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## **INTRODUCTION**

According to the National Cancer Registry Programme (NCRP, 2009) of India, the number one cancer that continues to kill women in India is cancer of the cervix. This can be verified if one visits any one of our regional cancer centres in the country. This is a cancer that has been practically wiped out in the West, while India continues to contribute as much as 18% to the total global figure of 100,000 cases diagnosed each year.

The important primary preventive factors that have led to a reduction in the incidence of cancer of the cervix in the West have been access to clean water and, therefore, better personal hygiene, as well as late marriage and planned childbearing. The secondary preventive factors have been regular checkups after a woman becomes sexually active. Experts tell us that it takes almost ten years for abnormal changes in the cells of the cervix to reach a stage of full-blown cancer, and if interrupted in time then all it takes is simple and inexpensive interventions to stop these changes from progressing further and becoming malignant and life threatening.

It is to our eternal shame that in India, despite our much touted cancer control programme, majority of women with cervical cancer come at a stage when their cancers are no longer curable. Why is this so? The sad truth is that it is a cancer that, by and the large, affects the poor and

illiterate. It is women in living in rural areas and in urban slums who are at the greatest risk. Until their living conditions are improved and they are provided access to better health facilities, including regular checkups, they will continue to die of this cancer. Education and provision of minimal infrastructural facilities like clean water for a decent living in the rural and slum areas would go a long way in saving the lives of our disadvantaged women folk. (NCRP, 2010).

### **Need for the Study**

In India, cervical cancer accounts for an estimated 24% of India's cancer cases among women, and, additionally, 74,000 Indian women die annually from this disease. Cervical cancer is the most common disorder among middle-aged women, accounting for increased mortality rate in Indian women due to lack of awareness on prevention and lack of opportunity for early diagnosis and treatment. The National Cancer Control Program emphasizes the importance of early detection and treatment, but the country has no organized screening program, and many Indian women lack information about the disease and access to prevention and treatment facilities. Therefore, to control the disease, a clear understanding of factors contributing to development of cervical cancer is necessary. In this situation, the level of awareness of the population regarding the risk factors, symptoms of the disease, and the importance of early treatment are important for control and even prevention of the disease. Hence, the present study on the prevalence of risk factors of cancer of the cervix among married women of Guntur district was conducted.

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### Statement of the Problem

An exploratory study to assess the prevalence of risk factors and knowledge of cervical cancer among married women of Guntur District in Andhra Pradesh

### Objectives of the Study

1. To assess the presence of risk factors of cervical cancer among married women.
2. To assess the knowledge of women regarding early diagnosis, treatment and prevention of cervical cancer.
3. To find the association between women's knowledge on cervical cancer and selected risk factors.
4. To prepare a booklet and distribute to those who have deficient knowledge regarding cervical cancer.

### Hypothesis

The study aimed to test the hypothesis: Here is a significant association between knowledge of women on cervical cancer and selected risk factors at 0.05 level of significance.

### Conceptual Framework

The conceptual frame work used for this study was Modified Health Belief Model developed by Rosenstock and Becker.

### Research Methodology

An exploratory survey design was been used in the study. The population comprised of married women between the age group of 30-60 years in Guntur district of Andhra Pradesh. A sample of 60 women from Sangadigunta urban slum area in Guntur city was selected using purposive sampling technique. The data was collected from 1<sup>st</sup> May, 2010 to 30<sup>th</sup> June 2010.

### Development and Description of the Tool

The tools used in this study were demographic profile (6 items), risk factors for cervical cancer

(10 items) with 'Yes' and 'No' alternative responses.

The knowledge questionnaire consisted of 20 items with two alternative responses, i.e. 'True' and 'False'. The total score of knowledge questionnaire was 20 and a score below 10 was considered 'unfavorable knowledge', a score from 11 to 15 was considered as moderately favorable knowledge, while a score above 16 was considered as 'favorable knowledge'.

### Validity and Reliability of the Tool

Content validity of the tool was established by experts from nursing and medical field. Reliability was calculated by split half method and the 'r' value was 0.9. The findings of the pilot study revealed the feasibility of the study.

### Data Collection Procedure

Informed consent of the sample was obtained and confidentiality of responses was assured. The researcher interviewed the sample and the average time taken for each client was about 15-20 minutes. After interview, a pamphlet "Understanding Cancer Cervix" consisting of the etiological factors, clinical manifestations, early diagnosis, treatment, and prevention was explained and distributed to a small group of three to five subjects. The average time for explaining the pamphlet was about 20 minutes and 10 minutes for further interaction.

### Research Findings

The data was analysed according to the objectives of the study using descriptive and inferential statistics.

