



**ORIGINAL RESEARCH PAPER**

**Education**

**IMPACT OF SOCIO-DEMOGRAPHIC VARIABLES IN THE EARLY DIAGNOSIS OF CERVICAL CANCER IN KURNOOL DISTRICT, ANDHRA PRADESH**

**KEY WORDS:**

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**ABSTRACT**

Women's health has been described as "a patchwork quilt with gaps". Reproductive health is a fundamental right for every woman. Cervical cancer has become challenging and life threatening women's problem in industrially developed and developing countries. Structured teaching programme is very effective in improving knowledge in aspect of early diagnosis of cervical cancer. Majority (75.75 %) of students belongs to Science group gained good knowledge. The weighted scale shows scores of 120-175 as a good level of knowledge. In the post-test it was observed that 59.52 per cent of the respondent's gained good knowledge about early diagnosis on cervical cancer. It is suggested to educate and generate the nature of cervical cancer and to motivate periodical practice of cervical cancer

**INTRODUCTION**

Women's health is a broad term referring to physical and mental health problems which are exclusive and copious concern for women. Women's health has been described as "a patchwork quilt with gaps". Myriad issues around women's health relate to their reproductive health include maternal and child health, cervical health, breast health and endocrine health, includes menstruation, birth control and menopause and their adverse impact on the reproductive health among women. Apart from these, certain auto-immune diseases like endometriosis and osteoporosis also occur among women. Reproductive health is a fundamental right for every woman. Cancer is highly burden in India as there are more than 100 types of cancer. Moreover, it can be affected in any part of the body. The five most frequent cancers ranking in India in men and women are breast cancer, cervical cancer, oral cancer, lung cancer and colorectal. Cervical cancer has become herculean task and life threatening problem in industrially developed and developing countries. Cervical cancer is the second most common cause of death in India after cardiovascular disease. It is estimated that the new cancer cervix cases per year are 500,000 of them 79 per cent occur in the developing countries. Most of the women in India die from cervical cancer than any other country<sup>1</sup>. These evidences indicate reasons like lack of education, low income, lack of personal hygiene, multiparty, early marriage, less spacing of pregnancies, not seeking medical health and not going for regular health check-ups.

**REVIEW OF LITERATURE**

**G.Narayana et al. (2018)** conducted a cross-sectional, hospital-based survey with the sample of 403 women attending Department of Obstetrics and Gynaecology, a secondary care referral hospital. The study was designed for assessing knowledge, attitude and practice (KAP) towards cervical cancer, screening and prevention. The result of study reveals that 62.5 per cent of the respondents having positive attitude toward screening; in 74.6 per cent of the respondents, 41.6 per cent had only heard about cervical cancer through media, from friends 20.5 per cent had heard and 86.6 per cent are not having practice toward cervical cancer screening. The study suggested to educate and generate the nature of cervical cancer and to motivate periodical practice of cervical cancer.<sup>2</sup>

**Kalayu Bihane Mruts and Tesfay Bihane Gebremariam (2019)** conducted among 584 students by random sampling for determining the level of knowledge and perception towards cervical cancer among female DBU students. The study found that 14.5 per cent of the study participants were sexually active. Out of 232 students, 195 students (35.6%) had

a good knowledge. Students opined that cervical cancer is a severe disease and concluded that they need to improve the proper understanding of the risk factors of cervical cancers and its prevention. The study recommended that Government and non-government organizations should work in collaboration for improving the awareness knowledge on cervical cancer among women.<sup>3</sup>

**Dharitri Swain and Swayam Prangya Parida (2018)** conducted in their quasi experimental study selected 40 years aged women randomly to study and to sensitize them on the prevention of cervical cancer. In the study, the statically used the paired t-test is significant in knowledge and intention to be vaccination and develop the positive attitude to screen in future. The main findings are that 60.0 per cent of the women are having knowledge on symptoms, 88.0 per cent having knowledge on prevention, 86per cent were agreed HPV vaccination and 58.31 per cent were supported to HPV vaccination for preventing the cancer. The study concluded that it was only with education intervention that helps them to be more aware about protective aspects of cervical cancer.<sup>4</sup>

