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Research Article

Cervical Cancer Prevention

Prevention of Cervical Cancer Among Women Aged 25-40 Years in Gujarat

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Abstract: Cervical cancer cells develop in the area of the uterus that attaches to the vagina or the cervix. Various strains of the human papillomavirus, a sexually transmitted disease, are the primary cause of most cervical cancers (HPV). Therefore, the goal of this study was to protect women between the ages of 25 and 40 from developing cervical cancer. Therefore, this study aimed to prevent cervical cancer in women between the ages of 25 and 40. The aim and objectives of the study is to assess the knowledge regarding the prevention of cervical cancer among women and to assess the significance of the association relationship between post-test knowledge scores." The research design selected for the study was pre-experimental one group pre-test post-test research design". Non-probability convenience sampling technique was used to obtain 60 samples at selected are of Visnagar. Pre-test done by structured knowledge questionnaire, after pre-test sensitization programme given to women. The Ost test is done using the same questionnaire. The data analysis showed that the mean value of the pre-test and post-test was 7.41 and 23.2, respectively, and the pre-test and post-test standard deviation of the value were 3.97. 4.89). The average disparity was (15.79). The estimated "t" value (25.58) was higher than the table value (1.67). This demonstrated that the knowledge levels of women were significantly different between the pre and post-test. Therefore, it is obvious that the sensitization campaign had a beneficial effect on women's knowledge levels. Thus, it was clear that sensitizing programmes had a positive impact on women's knowledge levels.

Keywords: Teaching program, Knowledge, Prevention, cervical Cancer, women

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1. INTRODUCTION

In India, cervical cancer is the most common malignancy and the main factor in cancer mortality, accounting for 23.3% of all cancer-related deaths in females [1]. n India, rural women and those with low socioeconomic status (SES) have considerably higher rates of cervical cancer prevalence and burden [2,3]. Human papillomavirus (HPV) infection is the primary risk factor for cervical cancer development [4]. Hence receiving the HPV vaccine gives protection against cervical cancer [5]. Additionally, precancerous lesion screening lowers the incidence and death of cervical cancer. Although cytology-based screening programmes employing Pap Smears have been demonstrated to be beneficial in wealthy nations [6], alternate screening strategies, such as using either VIA or VILI, can be more effective in environments with limited resources [7]. In 2020, there were 604,127 new instances of cervical cancer in women worldwide, and there were also 341,831 fatal cases. WHO, 2020). The two clinical subtypes of cervical malignancies are Squamous cell carcinoma (SCC), which accounts for 70–80% of cases, and Adenocarcinoma (AC), which occurs in 10%–25% of cases. The rare cervical tumours with a range of histological types make up less than 1% of newly diagnosed cases [8]. In India, 122,844 women receive a cervical cancer diagnosis each year, and 67,477 of them pass away from the condition. There are 432.2 million women in India who are 15 years of age or older and at risk of having cancer. In women between the ages of 15 and 44, it ranks as the second most prevalent malignancy. In South Asia, India also has the highest age-standardized incidence of cervical cancer [22] compared to Bangladesh (19.2), Sri Lanka [13] and Iran (2.8). Therefore, understanding the epidemiology of cervical Cancer in India is crucial [9]. In 2008, there were 275,000 deaths from cervical cancer, the third most frequent malignancy in women worldwide. 8% of these deaths, 159,800 in Asia, occurred in developing nations. 10) India has the highest number of cervical cancer patients worldwide and is home to one in every five women with the disease. 11) The cost of the illness in terms of medical and non-medical expenses and lost productivity is enormous. 12) Age-adjusted incidence rates range from 8.8 per 100,000 women in Thiruvananthapuram to 22.5 per 100,000 women in Aizawl, even though cervical cancer is the most common disease diagnosed in Indian women. 13). The goal of the study is to protect women between the ages of 25 and 40 from developing cervical Cancer.

