



## KNOWLEDGE ABOUT PREVENTIVE MEASURES OF CERVICAL CANCER AMONG THE FEMALE POST-GRADUATES IN KURNOOL DISTRICT, ANDHRA PRADESH

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**ABSTRACT** Cervical cancer is the most common cancer among Indian women. A well-proven way to prevent cervical cancer is to have screening tests. Screening is having tests to find conditions that may lead to cancers and can find pre-cancers before they can turn into invasive cancer. The Pap test (or Pap smear) and the human papillomavirus (HPV) test are specific tests used during screening for cervical cancer. If a pre-cancer is found it can be treated, keeping it from turning into a cervical cancer. The science group students (13.85 %) gained in post test excellent improvement (57.57 %). In the post-test majority of the respondents of all ages improved their knowledge on the prevention of cervical cancer.

**KEYWORDS :** Knowledge, Cervical Cancer, Preventive Measures, Female Post-graduates

### INTRODUCTION

Cervical cancer is responsible for 25.9% of all cancer cases and 23.3% of all cancer deaths among Indian women. 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. The cervical cancer still remains the most common cancer affecting most of the Indian women. The cervical cancer can be prevented through screening by identifying as well as treating the precancerous lesions, any time during the course of its long natural history, thus preventing the potential progression to cervical carcinoma. Several screening methods, both traditional and newer technologies, are available to screen women for cervical pre-cancers and cancers. No screening test is perfect and thus the choice of screening test will depend on the setting where it is used. Similarly, several methods are also available to treat cervical pre-cancers and the selection depends on the cost, morbidity, requirement of reliable biopsy specimens and resources available. Several factors increase the risk of cervical cancer. The primary cause is infection with HPV (human papillomavirus), a group of viruses that can infect the cervix. These viruses are quite common as well as passed from person to person through sexual contact. Most adults are infected with HPV at some time in their lives, but most infections clear up on their own. When the infection doesn't go away, it can cause cervical cancer in some women by altering the cells in the cervix. If these abnormal cells are found early, cervical cancer can be prevented by removing or killing the cells before they can develop into cancer.

### REVIEW OF LITERATURE

**Catherine Akorfe Klora (2014)** assessed the awareness of cervical cancer and its prevention among female health professionals in Winneba. In this study, 294 samples were selected from three institutions in Winneba, Ghana and Acera. Structured questionnaire was used to collect the data from samples. The results indicate that 95 per cent were identified vaginal bleeding between periods, 96 per cent persistent vaginal bleeding with unpleasant smell, 96 per cent pain during sex, 50 per cent unexplained weight loss, 46 per cent long term use of oral contraceptives, 65 per cent infection with Chlamydia and 55 per cent were vaccinated. The study concluded that 99 per cent heard about cervical cancer even though there was inadequate awareness about prevention of cervical cancer among women.

**Hanaa et al. (2014)** evaluated the effect of self-learning package based on health belief model on cervical cancer prevention among university female students. The sample is purposive sample and the sample size is 314 married female students and randomly divided into an intervention group (157) and control group (157). The data was collected by using a self-administered questionnaire to assess the student's general characteristics and knowledge regarding cervical cancer prevention, health belief model and intervention to practice cervical cancer prevention behaviour. The results indicate that 38.2 per cent and 53.5 per cent of the intervention group compared with 3.2 per cent and 5.7 per cent of the control group have intention to take HPV

vaccination and do Pap smear respectively. The study suggested to enhance student's knowledge, change positively health beliefs and intention regarding cervical cancer prevention to do self learning package based on health belief.

**Hae Won Kim and Duck Her Kim (2015)** studied on awareness of cervical cancer prevention among 09 mothers with adolescent daughters used convenience sampling in area of Seoul, South Korea. The data was collected by interview method. The adolescent girls are unprepared for cervical cancer prevention due to lack of a mandatory policy regarding cervical cancer. It was concluded that Korean mothers need to be informed the importance of early prevention of cervical cancer in order to enable them to adequately fulfil their vital role in protecting their adolescent daughters against disease and improve their communication regarding the prevention of cervical cancer.

**Aweke and Ayanto (2017)** conducted a study on knowledge, attitude and practice for cervical cancer prevention and control among 583 respondents by using systemic random sampling in area of Hossana town. The pre-test and post-test data was collected by using structured questionnaire. More than 46 per cent of respondents had poor knowledge and 9.9 per cent had been screened for cervical cancer before survey. The result shows that there was a significantly associated factors with not to be screened for the disease. Thus, it is dire essential to integrate cervical cancer prevention strategies with other reproductive health services at all level of health care delivery system.

