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Research Article

A Study to Assess the Level Of Knowledge Regarding Cervical Cancer Among Women In Middle Adulthood In A Selected Community.

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Abstract:

Background: Cervical cancer is largely preventable through HPV vaccination, routine screening, detection, and timely treatment. Inadequate knowledge of risk factors, symptoms, screening, and preventive measures may contribute to delayed healthcare-seeking and diagnosis. Women in middle adulthood are important for strengthening cervical cancer awareness and preventive practices. **Aim:** To assess the level of knowledge regarding cervical cancer among women in middle adulthood and determine the association between knowledge level and selected demographic variables. **Methods:** A quantitative descriptive research design was adopted among 60 women aged 35–50 years in a community in Alandur, Chennai. Participants were selected using convenience sampling. Data were collected using a structured questionnaire covering demographic variables and knowledge regarding causes, risk factors, symptoms, prevention, and screening. Data were analyzed using frequency, percentage, mean, standard deviation, and Chi-square test. **Results:** Among 60 participants, 35 (58.3%) had moderately adequate knowledge, 15 (25.0%) had inadequate knowledge, and 10 (16.7%) had adequate knowledge. Hospitals/doctors were the source of information (46.7%), while 85.0% had not attended cervical cancer counseling. Education ($\chi^2 = 19.429$, $p = 0.003$) and monthly income ($\chi^2 = 18.464$, $p = 0.005$) showed significant associations with knowledge level. Other demographic variables were not significantly associated ($p > 0.05$). **Conclusion:** Most women had moderately adequate knowledge, indicating the need for health education, counseling, and screening awareness to strengthen prevention and detection.

Keywords: Cervical cancer, knowledge, screening, prevention, health education, counseling.

INTRODUCTION

Cervical cancer is a major health problem among women and remains an important cause of cancer-related morbidity and mortality, particularly in low- and middle-income countries. It develops from abnormal cellular changes in the cervix and usually progresses gradually from precancerous lesions to invasive disease. Persistent infection with high-risk Human Papillomavirus (HPV), especially HPV-16 and HPV-18, is the principal cause. Other factors associated with increased risk include early marriage and childbearing, multiple pregnancies or sexual partners, smoking, poor genital hygiene, long-term oral contraceptive use, reduced immunity, and limited access to healthcare.

Cervical cancer is largely preventable through HPV vaccination, regular screening, early identification of precancerous changes, and appropriate treatment. In India, these challenges continue to contribute to a considerable cervical cancer burden, particularly among women in underserved communities.

Women in middle adulthood constitute an important group for cervical cancer prevention. Family responsibilities, limited health awareness, cultural beliefs, and inadequate screening practices may cause women to overlook their own health needs. Knowledge regarding risk factors, symptoms, screening, vaccination, and preventive measures can encourage timely healthcare-seeking and improve participation in screening programs.

Nurses and community health professionals have an important role in cervical cancer prevention through health education, counseling, screening promotion, vaccination awareness, and timely referral.

Cervical cancer is primarily associated with persistent high-risk HPV infection and remains a significant cause of cancer-related illness and death among women. Although vaccination, screening, and early treatment can substantially reduce its occurrence and complications, inadequate awareness and limited access to preventive services continue to create challenges.

NEED FOR THE STUDY

Globally, cervical cancer remains one of the most common cancers affecting women, with a greater burden in countries where screening and treatment services are limited. The WHO promotes cervical cancer elimination through HPV vaccination, regular screening, early diagnosis, and timely treatment.

India contributes substantially to the global cervical cancer burden. Inadequate awareness, low screening uptake, social stigma, financial barriers, and limited use of preventive services contribute to late presentation. Although Pap smear, Visual Inspection with Acetic Acid (VIA), and HPV testing are available, their utilization remains inadequate in many communities.

In South India, including Tamil Nadu, awareness regarding HPV, vaccination, screening, risk factors, symptoms, and preventive practices remains insufficient among some women, particularly those from rural, semi-urban, and economically disadvantaged communities. Fear, embarrassment, misconceptions, and the absence of noticeable symptoms may further discourage screening. Improving awareness may promote regular screening, recognition of symptoms, preventive practices, and timely

AIM

To assess the level of knowledge regarding cervical cancer among women in middle adulthood and to determine the association between knowledge level and selected demographic variables.

MATERIAL AND METHODS

A quantitative research approach with a descriptive research design was adopted to assess the level of knowledge regarding cervical cancer among women in middle adulthood. The study was conducted in a selected community in Alandur, Chennai, among women aged 35–50 years. A sample of 60 women was selected using non-probability convenience sampling. Women who were available and willing to participate were included, while those who were seriously ill or unwilling to participate were excluded.

Data were collected using a structured questionnaire developed by the investigator based on relevant literature and expert consultation. Data were collected through the structured questionnaire after explaining the purpose and procedure of the study. The collected data were analyzed.

RESULT

Table 1 indicates that, of the 60 women, the largest proportion belonged to the 41–45-year age group (35.0%), followed by those aged 35–40 years (28.3%). In terms of education, 40.7% had completed high school. Homemakers constituted 46.7% of the participants, and half (50.0%) reported a monthly income below ₹10,000. Hospitals/doctors were the most common source of cervical cancer information (46.7%), followed by TV/radio (36.6%). Regarding marital status, 61.7% were married and 21.7% were widows. Most participants (85.0%) had never attended cervical cancer counseling.

Table 2 shows that 35 (58.3%) women had moderately adequate knowledge regarding cervical cancer. In comparison, 15 (25.0%) had inadequate knowledge, while only 10 (16.7%) demonstrated adequate knowledge.