**Divyabharthi et al. (2017)** conducted a quasi experimental study on prevention of cervical cancer among Poonjeri, a rural area, Thirupuram block, Kanchipuram District. The objective was to assess the knowledge of cervical cancer and associated factors of knowledge. The findings show that 70 per cent of samples are not having previous knowledge on risk factors of cervical cancer, only 10 per cent were with inadequate knowledge. There is no significant association between prevention of cervical cancer and thus, it suggestive of inadequate knowledge among women.<sup>5</sup>

**Jonah. Musa and Chad J Achenbach (2017)** a quasi experimental study was conducted among eligible women population, at risk of cervical cancer with an objective of understanding the evidence of the effect of cervical cancer, education compare to control conditions on cervical cancer, screening rates. The result of the study shows that the use of theory based education interventions and significance of increased cervical cancer. The study concluded that the targeting communities with low literacy levels are offering the opportunity self sample collection. Those women have not responded to previous screening invitation.<sup>6</sup>

**Vanusha and Parvathavarthini (2017)** assessed the knowledge of adolescent girls on menstruation, pregnancy, contraception, STDs, AIDS and breast feeding. This study was carried out among 300 adolescent girls randomly selected from government girls' higher secondary schools of Pondicherry from class 8th to class 12th. A pre-tested

questionnaire (English/Tamil) was administered to students. This was followed by an interactive session with the students for clarify doubts, students were asked to fill an immediate post-test questionnaire to evaluate the effect of intervention (health education). After a minimum period of six months, the students were reassessed by a same pre-test and post-test questionnaire. There was drastically significant improvement in knowledge scores in various aspects of reproductive health following periodic health education intervention program.<sup>7</sup>

**Malleshappa and ShivarmKrishna (2011)** conducted a quasi-experimental to determine the effectiveness of a reproductive health education intervention programme among adolescent girls aged between 14 and 19 years in Kuppam mandal, Chittoor district, Andhra Pradesh. The study was carried out over a period of 8 months, in which a total of 656 adolescent girls were randomly selected from 3 High Schools (class X) and 3 Intermediate colleges (class XI & XII). The result shown that the knowledge score was improved significantly, after intervention. A significant increase in the overall knowledge on menstrual cycle, ovulation, fertilization and pregnancy by 44.5 per cent was noted (95 % CI=42.5, 46.5; P<0.001); knowledge regarding contraception

improved remarkably from 33.7 per cent to 97.4 per cent (P<0.0001). A significant improvement in the knowledge about transmission and prevention of STDs was noted after intervention (P<0.0001). A reproductive health education intervention programme improved the knowledge and attitude among rural adolescent girls regarding reproductive health.

**METHODOLOGY**

For the present study the researcher has under taken pre-test and post-test to the respondents, who comprised as a study group, in selected P.G Centres, Kurnool District, Andhra Pradesh. The researcher felt that, cervical cancer incidence is more in Kurnool District region and evaluated knowledge level by following Likert's scale.

**RESULTS AND DISCUSSION**

**Educational Status And Knowledge About Early Diagnosis Of Cervical Cancer**

The table 1 explains the respondents' knowledge with educational status about early diagnosis of cervical cancer.