**Toye et al. (2017)** conducted a study among female, secondary school teachers in Mushin and Lagos by adapting two stage sampling method to assess the knowledge, perception and practice of cervical cancer prevention. Data was collected by using of self-administrative questionnaire. The study result shows that 100 per cent of teachers had knowledge on prevention of cervical cancer, 91.4 per cent had known the method of screening and 2.2 per cent of respondents had HPV vaccine given to their female teenage children. The study concluded that the absence of a national health programme made screening and vaccination not available to the women.

**Lenoir et al. (2017)** conducted a 3-step content analysis of the English tweets tagged Smear For Smear posted on Twitter for the 2015 European Cervical Cancer Prevention Week. Data were collected by using the Twitter application programming interface. The study found that 69.96 per cent of tweets had been posted by people living in the United Kingdom; 57.36 per cent of users were women; 35.99 per cent sex was unknown of cases; 54.44 per cent of the users had posted at least one selfie with smeared lipstick. Non sensitizing tweets were statistically more posted by a non health or non media company (P<001). It also suggests that need to use social marketing to help its dissemination. The clinical impact of this Twitter campaign to increase cervical cancer screening is yet to be evaluated.

**Hariri Swain and Sway am Rangy Parade (2018)** conducted in their quasi experimental study among 40 years women selected randomly to study and to sensitize them on the prevention of cervical cancer. The main finding are that 60.0 per cent of the women are having knowledge on symptoms, 88.0 per cent were having knowledge on prevention, 86per cent were agreed HPV vaccination and 58.31 per cent were supported to HPV vaccination to prevent the cancer. The study concluded that it was only with education intervention may help them to be more aware about protective aspects of cervical cancer.

For the present study the researcher has under taken pre-test and post-test to 354 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.

**RESEARCH METHODOLOGY**

**Table 1 Education and Knowledge of Respondents about Preventive Measures of Cervical Cancer**

Educational Status	Knowledge about preventive measures of Cancer Cervix								x <sup>2</sup> Value Pre-test	x <sup>2</sup> Value Post-test
	Excellent		Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
Science Group	32 (13.85)	133 (57.57)	58 (25.10)	76 (32.90)	79 (34.19)	10 (4.32)	62 (26.83)	12 (5.19)	0.22@	0.05**
M.Com	5 (11.90)	23 (54.76)	7 (16.66)	10 (4.32)	22 (9.52)	3 (7.14)	8 (19.04)	6 (2.59)		
M.A Literature	6 (16.66)	18 (50)	4 (11.11)	12 (33.33)	16 (44.44)	2 (5.55)	10 (4.32)	4 (1.73)		
MBA	4 (8.88)	20 (44.44)	6 (13.33)	10 (22.22)	20 (44.44)	5 (11.11)	15 (32.60)	10 (22.22)		
<b>Total</b>	47 (13.28)	194 (54.80)	75 (21.18)	108 (30.51)	137 (38.7)	20 (5.65)	95 (26.84)	32 (9.04)		

@ Not Significant \*\* Significant at 1 % level  
 Figures in the parenthesis indicate percentage to total

**RESULTS AND DISCUSSION**  
**Educational Status and Knowledge about Preventive Measures of Cervical Cancer**

The table 1 explains about respondents' knowledge with educational status on Preventive measures on cervical cancer.

The table 1 explains that science group students (13.85 %) gained in post test excellent improvement (57.57 %). In other groups like MBA, M.Com and M.A Literature, there is no much improvement as compared with science group. In this context structured teaching

programme is not that much effective in other groups.

**Age and Knowledge about Preventive Measures of Cervical Cancer**

The table 2 explains respondents' knowledge with age about preventive measures of cervical cancer.

**Table 2 Age and Knowledge of Respondents about Preventive Measures of Cervical Cancer**

Age groups (yrs.)	Knowledge about preventive measures of Cancer Cervix								x <sup>2</sup> Value Pre-test	x <sup>2</sup> Value Post-test
	Excellent		Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
20-22	33 (13.69)	152 (63.04)	56 (23.24)	59 (24.48)	101 (41.9)	10 (4.14)	51 (21.16)	20 (8.3)	0.70@	0.00**
23-25	10 (13.33)	20 (26.66)	15 (20)	40 (53.33)	29 (38.67)	5 (6.66)	21 (28)	10 (13.33)		
26-28	4 (11.76)	21 (61.76)	4 (11.76)	8 (23.52)	6 (17.65)	4 (11.76)	20 (58.82)	1 (3)		
29 & >	Nil	1 (25)	Nil	1 (25)	1 (25)	1 (25)	3 (75)	1 (25)		
<b>Total</b>	47 (13.28)	194 (54.80)	75 (21.18)	108 (30.51)	137 (38.7)	20 (5.65)	95 (26.84)	32 (9.04)		

@ Not Significant \*\* Significant at 1 % level  
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considerable percentage of improvement in post-test, i.e. 24.48 per cent; 53.33 per cent and 23.52 per cent of the respondents gained good knowledge about preventive measures of cancer cervix.

