

A Study to Evaluate the Effectiveness of Healthy Living Education Regarding the Knowledge, Attitude and Practice of Cervical Cancer Screening and its Associated Risk Factors among Married Women Attending NCD Clinics at Government Head Quarters Hospital Cuddalore

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Abstract: *Cervical cancer remains a major public health issue, yet screening uptake is low due to limited awareness, misconceptions, and accessibility challenges. This study assessed the effectiveness of Healthy Living Education in improving knowledge, attitude, and practice (KAP) regarding cervical cancer screening among women attending the Non-Communicable Disease (NCD) Clinic at Government Headquarters Hospital, Cuddalore. A quasi-experimental one-group pretest-posttest design was employed with 60 married women. Baseline KAP was measured using a structured questionnaire, followed by an interactive educational intervention focusing on cervical cancer risk factors, benefits of screening, and strategies to overcome barriers. Post-test assessments were conducted to evaluate changes in KAP, and data were analyzed using paired t-tests for effectiveness and chi-square tests for associations with demographic variables. Results indicated a significant increase in mean KAP scores post-intervention, reflecting improved awareness and willingness to undergo screening. Demographic factors such as age, education level, and prior screening experience were found to be significantly associated with post-test KAP levels. The findings demonstrate that Healthy Living Education is effective in enhancing women's knowledge, attitude, and practice regarding cervical cancer screening. The study highlights the importance of sustained and repeated health education programs in improving screening uptake and reducing the burden of cervical cancer, while also emphasizing the need for future research to explore long-term behavioral changes and adherence to screening practices.*

Keywords: Cervical cancer screening, Knowledge, Attitude, Practice, Health education, Quasi-experimental study, Women's health

1. Introduction

Cervical cancer is the fourth most common cancer among women globally, with over 660,000 new cases and 350,000 deaths reported in 2022, most occurring in low- and middle-income countries. Persistent infection with high-risk human papillomavirus (HPV), particularly types 16 and 18, accounts for nearly 70% of cases. Despite the availability of effective screening methods such as Pap smear, HPV DNA testing, and visual inspection with acetic acid, screening coverage in India remains low.

In Tamil Nadu, only around 10% of eligible women have undergone screening, reflecting gaps in awareness, cultural barriers, and healthcare access. Previous studies show that although awareness is increasing, negative attitudes and misconceptions hinder screening practices. Women often perceive screening as unnecessary or fear a cancer diagnosis.

Given these challenges, health education has been identified as an effective intervention to bridge the knowledge-practice gap. This study evaluates the effectiveness of Healthy Living Education in improving KAP toward cervical cancer screening among married women attending an NCD clinic in Cuddalore.

2. Methods

Study Design and Setting: A quasi-experimental one-group pretest-posttest design was adopted at the NCD Clinic, Government Headquarters Hospital, Cuddalore.

Participants: Sixty married women aged 25–50 years who attended the NCD clinic and consented to participate were recruited through purposive sampling. Women with prior detailed knowledge of cervical cancer screening or unwilling to participate were excluded.

Data Collection Tool: A structured tool was used comprising demographic and clinical variables, 20 multiple-choice questions on knowledge, 5-point Likert scale items for attitude, and practice-related questions.

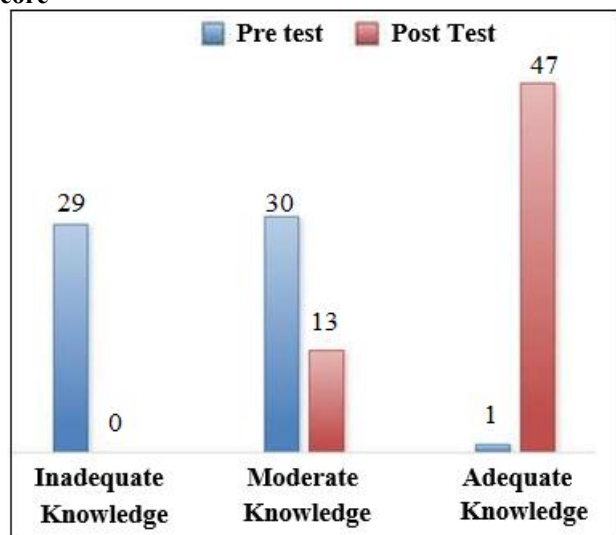
Intervention: Participants attended an interactive Healthy Living Education session focusing on cervical cancer risk factors, benefits of early screening, available methods, and overcoming barriers.

