

Effect of Video-assisted Education on Cervical Cancer on Learning Outcomes among Married Women in a Selected Anganwadies under Mundur PHC, Palakkad, Kerala

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ABSTRACT

Worldwide, cervical cancer is both the fourth most common cause of cancer and the cause of death from cancer in women. This study was aimed to "Evaluate the effect of video-assisted education on cervical cancer on learning outcomes among married women in selected anganwadies under Mundur PHC". The objectives of the study were to assess the learning outcomes on cervical cancer among married women before video-assisted teaching programme, evaluate the effect of video-assisted education on cervical cancer on learning outcomes among married women, to identify association between the selected demographic variables, and the learning outcomes of married women regarding cervical cancer. The study was conducted at selected anganwadies under Mundur PHC from which 50 married women who satisfied the inclusion criteria were selected by simple random sampling. The research approach was quantitative, and the design adopted was quasi-experimental one-group pre test-post test design structured questionnaire used for assessment of socio-personal variables and learning outcomes regarding cervical cancer after pretesting for the feasibility. Then the video-assisted education on cervical cancer was given to the selected married women. Then the post test was conducted after 7 days. The findings of the study showed that before video-assisted teaching, all the samples had poor knowledge, whereas after video-assisted teaching programme, 96% have adequate knowledge and 4% had moderate knowledge. Similarly, before video-assisted teaching programme, 86% had poor attitude regarding cervical cancer and prevention, and 14% had moderate attitude, whereas after video-assisted teaching programme, 70% gained good attitude and 30% had moderate attitude. A majority of the samples showed moderate practice both before and after video-assisted teaching programme. A majority of subjects are not willing to undergo cervical cancer screening due to the unwillingness of their husbands (60%). 10% subjects think that it is painful and 10% think they are healthy both before and after the video-assisted teaching. The following major characteristics of the samples show that the present study findings emphasize the need for routine screening programmes, health awareness programmes, and promotion of healthy habits of living among married women in the rural communities.

Keywords: cervical cancer, learning outcomes, video-assisted education

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INTRODUCTION

Universally, cervical cancer is the second main cause of death from cancer and the cancer in women. In 2012, a projected 528,000 cases of cervical cancer happened

with 266,000 deaths. This is about 8% of the total cases and total deaths from cancer [1]. About 70% of cervical cancers occur in developing countries. In low-income countries, it is the most mutual cause of

cancer death. In advanced countries, the widespread use of cervical screening agendas has intensely condensed the charges of cervical cancer [2]. Cervical cancer can be detected by cytological study of epidermal cells removed from a cervix in a process known as Pap smear. *Human papillomavirus* (HPV) infection causes more than 90% of cases; cervical cancer typically develops from precancerous changes over 10–20 years. Diagnosis is typically by cervical screening followed by a biopsy [3]. HPV vaccines protect against between two and seven high-risk stresses of this family of whom some may stop up to 90% of cervical cancers. If cervical cancer is detected before invading any surrounding tissues, the five-year survival rate is nearly 100% [4]. Therefore, it is very significant that all women begin getting yearly Pap smears and pelvic examinations at age 21. However, an annual pelvic exam should be sustained even if Pap smears are not given each year. Researchers estimate that non-invasive cervical cancer is nearly four times as likely as invasive cervical cancer.

Need and Significance

Cancer of the cervix has been the most important cancer among women in the past decades. The recent national cancer registry programme indicates between 2009 and 2011. The north-eastern part of India has the highest level cervical cancer in the rate of 23.3%; in Bangalore 18.9% in 2005 [5]; Thiruvananthapuram 9.2% in 2011; 77% in the southern part of India. The district of Tamil Nadu shows a high incidence of cervical cancer.

The high burden of cervical cancer in India is due to lack of screening. The rural population in India is unaware of the health services and screening programmes available in the country. A number of factors may affect the women's ability and desire to participate in cervical cancer prevention programme [6]. Strategies for

introducing or strengthening cervical cancer prevention programme must focus on ensuring appropriate cost-effective services are available; if not realized, cervical cancer prevention programme will not achieve the necessary levels of coverage that are required to reduce the overall disease burden [7]. Hence, the researchers decided to conduct a study on cervical cancer to educate the women on prevention of cervical cancer by using the video-assisted education to rule out the effectiveness before and after administration, on knowledge, attitude, practice, and perceived barriers for screening (learning outcomes) on cervical cancer among women of reproductive age in the selected anganwadies under Mundur PHC of Palakkad District [8].