**Table1 Education And Knowledge Of Respondents About Early Diagnosis Of Cervical Cancer**

Educational Status	Knowledge about Early Diagnosis of Cervical Cancer						χ <sup>2</sup> Value Pre-test	χ <sup>2</sup> Value Post-test
	Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post		
Science Group	15 (6.4%)	175 (75.75%)	145 (62.77%)	50 (21.64%)	71 (30.73%)	6 (2.59%)	4.045@	P<0.0001**
M.Com	4 (9.5%)	8 (19.04%)	30 (71.42%)	25 (59.52%)	8 (19.04%)	9 (21.42%)		
M.A.Literature	1 (2.77%)	5 (13.88%)	26 (72.22%)	15 (41.66%)	9 (25%)	16 (44.44%)		
MBA	3 (6.66%)	15 (33.33%)	30 (66.66%)	14 (31.11%)	12 (26.66%)	16 (35.55%)		
Total	23 (6.5%)	203 (57.34%)	231 (65.25%)	104 (29.37%)	100 (28.25%)	47 (13.3%)		

@ Not Significant \*\* Significant at 1 % level

The table 1 represents that out of 354 students in pre-test the lowest percentage belongs to MBA(6.66 %) and improved after STP is highest pre test score is 33.33 per cent, Science group gained highest percentage of pre-test score (145) and in post test gained score is (50%) which is average. Structured teaching programme is very effective in improving knowledge in the early diagnosis of cervical cancer. It shows that majority of students (75.75 %) belonging to Science group gained good knowledge. The other group also average amount of knowledge (44.44%, 41.46% and 33.3%, 35.55%)

the least knowledge gained (2.59%).

**Age And Knowledge About Early Diagnosis Of Cervical Cancer**

Age is one of the important demographic variables and indicates knowledge, maturity and endurance of the respondents. The distribution of respondents by age and knowledge about early diagnosis of cervical cancer is shown in the Table 2.

**Table 2 Age And Knowledge Of Respondents About Early Diagnosis Of Cervical Cancer**

Age groups	Knowledge About Early Diagnosis Of Cervical Cancer.						χ <sup>2</sup> Value Pre-test	χ <sup>2</sup> Value Post-test
	Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post		
20-22 yrs	14 (5.8%)	150 (62.24%)	149 (61.8%)	80 (33.19%)	78 (32.37%)	11 (4.56%)	0.15@	P<0.0001**
23-26 yrs	7 (9.33%)	40 (53.33%)	51 (68%)	10 (13.33%)	17 (22.67%)	25 (33.33%)		
26-28 yrs	2 (5.88%)	12 (35.29%)	27 (79.41%)	13 (38.23%)	5 (14.71%)	9 (26.47%)		
29yrs &>	Nil	1 (25%)	4 (100%)	1 (25%)	Nil	2 (50%)		
Total	23 (6.5%)	203 (57.34%)	231 (65.25%)	104 (29.37%)	100 (28.25%)	47 (13.3%)		

@ Not Significant \*\* Significant at 1 % level

Table 2 presents that out of 354 respondents the majority of the respondents belonging to the age group from 23-26 years only 9.33 per cent were had good knowledge in their pre-test, but it was 53.33 per cent in the context of post-test. In the present study, only (4 respondents) representation was from the age group of 29 years and above. All the respondents (100%) had average level of knowledge in their pre-test, but 25 per cent, 25 per cent and 50 per cent in the post-test have good, average and poor levels of knowledge respectively. The researcher found a significant difference in respondent's knowledge between the pre and post test. In the <sup>2</sup> analysis there is 95 per cent (P<.05) highly significant association between age differentials and the levels of knowledge about

early diagnosis of cervical cancer in both the contexts of pre and post-test. To know the respondent's knowledge regarding to the early diagnosis of cervical cancer, a weighted scale was formulated with a scores of 120-175 as a good level of knowledge; 65-119 as an average level of knowledge and less than 65 points as a poor level of knowledge. Based on the above scale the respondents were categorized accordingly.

**Religion And Knowledge About Early Diagnosis Of Cervical Cancer**

The table 3 explains the respondents of knowledge with religion about early diagnosis of cervical cancer.