Table:1 Human papillomavirus subtype classification

S. No	Severity	Classification
1.	High-risk	16, 18, 45, 31, 33, 52, 58, 35, 59, 56, 51, 39, 68, 73, 82
2.	Moderate-risk	26, 53, 66
3.	Mild-risk	6, 11, 40, 42, 43, 44, 54, 61, 70, 72, 81, CP6108

Table: 2 Progenesis of CIN lesion

	Regression	Persistence	Progression to CIN 3	Invasive Cancer
CIN 1	60%	40%	10%	1 %
CIN 2	40%	40%	20%	5%
CIN 3	33%	<56	-	>12%

2. MATERIALS AND METHODS

2.1. Research approach

The research approach used for this study was the quantitative research approach.

2.2. Research Design

The research design selected for the present study was pre-experimental, with one group pre-test and post-test.

2.3. Population

The population selected for the present study comprised 60 women living in the selected area of Visnagar.

2.4. Sampling

A non-probability convenience sampling technique was used for this study.

2.5. Research setting

The study was conducted in the Kansa area of Visnagar.

2.6. Target population

In this study, the target population consisted of all the women who lived in selected rural areas of Visnagar.

2.7. Accessible population

25-40 age group of women of Kansa and Bakarpur at Visanagar taluka.

2.8. Sample size

The sample size comprises 60 women aged 25-40 selected for the pre-experimental group, among these 30 samples from Bakalpur and 30 from Kansa.

2.9. Sampling criteria

Table:3 Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Women who live in rural areas.	Women who are not available during data collection.
Women are willing to participate in the study.	Women who do not know the Gujarati language.
Women who are present during the time of data collection.	

2.10. Description of the instruments

Section I: Demographic variables
Section II: knowledge questionnaire regarding cervical cancer.
Demographic variables:
The Demographic variables in my study are age, religion, educational qualification, type of family, monthly family income in rupees, source of information regarding cervical cancer, and occupational status.

2.11. Development of knowledge questionnaire

A structured knowledge questionnaire focused on knowledge on the prevention of cervical cancer. The main areas are further divided into such as introduction, health effects and control and prevention. Structured knowledge questionnaire consists of total 30 items and each item carries one mark. Maximum score of the questionnaire was 30. Every correct answer was given a score of one, and the wrong answer was given a 0 score. Blueprint for the Structured knowledge questionnaire was prepared.

2.12. Scoring and interpretation

0-10 – In adequate Knowledge
11-20 – Moderate Knowledge
21-30 – Adequate Knowledge

2.13. Data collection process

Formal permission was obtained from the sarpanch of Kansa village at Visnagar. The final study was conducted from Kansa of visnagar. Actual data collection was done on 60 women in the age group [25-40]. The investigator introduced himself and informed the sample about the nature of the study to ensure better cooperation during data collection. The investigator approached the women in the age group [25-40] who met the inclusion criteria. Then the researcher approached the participants in a rural area and explained the purpose of the study and how it would benefit them. Next, the researcher required their willingness to participate in the study and obtain their written consent. Further, the researcher gave a questionnaire for the pre-test to the study accompanied by necessary instruction regarding answering 7th day. Finally, after the data-gathering process, the researcher thanked all participants and the authorities for their cooperation.

2.14. Ethical consideration

Explain the purpose of the study. Informed written consent was obtained from the participants. Full freedom is given to decide whether to participate in the study. The nature of the study was explained to each participant in detail. No physical or psychological harm was produced during the study. Had the right to quit the study at any time during the study.

2.15. Limitation

- Unavailability of sample
- Lack of cooperation from the sample

2.16. Data analysis

"The process of systematically applying statistical and logical techniques to describe, summarises, and compares data."

2.17. Plan of Data Analysis

The Data Obtained Was Analyzed (manually) to achieve the study's objectives using descriptive and inferential statistics.

2.18. Descriptive statistics

Frequency and percentage distribution were used to analyze the demographic variables and assess the knowledge level. In addition, the mean and standard deviation was used to assess the effectiveness of the structured teaching programme on the level of knowledge regarding cervical cancer.