Statement of the Problem

A study to evaluate the effect of video-assisted education on cervical cancer on learning outcomes among married women in a selected anganwadies under Mundur PHC.

Objectives

- Assess the learning outcomes on prevention of cervical cancer among married women before video-assisted teaching programme.
- Evaluate the effect of video-assisted education on learning outcomes regarding cervical cancer among married women after video-assisted teaching programme.
- To identify the association between the selected demographic variable and the learning outcomes of married women regarding cervical cancer.

Conceptual Framework

The theoretical frameworks are inter-related concepts that assembled together in some rational scheme by virtue of their relevance to a common theme [9]. The conceptual framework is to stimulate research and the extension of the knowledge by providing both directions and inputs. The present study is focused on

assessing the effectiveness of video-assisted education on prevention of cervical cancer on learning outcomes among married women in a selected *anganwadi* under Mundur PHC. According to Nola J Pender, a health promotion model was designed to be a complimentary counterpart to models of health protection. It defines health as a positive dynamic state, not merely the absence of disease [10].

REVIEW OF LITERATURE

Knowledge of Cervical Cancer

Cancer of the uterine cervix is one of the leading cancer among women worldwide, with an estimated 520,000 new cases and 274,000 deaths reported annually (WHO/ – HPV and cervical cancer statistics in India, 2010). About 86% of the cervical cancer cases happen in emerging countries, which signifies 13% of all female cancers (WHO/ICO information centre on HPV and cervical cancer statistics in India, 2010) [11].

A cross-sectional interview-based study was conducted by Aruna devi and Geetha Prasad in May 2015. Two hundred women attending a clinic were asked to complete a questionnaire assessing cervical cancer awareness conducted at Karpagavinayaga Institute of Medical Science and Research Centre. The results were that only 38% of respondents were aware that cervical cancer is the most common cause of gynaecological cancer; 63% were aware that infection is the most common cause of cervical cancer; 49% said that virus is the cause; and 16% said that *Human papillomavirus* was the cause of cervical cancer [12].

A study was conducted by S. Abhirami, Assistant Professor, Raja Lakshmi College of Chennai, among the women in 2014. The objective was to assess the risk factor

of cervical cancer among women. A descriptive research design was adopted for this study. The study was conducted in Irungattukottai Village, Kanchipuram District, Tamil Nadu. The findings of the study revealed that 65% of women had low risk, 30% had moderate risk, and 5% had high risk [13].

Attitude and Practice Related to Cervical Cancer and Its Prevention

S. Chopra conducted a cross-sectional study among 300 women in the obstetrics and gynaecology outpatient clinic in a selected hospital at Uttar Pradesh. The research shows that 12%–22% correctly answered the question, but 53% had a positive attitude towards HPV vaccination. Age, marital status, and level of education were significantly associated with this attitude. Kharthar conducted a study on screening for cervical cancer samples, who were women of 15–70 years and sample size 50 [14].

Effect of Video-Assisted Teaching on Cervical Cancer and Its Prevention

A study was conducted by ESI Hospital, New Delhi (2012), on the effect of structured teaching programme on Visual Inspection with Acetic Acid (VIA) test for early detection and diagnosis of cervical cancer [15]. The study population comprised community health workers working in a selected centre in Najafgarh, Delhi. They selected a sample of 30 community health workers. The results were that no community health workers had in-service education on VIA test. The mean pretest knowledge score was 23.23 and the range of possible score was between 0 and 40 indicating that there was knowledge deficit regarding VIA test [16].

A Focus Group Approach

The purpose of this research was to gain an understanding of Indian women's knowledge about cervical cancer, and to identify major barriers to early screening

for cervical cancer and the motivators for prevention and early detection. It is hoped that the findings will guide the development of community-based cervical cancer education and screening programmes for adult Indian women. Focus group discussions revealed that there was misinformation and a lack of knowledge about cervical cancer [17]. The findings showed that major structural barriers were economic and time factors along with language problems. Many participants were recent immigrants with no medical insurance and long work hours. The main psychosocial barriers were fear/fatalism, denial, and Participants stated that medical advice and education would influence them the most to undergo a Pap test. Recommendation was made to reduce certain barriers and to increase knowledge and motivations [18].

METHODS

Research Approach

The primary objective of the study is to identify the effectiveness of video-assisted preventive education programme on the knowledge of prevention of cervical cancer among married women.

Research Design

The quasi-experimental, one-group pretest–posttest design was adopted.