**Table 3 Religion And Knowledge Of Respondents About Early Diagnosis Of Cervical Cancer**

Religion	Knowledge about Early Diagnosis of Cervical Cancer			χ <sup>2</sup> Value Pre-test	χ <sup>2</sup> Value Post-test
	Good	Average	Poor		

	Pre	Post	Pre	Post	Pre	Post		
Hindu	17 (6.7%)	150 (59.5%)	158 (62.7%)	80 (31.74%)	77 (30.6%)	22 (8.73%)	0.62@	0.0004**
Muslim	3 (6.1%)	30 (61.22%)	35 (71.4%)	10 (20.40%)	11 (22.5%)	9 (18.36%)		
Christian	3 (5.7%)	23 (43.39%)	38 (71.7%)	14 (26.41%)	12 (22.6%)	16 (30.18%)		
Total	23 (6.5%)	203 (57.34%)	231 (65.3%)	104 (29.37%)	100 (28.2%)	47 (13.3%)		

@ Not Significant      \*\* Significant at 1 % level

The table explains that majority of the respondents (71.7 %) have an average level of knowledge in pre-test, but after post-test there was a rise in their level of knowledge (43.39 %). The <sup>2</sup> analysis reveals that there is no significant association between the religion of the respondent and their level of knowledge about early diagnosis on cervical cancer in pre-test, but in post-test it was significantly associated at 0.05 level. In the post-test it was observed that 59.52 per cent of the

respondent's gained good knowledge about early diagnosis on cervical cancer.

**Marital Status And Knowledge About Early Diagnosis Of Cervical Cancer**

The table 4 explains respondents' knowledge with marital status about early diagnosis of cervical cancer.

**Table 4 Marital Status And Knowledge Of Respondents About Early Diagnosis Of Cervical Cancer**

M a r i t a l status	Knowledge about Early Diagnosis of Cervical Cancer.						<sup>2</sup> Value Pre-test	<sup>2</sup> Value Post-test
	Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post		
Unmarried	17 (5.9%)	180 (62.5%)	182 (63.19%)	80 (27.77%)	89 (30.9%)	28 (9.72%)	0.05@	0.0001**
Married	6 (9.1%)	23 (34.85%)	49 (74.24%)	24 (36.36%)	11 (16.66%)	19 (28.78%)		
Total	23 (6.5%)	203 (57.34%)	231 (65.3%)	104 (29.37%)	100 (28.2%)	47 (13.3%)		

@ Not Significant      \*\* Significant at 1 % level

The table 4 portrays that out of 354 respondents majority of the married respondents (74.24 %) had average level of knowledge in pre-test and in post-test 34.85 per cent of the respondents derived good at knowledge about early diagnosis of cervical cancer. The <sup>2</sup> analysis reveals that, in the pre-test and post-test there was a significant association (P<.05) between the respondent's marital status and with their level of knowledge about early diagnosis of cervical

cancer.

**Income Levels And Knowledge About Early Diagnosis Of Cervical Cancer**

The table 5 explains the respondents' knowledge with income levels about early diagnosis of cervical cancer.

**Table5 Income Levels And Knowledge Of Respondents About Early Diagnosis Of Cervical Cancer**

Income levels	Knowledge about Early Diagnosis of Cervical Cancer						<sup>2</sup> Value Pre-test	<sup>2</sup> Value Post-test
	Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post		
Rs.<5000	3 (7.5%)	26 (65%)	27 (67.5%)	10 (25%)	10 (25%)	4 (10%)	0.22@	0.0001**
Rs.5000-10000	3 (2.38%)	86 (68.25%)	83 (65.87%)	32 (25.4%)	40 (31.75%)	8 (6.35%)		
Rs.11000-15000	10 (10.64%)	50 (53.2%)	59 (62.77%)	36 (38.3%)	25 (26.59%)	8 (8.5%)		
Rs.16000 >	7 (7.45%)	55 (58.5%)	62 (65.96%)	29 (30.85%)	25 (26.59%)	10 (10.64%)		
Total	23 (6.5%)	203 (57.34%)	231 (65.3%)	104 (29.37%)	100 (28.2%)	47 (13.3%)		