2.19. Inferential Statistics

The paired 't' test was used to compare the experimental group's pre- and post-test levels of knowledge. In addition, the Chi-square test was used to find out the association of the post-test level of knowledge in the experimental group with their selected demographic variable

3. RESULTS

In demographic characteristics, the data shows that 2(3.33%) of women were in the age of fewer than 20 years, 30(50%) between the ages of 21 and 30, 20 (33.33%) in the age of 31-40 years and 8(13.33%) of women old age people were in the age of more than 40 years regards educational qualification 40 (66.66%) of women was literate, 20 (33.33%) were illiterate. s regard to the type of family 44 (73.33%) of women was Nuclear family, and 16(26.66%) of women were joint family. s regard to the source of information 5 (8.33%) of women were sources of information regarding cervical cancer from friends, 3(5%) of women were relatives, 40(66.66%) of women were health personnel, 12(20%) of women were from mass media regards occupational status, 18(30%) of women were occupational status was working women, 42 (70%) women were housewife.

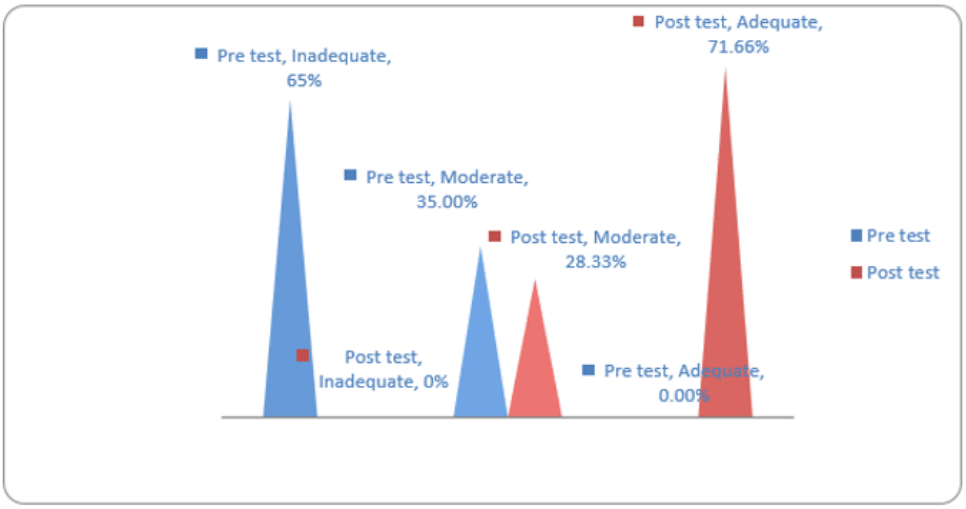

Fig 1: Pre and Post-test level of knowledge among [25-40] age group women.

Figure 1: Demonstrates that 65% of the sample overall had inadequate knowledge, and (35%) had a moderate understanding before the STP was administered. However, the post-test revealed significant improvement in the sample's level of knowledge, with (71.66%) adequate knowledge and (28.33%) moderate knowledge.

Table 4: Mean, Standard Deviation, a difference of mean and 't' value of knowledge before and after sensitizing programme

Parameter	Mean	SD	Mean difference	't' value	Table 't' value	Level of significance
Pre-test	7.41	3.9751	15.79	25.58	1.67	S
Post-test	23.2	4.8982				

Table: 4 The mean of the pre and post-test scores was 7.41 and 23.2, respectively, while the pre and post-standard test deviation scores were 3.97. 4.89). The average disparity was (15.79). The estimated "t" value (25.58) was higher than the table value (1.67). This demonstrated that the knowledge levels of women were significantly different between the pre and post-test. Thus, it was clear that STP positively impacted women's knowledge levels.

Table:5 Association between the post-test level of knowledge among women with their selected demographic variables

Variable	Category	Frequency	Level of knowledge		DF	Table value	Chi-square test	Significant
			Mild	Adequate				
Age	<20	02	1	1	3	7.84	8.86	S
	21-30	30	3	27				
	31-40	20	8	12				
	>40	08	4	4				
Religion	Hindu	55	15	4	1	3.84	0.36	NS
	Muslim	05	2	3				
	Christian	00	0	0				
	Any other	00	0	0				
Education	Literate	40	8	32	1	3.84	4.10	S
	Illiterate	20	9	11				
Type of family	Nuclear	44	11	33	1	3.84	0.90	NS
	Joint	16	6	10				
Monthly income	<5000	20	5	15	3	7.82	0.85	NS
	5001-10000	12	3	9				
	10001-15000	13	5	8				
	>15000	15	4	11				
Source of information	Friends	05	2	3	3	7.82	0.45	NS
	Relatives	03	1	2				
	Education	40	11	29				
	Media	12	3	9				
Occupation	Working women	18	6	12	1	3.84	0.31	NS
	Housewife	42	11	31				

Table 4 chi-square analysis showed a correlation between education and women's knowledge level.