**Section I:** Description of data on percentage distribution of the sample by their demographic variables.

**Section II:** Description of data on percentage distribution of the risk factors for cervical cancer

**Section III:** Description of data on knowledge of the sample on cervical cancer.

**Section IV:** Description of data on association between knowledge and selected cervical cancer risk factors.

**Section I: The demographic data of the samples is described in terms of their age, education, occupation, monthly income and socio-economic status in Table 1.**

The demographic profile reflects the general background of the sample. Demographic variables also indicate the physical environment of the sample which may have an influence on risk factors and on the knowledge of the sample

about cervical cancer. Hence, an attempt was made to study these variables.

Table 1 shows the data on the percentage distribution of women by their age, education, occupation, family monthly income, socio-economic status, and area of residence.

Majority of the sample, i.e. 60% was in the age group between 51-60 years, and only 6.67% were in the age group between 31-40 years.

With regard to the level of literacy, 50% were illiterate while only 6.67% studied upto Intermediate. This reveals that low literacy rate is associated with high incidence of cervical cancer.

The data on occupation revealed that 60% were housewives and 40% employed as daily

**Table 1. Frequency and percentage distribution of the sample by Age, Education, Occupation, Monthly income, Socio-economic status and Area of residence**

Demographic data	Frequency	Percentage
<b>N=60</b>		
<b>1. Age</b>		
1.1 31-40	04	06.67
1.2 41-50	12	20.00
1.3 51-60	36	60.00
1.4 61 and above	08	13.33
<b>2. Education</b>		
2.1 Illiterate	30	50.00
2.2 Primacy school	14	23.33
2.3 High School	12	20.00
2.4 Intermediate /SSC	04	06.67
2.5 Degree and above	-	-
<b>3. Occupation</b>		
3.1 Employed	24	40
3.2 Unemployed	-	-
3.3 House wife	36	60
<b>4. Family monthly income</b>		
4.1 Rs 2001 - 3000	28	46.67
4.2 Rs 3001 - 4000	14	23.33
4.3 Rs 4001 - 5000	10	16.67
4.4 Rs 5001 and above	08	13.33
<b>5. Socio-economic status</b>		
5.1 Low	52	86.67
5.2 Middle	08	13.33
5.3 High	-	-
<b>6. Area of Residence</b>		
6.1 Urban	45	75
6.2 Rural	15	25

labourers. There were none unemployed in the sample.

Regarding the sample's family monthly income, majority of the sample (46.67%) had a family income between Rs. 2001-3000 and a small percent of 13.33% had an income above 5001 per month. This corresponds to the samples' low socio-economic status (86.67%).

Regarding the sample's area of residence, majority, i.e. 75% were living in urban slum area, while only 25% of the control group of the 35.6% were living in rural area.

### ***Section II: Data on percentage distribution of the risk factors for cervical cancer.***

Many studies reveal a high prevalence of important risk factors associated with cervical cancer i.e. age at menarche, age of marriage, age of first childbirth, parity, genital hygiene and reproductive tract infections. Therefore the following risk factors were considered important in this study.

Table 2 indicates the data on risk factors of cervical cancer. The major risk factors found were early marriage (83.33%), early childbirth, and long duration of married life. Majority of the sample i.e. 75%, reported history of genital infections, 73.33% reported poor genital hygiene 20% per cent had multiparity, while 25% had multiple sexual partners. Hariharan et al (2011) observed similar risk factors being responsible for cervical cancer among women.

### ***Section III: Description of Data on Knowledge of women about cervical cancer***

The women's knowledge scores on cervical cancer is described in this section in terms of frequency and percentage distribution, mean, median and standard deviation.

Knowledge refers to the correct response to knowledge items on cervical cancer as measured by the knowledge questionnaire. Knowledge is expressed by the respondents in scores, which are described as levels. The levels are classified as inadequate knowledge for score < 50%, moderately adequate knowledge for score between 51-75%, and adequate knowledge for score of > 76%.

Table 3 denotes the level of knowledge of the sample. Majority of the sample i.e. 83.33% had inadequate knowledge, a small number had moderate knowledge (16.67%) on cervical cancer, while none had adequate knowledge on cervical cancer.

Jajamohanraj and Vanjeenathammal (2008) assessed the knowledge of women on early detection and prevention of cervical cancer, and found that 68% of the women had inadequate knowledge.