Data Analysis: Paired t-tests assessed pre- and post-test differences in KAP, and chi-square tests determined associations between demographic variables and post-test KAP levels. A p-value <0.05 was considered significant.

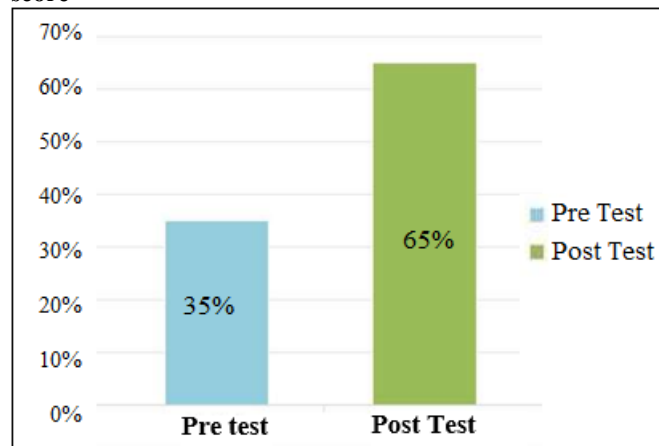
3. Results

- 1) **Participant Characteristics:** Most participants were aged 30–35 years (38%), Hindu (67%), and from nuclear families (60%). About 35% had only primary education, and 85% had never undergone cervical cancer screening before.
- 2) **Knowledge:** In the pretest, 48% had inadequate knowledge, 50% had moderate knowledge, and only 2% had adequate knowledge. After the intervention, 78% demonstrated adequate knowledge, with none in the inadequate category ($p < 0.001$).
- 3) **Attitude:** Prior to the intervention, 54% of women expressed negative attitudes toward screening, and only 13% showed positive attitudes. Post-intervention, 52% demonstrated positive attitudes and 30% were neutral ($p < 0.001$).
- 4) **Practice:** At baseline, only 35% reported good screening-related practices. After the intervention, 54% reported improved willingness and readiness to undergo screening ($p < 0.01$).
- 5) **Associations:** Post-test KAP levels were significantly associated with age, education level, and prior screening history ($p < 0.05$).

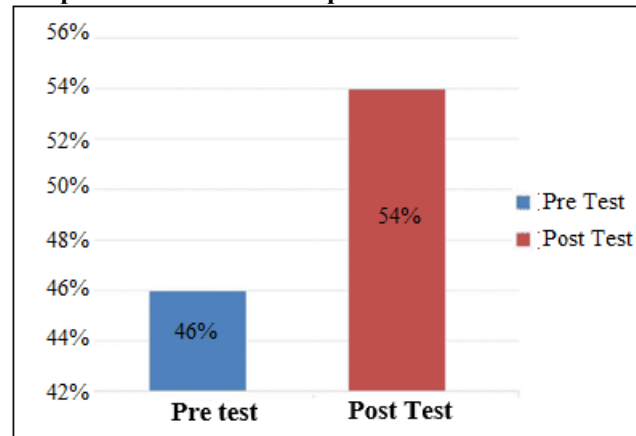
Comparison of Pre-test and post – test level of knowledge score



Comparison of Pre-test and post – test level of practice score



Comparison of Pre-test and post – test level of attitude



4. Discussion

The findings demonstrate that Healthy Living Education significantly improved knowledge, attitudes, and practices related to cervical cancer screening among married women in Cuddalore. These results align with studies from other regions in India, which report low baseline awareness but significant improvements following educational interventions.

The marked shift in attitude and practice highlights the importance of addressing cultural barriers, fear, and misconceptions through structured education. The association of higher KAP with education and prior screening experience underlines the role of targeted interventions for less educated and previously unscreened women.

Despite limitations such as the small sample size and absence of a control group, this study reinforces the potential of community-based health education in increasing screening uptake. Sustained and repeated interventions are necessary to ensure long-term behavioral change.

5. Conclusion

Healthy Living Education effectively enhanced women's knowledge, attitude, and practice regarding cervical cancer screening at the NCD clinic in Cuddalore. Given the high preventability of cervical cancer, integrating regular health education into clinic services can significantly increase screening participation and reduce disease burden.

6. Nursing Implications

- **Nursing Education:** Training nurses as educators can empower them to promote cervical cancer awareness.
- **Nursing Practice:** Nurses can act as primary motivators for women in both community and hospital settings.
- **Nursing Administration:** Support for structured health education programs should be integrated into NCD clinics.
- **Nursing Research:** Larger studies with control groups and longitudinal follow-up are needed to validate long-term effectiveness.

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