4. DISCUSSION

The current study discovered that women's awareness of cervical cancer was insufficient at the time of the pre-test. A review of research on knowledge, attitudes, and screening practices of women in India confirms his finding. The study comprised 7688 women in total. Participants in the study ranged in age from 12 to 65. only 40% of women generally understand cervical cancer [14]. Another review study discovered that women still lack the requisite knowledge and attitudes regarding cervical cancer screening methods because of India's low literacy rate [15]. However, the current study's findings conflict with a survey of women that found that women generally had a high level of knowledge about preventing cervical cancer. [16] The current study's results demonstrate a substantial variation in women's knowledge levels between the pre-and post-test. After the post-test, it was clear that STP positively impacted women's knowledge levels. Beyond the existing data on preventing squamous cell carcinoma and adenocarcinoma, a further support study demonstrates that cervical screening can effectively lower the incidence of adenosquamous cell carcinoma and invasive cervical carcinoma. The ultimate objective of preventing cervical Cancer is HPV vaccination, which can significantly lower the risk of the disease. [17]The majority of women (81.9% [68/83]) have a limited understanding of cervical cancer and its screening (85.5% [71/83]). But of 83 women, only six had had screening. Even though women had previously interacted with clinicians, neither cervical cancer nor screening was discussed. The women's limited information was derived from the media. .[18] In Malampuzha Panchayat, a funded study revealed that, before the training program, 48.33% of respondents had average knowledge about cervical cancer. In comparison, 51.67% of participants had little to no understanding of the disease. Following the organized training session, 51.67% of the subjects demonstrated a strong understanding of cervical cancer. From the pre-test mean score (12.43) to the post-test mean score, a structured training program significantly improved students' understanding (29.53) [19]. According to research conducted in Wufeng County, China (20, 21), improved education was found to impact the awareness of screening in our study substantially. However, the 5% practise of screening remained relatively the same due to either degree or occupation. Belching and Mbamara in Onitsha, southeast Nigeria, reported a similar link [22]. The fact that a substantial difference could not be detected is likely due to the women's subpar use of screening services. However, research on Tanzanian women in a remote area found that 22.6% had undergone cervical cancer screening [23]. Despite the National Cancer Control Program's debut in India, the participants' information regarding cervical cancer was low. This is likely because primary healthcare institutions are frequently overworked and underfunded [24]. Despite cytology being thought to be a better screening method, VIA is being offered to women for screening between the ages of 30-69 due to a lack of resources [25]. Adopting a nationwide HPV vaccination programme can also lower the high incidence of cervical cancer. Still, due to the exorbitant cost of vaccinations, this is impossible in our country without outside assistance [26]. In conclusion, the community in our study has little understanding of cervical cancer and is not familiar with the idea of prevention. The women's response to NCCP will be better if they are fully informed about cervical cancer, its prevention, and the value of screening. Therefore, the general public needs thorough health education regarding cervical cancer.

5. CONCLUSION

Significant progress has been made in lowering the incidence of cervical cancer. However, a condition that may be treatable and preventative continues to affect women. Women who are lost to screening or receive no screening are still most at risk for developing cervical cancer. Family doctors should therefore continue to exercise caution by performing routine Pap tests on all suitable female patients. In addition, the current study's findings revealed a significant difference in the knowledge levels of women before and after the test. Hence, it is clear that STP positively impacted women's knowledge levels. Thus, it was evident that STP had a beneficial effect on the knowledge levels of women.

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7. AUTHORS CONTRIBUTION STATEMENT

Diya R. Patel conceptualized, designed and gathers data. Then, Siva Subramanian analyzed these data, and inputs were given to B. ahalakshmi and Gopal. Finally, Rohit Divya ganvanth bhai discussed the methodology and results and contributed to the final manuscript.

8. CONFLICT OF INTEREST

Conflict of interest none.

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