Table 3 demonstrates that educational status ($\chi^2 = 19.429$, $p = 0.003$) and monthly income ($\chi^2 = 18.464$, $p = 0.005$) had a statistically significant association with cervical cancer knowledge at the 0.05 significance level. No significant association was identified between knowledge level and the other selected demographic variables ($p > 0.05$).

DISCUSSION

The present study found that 58.3% of women had moderately adequate knowledge regarding cervical cancer, while 25.0% had inadequate knowledge and only 16.7% had adequate knowledge, indicating a gap in comprehensive awareness. Education ($\chi^2 = 19.429$, $p = 0.003$) and monthly income ($\chi^2 = 18.464$, $p = 0.005$) were significantly associated with knowledge, suggesting that educational and socioeconomic factors may influence access to and understanding of cervical cancer information. Although hospitals/doctors were the major source of information (46.7%), 85.0% of women had never attended cervical cancer counseling, highlighting the need for structured health education and counseling to improve knowledge regarding prevention and early detection.

CONCLUSION

The study concluded that the majority of women in middle adulthood had moderately adequate knowledge regarding cervical cancer, while only a small proportion had adequate knowledge. Education and monthly income were significantly associated with knowledge levels, indicating the influence of educational and socioeconomic factors on cervical cancer awareness. The findings emphasize the need for strengthening cervical cancer education, counseling, prevention, and early detection among women in middle adulthood.

RECOMMENDATIONS

Regular cervical cancer awareness and screening programmes should be conducted for women in middle adulthood, with greater emphasis on women from lower educational and socioeconomic backgrounds. Nurses and healthcare professionals should provide structured counseling on risk factors, prevention, screening, and early detection. Community-based education through healthcare facilities and accessible media should also be strengthened to improve awareness and encourage timely screening.

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Table 1: Distribution of demographic variables of the women in middle adulthood. N = 60

Demographic Variables	F	%
Age (in years)		
35 – 40	17	28.3
41 – 45	21	35.0
46 – 50	13	21.7
51 – 55	9	15.0
Education		
Primary school	14	23.3
High school	28	40.7
Higher secondary	14	23.3
College	4	6.7
Occupation		
Homemaker	28	46.7
Coolie / Daily worker	22	36.6
Private work	10	16.7
Government work	-	-
Monthly income		
< ₹10,000	30	50.0
₹10,000–20,000	24	40.0
₹20,000–30,000	5	8.3
> ₹30,000	1	1.7
Where did you hear about cervical cancer?		
Hospital/Doctor	28	46.7
TV/Radio	22	36.6
Friends/Family	7	11.7
Internet/Social media	3	5.0
Marital status		
Married	37	61.7
Unmarried	5	8.3
Widow	13	21.7
Divorced	5	8.3
Do you have attended any counseling about cervical cancer		
Yes	9	15.0
No	51	85.0

Table 2: Frequency and percentage distribution of knowledge regarding cervical cancer among women in middle adulthood. N=60

Level of knowledge	F	%
Inadequate (0 – 6)	15	25.0
Moderately adequate (7 – 12)	35	58.3
Adequate (13 – 18)	10	16.7

Table 3: Association of knowledge regarding cervical cancer among women in middle adulthood with their selected demographic variables.

Demographic Variables	Inadequate		Moderately Adequate		Adequate		Chi-Square Test & p-value
	F	%	F	%	F	%	
Age (in years)							$\chi^2=8.145$ d.f=6 p=0.228 N.S
35 – 40	6	10.0	6	10.0	5	8.3	
41 – 45	3	5.0	14	23.3	4	6.7	
46 – 50	4	6.7	8	13.3	1	1.7	
51 – 55	2	3.3	7	11.7	0	0	
Education							$\chi^2=19.429$ d.f=6 p=0.003 S*
Primary school	1	1.7	11	18.3	2	3.3	
High school	9	15.0	18	30.0	1	1.7	
Higher secondary	5	8.3	5	8.3	4	6.7	
College	0	0	1	1.7	3	5.0	
Occupation							$\chi^2=8.577$ d.f=4 p=0.073 N.S
Homemaker	3	5.0	21	35.0	4	6.7	
Coolie / Daily worker	8	13.3	11	18.3	3	5.0	
Private work	4	6.7	3	5.0	3	5.0	
Government work	-	-	-	-	-	-	
Monthly income							$\chi^2=18.464$ d.f=6 p=0.005 S*
< ₹10,000	2	3.3	23	38.3	5	8.3	
₹10,000–20,000	8	13.3	11	18.3	5	8.3	
₹20,000–30,000	4	6.7	1	1.7	0	0	
> ₹30,000	1	1.7	0	0	0	0	
Where did you hear about cervical cancer?							$\chi^2=7.575$ d.f=6 p=0.271 N.S
Hospital/Doctor	3	5.0	19	31.7	6	10.0	
TV/Radio	8	13.3	10	16.7	4	6.7	
Friends/Family	3	5.0	4	6.7	0	0	
Internet/Social media	1	1.7	2	3.3	0	0	
Marital status							$\chi^2=11.061$ d.f=6 p=0.087 N.S
Married	6	10.0	23	38.3	8	13.3	
Unmarried	2	3.3	2	3.3	1	1.7	
Widow	7	11.7	6	10.0	0	0	
Divorced	0	0	4	6.7	1	1.7	
Do you have attended any counseling about cervical cancer							$\chi^2=2.932$ d.f=2 p=0.231 N.S
Yes	4	6.7	3	5.0	2	3.3	
No	11	18.3	32	53.3	8	13.3	

*p<0.05, S – Significant, N.S – Not Significant, p>0.05

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