The pre-test reveals that major age group was 20-22 years, out of them 13.69 per cent of the respondents had an excellent knowledge; 23.24 per cent had good knowledge; 41.9 per cent had an average knowledge and another 21.16 per cent of the respondents had very poor knowledge about preventive measures of cancer cervix. The Chi<sup>2</sup> analysis reveals a

**Age at Marriage and Knowledge about Preventive Measures of Cervical Cancer**

The table 3 explain respondents with age at marriage about preventive measures of cervical cancer.

**Table 3 Age at Marriage and Knowledge of Respondents about Preventive Measures of Cancer Cervix**

Age at Marriage (yrs.)	Knowledge about preventive measures of Cancer Cervix								2 Value Pre-test	2 Value Post-test
	Excellent		Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
15-18	1 (11.11)	6 (66.67)	1 (11.11)	1 (11.11)	3 (33.33)	Nil	4 (44.44)	2 (22.22)	0.06@	0.01**
19-22	4 (13.33)	11 (36.67)	5 (16.67)	14 (46.67)	12 (40)	1 (3.33)	9 (30)	4 (13.33)		
23-26	2 (8)	19 (76)	1 (4)	1 (4)	8 (32)	Nil	14 (56)	5 (20)		
27 & >	1 (50)	2 (100)	Nil	Nil	Nil	Nil	1 (50)	Nil		
Unmarried	39 (13.54)	156 (54.17)	68 (23.61)	92 (31.94)	114 (39.58)	19 (6.6)	67 (23.26)	21 (7.29)		
<b>Total</b>	47 (13.28)	194 (54.80)	75 (21.18)	108 (30.51)	137 (38.7)	20 (5.65)	95 (26.84)	32 (9.04)		

@ Not Significant \*\* Significant at 1 % level  
 Figures in the parenthesis indicate percentage to total

majority of the respondents of all ages improved their knowledge on the prevention of cervical cancer.

The table depicts that 30 respondents were married in the age group of 19-22 years. The analysis reveals that 4 per cent of the respondents had average knowledge and another 30 per cent with poor knowledge about preventive measures of cancer cervix. The respondent's whose age at marriage was 23-26 years, their levels of knowledge was average (32%) and poor (56%) in the context of pre-test. In the post test

**Marital Status and Knowledge about Preventive Measures of Cancer Cervix**

The following table 4 explain the respondents' knowledge with marital status about preventive measures on cervical cancer.

**Table 4 Marital Status and Knowledge of Respondents about Preventive Measures of Cancer Cervix**

Marital Status	Knowledge about preventive measures of Cancer Cervix								x <sup>2</sup> Value Pre-test	x <sup>2</sup> Value Post-test
	Excellent		Good		Average		Poor			
	Pre	Pos	Pre	Post	Pre	Post	Pre	Post		
Unmarried	40 (13.89)	154 (53.47)	68 (23.61)	99 (34.37)	114 (39.58)	15 (5.20)	66 (22.92)	20 (6.5)	0.95@	0.001**
Married	7 (10.61)	40 (60.60)	7 (10.61)	9 (13.63)	23 (34.85)	5 (7.57)	29 (43.94)	12 (18.18)		
Total	47 (13.28)	194 (54.80)	75 (21.18)	108 (30.51)	137 (38.7)	20 (5.65)	95 (26.84)	32 (9.04)		

@ Not Significant \*\* Significant at 1 % level  
 Figures in the parenthesis indicate percentage to total

knowledge. The Chi<sup>2</sup> analysis reveals that there is a highly significant association between the respondent's marital status and levels of knowledge about preventive measures of cancer cervix in the context of pre-test and it is highly significantly associated in post-test.

The table 4 shows a significant change in the levels of knowledge of the married respondents (60.60 %) acquired an excellent knowledge; 13.63 per cent with a good knowledge and in contrast, among the respondents whose marital status was unmarried, 53.47 per cent of the respondents gained excellent knowledge and 34.37 per cent with a good knowledge in the post-test. But 6.5 per cent and 18.18 per cent of the unmarried and married respondents were at poor level of

**Income Levels and Knowledge about Preventive Measures of Cancer Cervix**

The table 5 explain respondents' knowledge with income level about early diagnosis of cervical cancer.