The pre test was done on the selected samples by using a tool, and then video-assisted preventive education was conducted, after teaching programme knowledge is tested by using the same tool with the interval of 7days.

Setting of the Study

The study was conducted in the selected anganwadies under Mundur PHC. The married women of aged 18–45 years are considered.

Population of the Study

In this study, the population includes the married women who belong to the age

group of 18–45 years, who meet the inclusion criteria.

Sampling Technique

Random sampling technique by lottery method is used to select 50 women of reproductive age who falls in the age group of 18–45 years.

Data Collection Methods

After obtaining the informed consent, the investigators selected the married women from selected *anganwadies* under Mundur PHC by using probability simple random sampling technique. A total of 50 women were selected. A written consent was taken from each subject and assured the confidentiality of the information. The objectives of the study were explained, since there is a randomization and a pretest before intervention and posttest after intervention. During the data collection period, the investigator administered the tool for the married women before and after the video-assisted teaching to assess the knowledge, attitude, practice, and the perceived barriers for screening regarding the prevention of cervical cancer.

RESULTS

The data collected from 50 married women aged between 18 and 45 years before and after video-assisted teaching programme were tabulated, analysed, and interpreted using descriptive and inferential statistics.

The analysed data are presented under the following headings:

Section 1: Sample characteristics.

Section 2: Pre test and post test knowledge of subjects.

Section 3: Effect of video-assisted teaching programme on knowledge, attitude, practice, and perceived barriers regarding the prevention of cervical cancer among married women.

Section 1: Sample Characteristics This section deals with baseline variables of research participants.

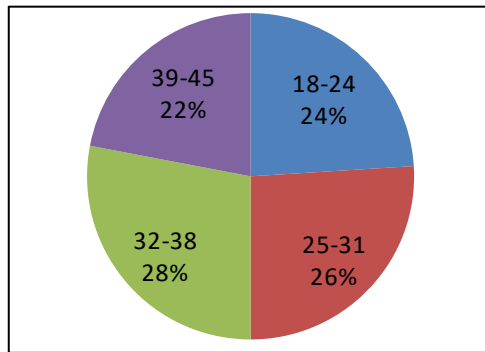


Fig. 1. Distribution of subjects based on age.

Figure 1 shows that the majority of the samples fall under the age group of 32–38 years.

Table 1. Distribution of subjects based on education.

Education	Frequency	Percentage
Illiterate	1	2%
Primary education	21	42%
Secondary education	20	40%
College education	8	16%

Table 1 shows that the majority of subjects have primary education (42%).

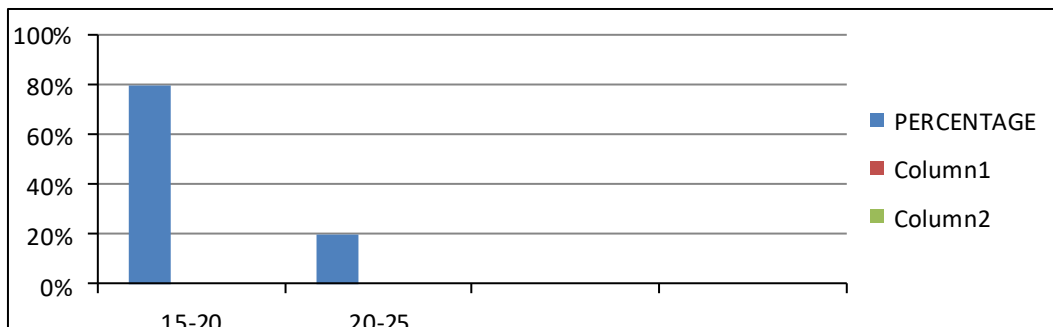


Fig. 2. Distribution of subjects based on age of marriage.

Figure 2 shows that the majority of subjects are married at the age of 15–20 years (80%).

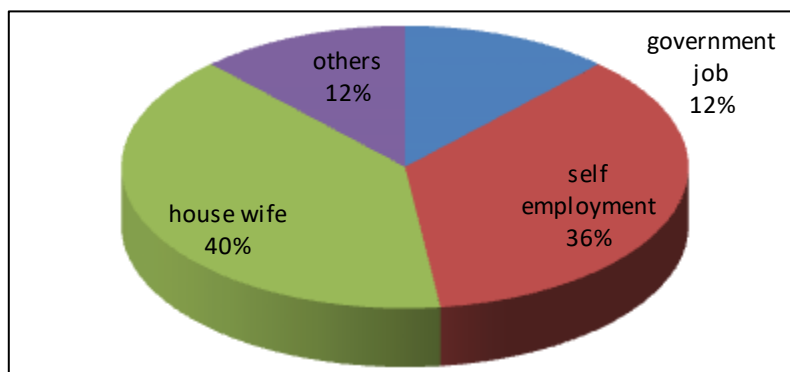


Fig. 3. Distribution of subjects based on occupation.