Table 4 shows a mean score of 8.2, a median score of 9 and the most commonly occurring score of 9. The mean, median and mode scores suggest the inadequate knowledge of the sample on cervical cancer. Standard deviation 2.65 suggests that there is very little difference among

**Table 2. Frequency and percentage distribution of risk factors for cervical cancer among the sample**

**N=60**

S. No	Risk Factors	Frequency	Percentage
1.	Early Menarche	12	20.00
2.	Early Marriage	50	83.33
3.	Early Child birth	50	83.33
4.	Long duration of marital life	50	83.33
5.	Multi parity	12	20.00
6.	Multiple sexual partners	15	25.00
7.	History of genital infections	45	75.00
8.	History of abortions	08	13.33
9.	Poor genital hygiene	44	73.33
10.	History of Tobacco / pawn / smoking	14	23.33

**Table 3. Frequency and percentage distribution of level of knowledge of the sample on cervical cancer**

**N=60**

S. No	Level of Knowledge	Scores	
		Frequency	Percentage
1	Inadequate (< 50%)	50	83.33
2	Moderately adequate (51 – 75%)	10	16.67
3	Adequate (> 76%)	-	-

the knowledge scores of the women regarding cervical cancer.

***Section IV: Description of data on association between knowledge and selected risk factors of cervical cancer***

The Chi-square value between selected risk factor - early menarche (15.4), early marriage (20.96), early childbirth (11.04), long married life (29.1), multiple sexual partners (11.4) - and knowledge scores of the sample was found to be statistically significant at 0.05 level. Hence, the null hypothesis (Ho) was rejected and research hypothesis was accepted.

The Chi-square value between the history of genital infection (12.4), multiparity (29.1), poor genital hygiene (12.4), history of tobacco / pan (10.34) and knowledge of the sample was found to be statistically significant at 0.05 level. Hence, the null hypothesis (Ho) was rejected and research hypothesis was accepted.

## DISCUSSION

Several studies reveal that there is a definite association of some risk factors like early marriage, high parity, unsatisfactory genital hygiene, reproductive tract infections etc. with

cervical cancer. The risk factors of early marriage, early childbirth, and long duration of married life (83.33%) were predominant in the present study and the association between the women's knowledge of these risk factors and cervical development was found to be significant. Dutta (2009) in her study found that the estimated relative risk for developing cervical cancer among women getting married before 17 years of age was found to be high (7.9) as compared to women who were married after the age of 17 years.

Mohanty et al(2001) in their study observed that there was a decline of cervical cancer as the age of first marriage / first pregnancy advanced to 20-24 years. Similarly, a significant association was found between early marriage and cervical cancer by several authors. Early marriage indicates an early exposure to sexual activities and early pregnancy which are well known etiological factors for cervical cancer. These factors result in longer duration of married life, with greater opportunities for sexual activities and increased chances of becoming pregnant, all being associated with the disease.

The study revealed that 30 (50%) of the total sample gave birth to their first child before they were 18 years of age. Mohanty et al in their study found that the mean age of first pregnancy was as low as 18.13 years. There was a decline in the

**Table 4. Mean, Median, Mode and standard deviation of knowledge score on Cancer Cervix**

**N=60**

Mean	Median	Mode	Standard deviation
8.2	9	9	2.65

Range of scores: 5-14



cancer occurrence as the age at first pregnancy advanced to 20-24 years. Similarly, Dutta observed in her study the relative risk of acquiring the disease was six times more in cases of women who had first parity before 18 years of age ( $p < 0.0001$ ) as compared to those who had first parity after the age of 18 years. Lower age at first parity was found to be significantly associated with subsequent development of cervical cancer. This may be attributed to early sexual activity, hormonal changes during pregnancy or may be due to cervical trauma during delivery at a relatively younger age.

In the present study, one third of the study population had multiparity. Dutta found a significant association between increased parity and occurrence of cervical neoplasia ( $p < 0.05$ ). Again, Mohanty et al in their study observed that 93% of all cervical cancer patients had more than three children. Similarly, Nawalkha (1987) noticed a significant association between parity three and above and occurrence of cervical cancer. Thus, multiparity is a well-known risk factor for cervical cancer focussing just not on the frequency of coitus but also on the assault on the cervix during childbirth.

In the present study, 44 (73.33%) of the total number of women reported poor genital hygiene. In a study by Dutta, 46.1% of the women with cervical cancer had poor standard of genital hygiene. Significant association between poor genital hygiene and cervical cancer was also evident in Roy Chowdhury's study.

## CONCLUSION

India contributes about 18 to 24% of the global figure of the cases of cervical cancer every year. This study reveals that women residing in urban slums have very poor knowledge of risk factors, early diagnosis and prevention of cervical cancer.

Since, increased awareness and early diagnosis prove to be effective life savers of cervical cancer, nursing professionals together with their counterparts must organise awareness education and screening programmes among vulnerable groups of women regarding the importance of prevention and early diagnosis of cervical cancer.

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