**Table 5 Income Levels and Knowledge of Respondents about Preventive Measures of Cancer Cervix**

Income levels (Rs.)	Knowledge about preventive measures of Cancer Cervix								x <sup>2</sup> Value Pre-test	x <sup>2</sup> Value Post-test
	Excellent		Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
<5000	5 (12.5)	24 (60)	9 (22.5)	15 (37.5)	22 (55)	NIL	4 (10)	1 (2.5)	0.082@	0.03**
5000-10000	22 (17.46)	67 (53.17)	23 (18.25)	41 (32.54)	56 (44.44)	12 (9.52)	25 (19.84)	6 (4.76)		
11000-15000	11 (11.7)	50 (53.19)	21 (22.34)	26 (27.66)	28 (29.79)	3 (3.19)	34 (36.17)	15 (15.96)		
60000&>	9 (9.57)	53 (56.38)	22 (23.4)	26 (27.66)	31 (32.98)	5 (5.32)	32 (34.04)	10 (10.64)		
Total	47 (13.28)	194 (54.80)	75 (21.18)	108 (30.51)	137 (38.7)	20 (5.65)	95 (26.84)	32 (9.04)		

@ Not Significant \*\* Significant at 1 % level  
 Figures in the parenthesis indicate percentage to total

categories showed almost all equal (53.19 % and 56.38 %) amount of increased knowledge (Excellent) about preventive measures of cervical cancer. The Chi<sup>2</sup> analysis reveals that there is a significant association between the respondent's income levels and their levels of knowledge about preventive measures of cervical cancer in both pre and post-test contexts.

The table 5 represents that 60 per cent of the respondents whose monthly income was less than Rs.5000/- acquired excellent knowledge in the post-test and another 37.5 per cent gained good knowledge about preventive measures of cervical cancer. Further, the respondents belonging to Rs.5000-10000/- monthly family income category showed a considerable change, 53.17 per cent acquired an excellent knowledge and 32.54 per cent gained good knowledge about preventive measures of cervical cancer. The other two high income groups, such as Rs.11000-15000/- and Rs.16000/- and above

**Type of Family and Knowledge about Preventive Measures of Cancer Cervix**

The table 6 explain respondents' knowledge with type of family about preventive measures on cervical cancer.

**Table 6 Type of Family and Knowledge of Respondents about Preventive Measures of Cancer Cervix**

Type of family	Knowledge about preventive measures of Cancer Cervix.								2 Value Pre-test	2 Value Post-test
	Excellent		Good		Average		Poor			
	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
Nuclear	20 (9.34)	120 (56.07)	40 (18.69)	70 (32.71)	85 (39.72)	6 (2.80)	69 (32.24)	18 (8.41)	0.95@	0.005**
Joint	21 (22.11)	50 (52.63)	24 (25.26)	30 (31.57)	35 (36.84)	10 (10.52)	15 (15.79)	5 (5.26)		
Extended	6 (13.33)	24 (53.33)	11 (24.44)	8 (17.77)	17 (37.78)	4 (8.88)	11 (24.44)	9 (20)		
Total	47 (13.28)	194 (54.80)	75 (21.18)	108 (30.51)	137 (38.7)	20 (5.65)	95 (26.84)	32 (9.04)		

@ Not Significant \*\* Significant at 1 % level  
 Figures in the parenthesis indicate percentage to total

cent of the respondents belonging to nuclear families acquired excellent knowledge and 32.71 per cent were with good knowledge about preventive measures of Cervical Cancer. But 52.63 per cent the respondents belonging to joint families acquired good knowledge and

The table 6 portrays that the post-test analysis reveals that 56.07 per

a least (5.26 % percentage were still at poor levels of knowledge. The respondents of extended families earlier in the pre-test they were good (24.44%) and average (37.78%) but in post-test they were excellent (53.33%) and good (17.77%). The Chi<sup>2</sup> analysis reveals significant association between the respondent's type of family and their levels of knowledge about preventive measures in the context of pre-test, but it was highly significant in case of post-test analysis.

## CONCLUSION

Cervical cancer is the fourth most common cancer in women. With a comprehensive approach to prevent, screen and treat, cervical cancer can be eliminated as a public health problem within a generation. In post-test 24.48 per cent; 53.33 per cent and 23.52 per cent of the respondents were gained good knowledge about preventive measures of cancer cervix. There is a highly significant association between the respondent's marital status and their levels of knowledge about preventive measures of cancer cervix are highly significantly associated in post-test. The respondents of Rs.5000-10000/- monthly family income category showed a considerable change, 53.17 per cent acquired an excellent knowledge and 32.54 per cent gained good knowledge about preventive measures of cervical cancer. The respondents belonging to extended families earlier in the pre-test they were good (24.44%) and average (37.78%) but in post-test they were excellent (53.33%) and good (17.77%). It is suggested to give screening on the awareness on the prevention of cancer cervix.

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