Figure 3 shows that the majority of subjects are housewives (40%).

Table 2. Distribution of subject based on the number of children.

Number of children	Frequency	Percentage
No children	10	20%
1–2 children	19	38%
3–4 children	19	38%
5 children	2	4%

Table 2 shows that 38% of subjects have 1–2 children and 3–4 children.

Table 3. Distribution of subjects based on use of contraceptives.

Use of contraceptives	Frequency	Percentage
Yes	6	12%
No	44	88%

Table 3 shows that the majority of subjects are not using contraceptives (88%).

Section 2: This section deals with the Level of Knowledge, Attitude, and Practice before and after the video teaching programme on cervical cancer

Table 4 shows that 100% of subjects have poor knowledge before video-assisted teaching, whereas after video-assisted teaching programme, 96% gained adequate knowledge.

Table 4. Distribution of subjects based on the level of knowledge.

Level of knowledge	Score range	Before video-assisted teaching programme		After video-assisted teaching programme	
		Frequency	Percentage	Frequency	Percentage
Poor knowledge	0–5	50	100%	0	0%
Moderate knowledge	6–11	0	0%	2	4%
Adequate knowledge	12–17	0	0%	48	96%

Table 5. Distribution of subjects based on level of attitude.

Level of attitude	Score range	Before video-assisted teaching programme		After video-assisted teaching programme	
		Frequency	Percentage	Frequency	Percentage
Poor attitude	10–20	43	86%	0	0%
moderate attitude	21–31	7	14%	15	30%
Good attitude	32–42	0	0%	35	70%

Table 6. Distribution of subjects based on level of practice.

Level of practice	Score range	Before video-assisted teaching programme		After video-assisted teaching programme	
		Frequency	Percentage	Frequency	Percentage
Poor practice	0–2	0	0%	0	0%
Moderate practice	3–5	50	100%	50	100%
Good practice	6–8	0	0%	0	0%

Table 5 shows that 86% have poor attitude, 14% have moderate attitude before video-assisted teaching programme, whereas after video-assisted teaching programme, 30% have moderate attitude and 70% have good attitude.

Table 6 shows that 100% have moderate practice both before and after video-assisted teaching programme. From these findings it is well understood that there is no significant change in practice occurred in the subjects.

Section 3: Effectiveness of Video-Assisted Teaching Programme on Level of Knowledge, Attitude and Practice

Table 7 reveals that there is a significant difference of knowledge score before and after video-assisted teaching programme. Since the calculated value of the t lies in the critical region at 0.02 level of significance and research hypothesis is accepted and it is interpreted that the mean level of knowledge after video-assisted programme is significantly higher than the mean level of knowledge before video-assisted teaching programme, which means post test is effective.

Table 8 reveals that there is a significant difference of attitude score before and after video-assisted teaching programme. Since the calculated value of the *t* lies in the critical region at 0.05 level of significance and research hypothesis is accepted and it is interpreted that the mean level of attitude after video-assisted programme is significantly higher than the mean level of attitude before video-assisted teaching programme. That means the post test is effective. Table 9 reveals that there is a minute difference of practice score before and after video-assisted teaching programme. Since the *t*-value is less than the table value, there is not much significant difference between practice and video-assisted teaching programme.

Table 10 shows that the majority of subjects are not willing to undergo cervical

cancer screening due to the unwillingness of their husbands (60%) and 10% of subjects think that it is painful and 10% think that they are healthy.

Section 4: Association between Knowledge and Selected Socio-personal Variables

The calculated chi-square value is much higher than the table value (Table 11). Hence, the difference between the observed and expected frequencies is significant. It shows that the age is dependent on the level of knowledge. The calculated value is much higher than the table value (Table 12). Hence, the difference between observed and expected frequencies is significant; thereby it shows that education is dependent of the level of knowledge.

Table 7. Difference in the mean level of knowledge of samples before and after video-assisted teaching programme.