@ Not Significant      \*\* Highly Significant at 1 % level

The table 5 represents that 126 out of the total 354 respondents belong to the income group of Rs.5000-10000/- category. Out of them majority (65.87%) have average in their level of knowledge about early diagnosis of cervical cancer in the context of pre-test. The <sup>2</sup> analysis reveals that there is highly significant (P<.05) association between the individual's income levels and her knowledge about the early diagnosis of cervical cancer in the context of post-test. It has been proved that acquiring knowledge was devoid of one's income level and low or high income cannot restrict an individual from

acquiring knowledge. In post-test 63.49 per cent of the respondents in the same income category raised top good level of knowledge about early diagnosis of cervical cancer.

**Age At Marriage And Knowledge About Early Diagnosis Of Cervical Cancer**

The table 6 explains respondents' knowledge with age at marriage about early diagnosis of cervical cancer.

**Table 6 Age At Marriage And Knowledge Of Respondents About Early Diagnosis Of Cervical Cancer**

Age at Marriage	Knowledge about Early Diagnosis of cervical Cancer.						<sup>2</sup> Value Pre-test	<sup>2</sup> Value Post-test
	Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post		
15-18yrs	2 (22.22%)	3 (37.5%)	6 (66.66%)	2 (25%)	1 (11.11%)	3 (37.5%)	0.14@	0.0001**
19-22 yrs	1 (3.33%)	5 (50%)	25 (83.33%)	10 (33.33%)	4 (13.33%)	15 (50%)		
23-26 yrs	3 (12%)	12 (48%)	16 (64%)	5 (24%)	6 (24%)	7 (29.1%)		
27yrs >	Nil	3 (75%)	2 (100%)	1 (25%)	Nil	Nil		
Unmarried	17 (5.90%)	180 (62.5%)	182 (63.19%)	85 (29.51%)	89 (30.9%)	23 (7.99%)		
Total	23 (6.5%)	203 (57.34%)	231 (65.3%)	104 (29.37%)	100 (28.2%)	47 (13.3%)		

@ Not Significant      \*\* Highly Significant At 1 % Level

The table depicts that out of the respondents who married at the age of 19-22 years, majority of them (83.33%) had average level of knowledge in their pre-test, but in post-test 50 per

cent of the respondents gained good knowledge about early diagnosis of cervical cancer. In case of the respondents who married in the age of 27 years and above 100 per cent had

average level of knowledge in their pre-test, after conducting post-test, the researcher found 75 per cent of the respondents gained good knowledge and another 25 per cent remained as it is with an average level of knowledge. The <sup>2</sup> analysis reveals that there was highly significant association between the age at marriage of the respondent and their level of knowledge about the early diagnosis of cervical cancer of the Cervix in the context of pre-test and the researcher found 95 per cent (P<.05) significance in post-test. In post-test 50 per cent of the respondents gained good knowledge about early diagnosis of cervical cancer and 75 per cent respondents were got good knowledge, 25 per cent were gain average knowledge.

### CONCLUSION

Cervical cancer is second most common cause of death in India after cardiovascular disease. Most of the women in India die from cervical cancer than any other country. Out of 354 students in pre-test the lowest percentage belongs to MBA (6.66 %) and improved after STP is highest pre test score is 33.33 per cent. Structured teaching programme is very effective in improving knowledge in aspect of early diagnosis of cervical cancer and majority of students belonging to Science (75.75 %) group gained good knowledge. Out of the 241 (68.1%) respondents who were in the age group of 20-22 years, majority (61.8%) were average in their knowledge about early diagnosis of cervical cancer in their pre-test. In the post-test it was observed that 59.52 per cent of the respondent's gained good knowledge about early diagnosis on cervical cancer.

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