewhere in the body. It is not clear what causes cervical cancer; but it's certain that HPV plays a role. HPV is very common and most women with the virus never develop cervical cancer. This means other factors such as your environment of your lifestyle choices also determine whether you will develop cervical cancer. (Mayoclinic) Women are aware of the cause of cervical cancer, of the 100 respondents interviewed. 39 % of women respondents strongly agree in aware in multiple sex partners in cervical cancer. And next one is married to man who had multiple partner is causes of cervical cancer.

Table No: 3

Causes of cervical cancer

S.No	Do you know about the various causes	No of respondents	Percentages
1	Yes	70	67%
2	No	35	33%
	Total	105	100%
If yes, the causes know			
1	Sexual transmitted disease	13	18%
2	Multiple partners	27	39%
3	Marriage to man who had multiple partner	12	18%
4	Early age of marriage	10	14%
5	Smoking	8	11%
	Total	70	100%

Source : primary data

SYMPTOMS OF CERVICAL CANCER

A common symptom of cervical cancer can be irregular or abnormal bleeding which can happen during menstruation or after sexual intercourse. At time patients may not have any symptoms. Women are mostly uncomfortable discussing this and misinterpret it as spotting or normal menstrual variation which causes further complication. Usually, warning signs of cervical cancer include

- i) Bleeding after sex
- ii) Bleeding between menstrual cycles.
- iii)



Bleeding after the cessation of menstruation iv) Vaginal discharge which is bloodstained. (Timesnownews)

Women with early stage cervical cancer generally produce no signs or symptoms. Signs and symptoms of more advanced cervical cancer include, vaginal bleeding after intercourse, between period or after menopause. Watery, bleeding vaginal discharge that may be heavy and have a foul order. Pelvic pain or pain during intercourse. (Mayoclinic). On the 42 respondents who know something about cervical cancer. 74 % are aware of one or other symptoms of the same. They all unanimously agree that bleeding between period is one of the important symptoms of the cervical cancer is 54 %. Other one symptom is heavier menstrual periods.

Table No: 4

Awareness about the Symptoms of cervical cancer

S.No	Do you know about the various symptoms	No of respondents	Percentages
1	Yes	78	74%
2	No	27	26%
	Total	105	100%
If yes, the symptoms know			
1	Pain during physical relationship of pelvic exam/ bleeding	7	9%
2	Bleeding after menopause or spoiling between periods	40	51%
3	Longer or heavier menstrual periods	20	26%
4	Unusual discharge from the vagina	11	14%
	Total	78	100%

Source: primary data

DIAGNOSIS OF CERVICAL CANCER

Doctors use many tests to find, or diagnosis, cancer. They also do tests to learn if cancer has separated to another part of the body from the where it started. If this happens, it is called metastasis. In addition to a physical examination the following tests may be used to diagnosis cervical cancer:

- a) Physical test: physical test of the body to check general signs of health, including for signs of disease, such as lumps or anything else that unusual.
- b) Pelvic examine: in this examination, the doctor feels a women’s uterus, vagina, ovaries, cervix, bladder, and rectum to check for any unusual changes.
- c) Pap test: During a pap test, the doctor gently scrapes the outside of the cervix and vagina, taking samples of the cells for testing.



d) HPV test: An HPV test is similar to a pap test, in which the test is done on sample of cells from the patient’s cervix. The doctor may test for HPV at the same time as a pap test or after pap test result show abnormal changes to the cervix. HPV test is positive then the doctor may suggest one are more following test i) Colposcopy , ii) Biopsy.

The 100 respondents interview this study, only 32 of respondents aware in diagnosis of cervical cancer. 34 % of the rural area women agree to the pelvic examination to aware and most of women 41 % of women aware in pep test in the study area.

Table No: 5

Awareness about the diagnosis of cervical cancer

S.No	Do you know about the various symptoms	No of respondents	Percentages
1	Yes	80	76%
2	No	25	24%
	Total	105	100%
If yes, diagnostic method know			
1	Physical test	11	14%
2	Pelvic Exam	28	35%
3	Pap test	32	40%
4	HPV test	9	11%
	Total	80	100%

Source : primary data

TREATMENT FOR CERVICAL CANCER

Treatment of cervical cancer varies according to the stage of the cancer at the time of diagnosis. The available treatments are surgery, Radiotherapy and Chemotherapy. (Mayoclinic staff. 2017) Regarding the treatment procedure, a majority of the 31 respondents are aware in one or other treatment procedures. 84 % of rural women aware in surgical treatment in this study areas. Majority of the women were aware in surgical treatment method.

Table No: 6

Aware about the various treatment

S.No	Do you know about the various treatment	No of respondents	Percentages
1	Yes	92	88%
2	No	13	12%
	Total	105	100%
If yes, treatment technique know			
1	Surgical procedures	77	84%
2	Radiation therapy	10	11%
3	Chemotherapy	5	5%
	Total	92	100%

Source: primary data.

RECOVERY FROM CERVICAL CANCER

The study about the optimistic attitude of the rural area married women respondents regarding the possibility of complete recovery, only 33 % of the rural area women’s believe in recovery possibility mostly 67 % of women’s are so not possibility or negative perception. 86 % of women’s answers to recover opinion early detection in cervical cancer complete recovery.

Table No: 7

Aware the recovery from cervical cancer

S.No	Recovery from the cervical cancer	No of respondents	percentages
1	Yes	35	33%
2	No	70	67%
	Total	105	100%
If yes, recovery depend on			
1	General health	5	14%
2	Stages of cancer and early detection	30	86%
	Total	35	100%

Source: primary data.

PREVENTION OF CERVICAL CANCER

Cancer prevention is action taken to lower the change of getting cancer. Prevention will reduce the risk of cervical cancer. Four type of prevention is avoiding cervical cancer of women get vaccinated against HPV, have routine pap test, practice safe sex and last one is don’t smoke.



(Mayoclinic) This study area women mostly agree in prevention aware is in safe sex. Mostly 59 percent of women agree in safe sex is the prevention of cervical cancer. Rural area women strongly agree this prevention of cervical cancer is safe sex and next one is get vaccination against HPV. One 5 percent women agree to the cervical cancer preservation is smoke.

Table No: 8

Prevention of the cervical cancer

S.No	prevention of cervical cancer	No of respondents	Percentages
1	Yes	97	92%
2	No	8	8%
	Total	105	100%
If yes, prevention method know			
1	Get vaccinated against HPV	22	23%
2	Routine pap test	13	13%
3	Safe sex	57	59%
4	Don't smoke	5	5%
	Total	97	100%

Source: primary data

COMPLICATION OF CERVICAL CANCER

Some women with cervical cancer may develop complication. These can arise as a direct result of the cancer or as a side effect of treatments such as radiotherapy, chemotherapy and surgery. Complication associated with cervical cancer can range from the relatively minor, like some bleeding from the vagina or having to pee frequently to life- threatening, such as several bleeding or kidney failures. (cancer.net)

CONCLUSION

The study says that the developed and developing countries both can reduce cervical cancer properly. The research also stated that the cervical cancer awareness also important for rural area women screening programs and any other step of awareness program in rural areas. This study concluded that the rural area married women's cervical cancer awareness level was low and not fully aware this. Thus there is a need to provide awareness in rural area for married women which will in turn make a healthy society.

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