Learning outcome	Before video-assisted teaching programme		After video-assisted teaching programme		t-Value	P-value
	Mean	SD	Mean	SD		
Knowledge score	2.18	1.31	14.06	1.41	6.18	1.68

Table 8. Difference in the mean level of attitude of samples before and after video-assisted teaching programme.

Learning outcome	Before video-assisted teaching programme		After video-assisted teaching programme		t-Value	P-value
	Mean	SD	Mean	SD		
Attitude	16.46	4.44	34.18	3.65	3.08	1.68

Table 9. Difference in the mean level of practice of samples before and after video-assisted teaching programme.

Learning outcome	Before video-assisted teaching programme		After video-assisted teaching programme		t-Value	P-value
	Mean	SD	Mean	SD		
Practice	3.26	0.43	4.18	0.37	1.67	1.68

Table 10. Difference in the perceived barriers for screening in prevention of cervical cancer before and after video-assisted teaching programme.

Perceived barriers	Before video-assisted teaching programme		After video-assisted teaching programme	
	Frequency	Percentage	Frequency	Percentage
My husband would not agree	30	60%	30	60%
It may be painful	10	20%	10	20%
I am healthy	10	20%	10	20%

Table 11. Association between level of knowledge and age.

Variable	Chi square value	't' value	P value
Age	12.3	6.18	7.82

Table 12. Association between the level of knowledge and education.

Variable	Chi-square value	t-Value	P-Value
Education	14.4	7.32	8.41

Table 13. Association between level of knowledge and occupation.

Variable	Chi-square value	t-Value	P-value
Occupation	10.4	5.24	6.38

The calculated chi-square value is much higher than the table value (Table 13). Hence, the difference between the observed and expected frequencies is significant. It follows that occupation is dependent on the level of knowledge.

DISCUSSION

The study is an attempt towards evaluating the effectiveness of video-assisted teaching programme among the married women who belongs to the age group of 18–45 years with an aim to improve their knowledge regarding the prevention of cervical cancer. The role of nursing professionals is crucial in giving health education and creating awareness among the community. The nurses must possess the vital role in educating the women at community and colleges. They must be helped to break the chain of embarrassment and develop awareness among themselves and give importance to their reproductive health.

CONCLUSION

In the light of the present study, the following conclusions can be drawn up:

- Lack of knowledge regarding the prevention of cervical cancer is the main factor contributing to the development of cervical cancer among married women.
- There is a significant association between age and knowledge.

- Most of the women have very limited knowledge about cervical cancer.
- Video-assisted teaching programme is effective in improving the knowledge, and attitude regarding cervical cancer and less effective in improving practice.

NURSING IMPLICATIONS

The findings of the study opened a great challenge to healthcare delivery system; it also has an implication in the nursing practice, nursing education, nursing administration, and nursing research.

NURSING PRACTICE

The findings of the present study emphasize the need for screening programme among married women. Also, the findings flash light to the importance of periodic evaluation of the knowledge, practice, and attitude regarding the prevention of cervical cancer and video-assisted teaching programme for improving the knowledge, attitude, and practice needs to be conducted. Nurses can follow a collaborative approach and take charge of health clinics and take initiative for screening programme, health counselling, and organizing awareness programme to promote the knowledge for the prevention of cervical cancer. Health education is one of the most important roles of the nurses in both community and hospital settings.

NURSING EDUCATION

With the changing trend in health care, nursing education must emphasize primary healthcare approach focusing on prevention than cure. Nursing curriculum should be equipped with knowledge and skill to prepare prospective nurses to assist the married women of community in developing their own potential in preventing cervical cancer.

NURSING ADMINISTRATION

The findings of the present study emphasize the need for screening programmes,

awareness programme, establishment of health clinic, etc. The staff development and in-service education programme should be given to the hospital nurses as well as the grass-root level of community workers (JPHNs, Anganwadi worker and ASHA workers). The members should disseminate this knowledge to the married women in the community.

NURSING RESEARCH

The nurse should conduct the research on knowledge regarding the effectiveness of video-assisted teaching programme on the prevention of cervical cancer. Only few studies were conducted on assessment of learning outcomes regarding the prevention of cervical cancer. The present study reveals a clear picture in improvement of knowledge and attitude regarding cervical cancer.

RECOMMENDATIONS OF THE STUDY

- A similar study can be replicated on a large sample thereby findings can be generalized for a large population of married women.
- A comparative study to assess the knowledge of prevention of cervical cancer among married and unmarried women can be done.
- An experimental study may be conducted to evaluate the effectiveness of self-instructional module on learning outcome regarding the prevention of cervical cancer.

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