Effect Of Sensitization Programme Regarding Hpv Screening With Self Sampling Method (SSM) Vs Assisted Sampling Method (ASM) On The Level Of Awareness, Among The Women At The Selected Villages Of Puducherry – Pilot Study Report

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Abstract

The cervical cancer screening is very low (22% to 36%) in India among women. Hpv testing has been shown to be more sensitive than a pap smear exam. Several shreds of evidence proved that self-collection of samples for cervical cancer screening can increase participation and follow-up as well. Women may feel more feasible to collect their own samples, rather than going to visit a health worker for cervical cancer screening.

Objectives
● To assess the existing level of awareness on hpv screening among group I (Self Sampling Method) & group II (Assisted Sampling Method) women at the selected Villages of Puducherry.

Methodology
● Quantitative research approach and Quasi experimental design was adopted in this study. Simple random sampling Technique was adopted to select the sample for the study. Total 20 Samples - 10 for experimental group and 10 for control group were selected .

Result and Findings: Regarding demographic variable the study findings are**:** majority 40% and 70% of women were in the age group of 25-35yrs and 36-45yrs in the group I and II respectively.

With regard to level of awareness the mean pre and posttest level of Awareness in the group I shows that during pretest the mean was 6.1 with SD 4.23 whereas during post test mean is 17.8 with SD 2.14. The mean difference was 10.3 with t value 6.65 shows highly significant.

Similarly in the group II the mean level of Awareness was 2.1 with SD 2.66 and the mean of post test is 6.1 with 3.17. The mean difference was 4 with t value 13.41 which is not significant.

Conclusion: This highlights awareness increased in the group I after the sensitization programme more than Group II.

Introduction

Prevalence of cervical cancer is most common in rural population in India. Demographic factors also play a very important role. Adequate screening measures and health awareness activities are helping in cancer identification and adequate prevention of cervical cancer. (1)

The Catalan Institute of Oncology/ The International Agency For Research On Cancer, factsheet (2020-2021) estimated that 123907 women are diagnosed with cervical cancer and 77348 die from the disease. Cervical cancer ranks as the 2nd most frequent cancer among women in India and the 2nd most frequent cancer among women between 15 and 44 years of age. About 5.0% of women in the general population are estimated to bear cervical HPV-16/18 infection at a given time. About 83.2% of invasive cervical cancers are attributed to HPVs 16 or 18. yet prevention is achievable with systematic and advance hpv screening. (2-5)

The cervical cancer screening is very low (22% to 36%) in India among women,(6). A community-based pilot study on screening of cancer conducted under the Tamil Nadu health system project suggests a large proportion of women did not return for follow-up and screening services represent the existence of other individuals-, community- and health system level barriers such as lack of familial support, cancer-related belief, and inadequate referral systems, unpleasant experience with speculum examination. (7-10)

Hpv testing has been shown to be more sensitive than a pap smear exam. [11,12]. Several shreds of evidence proved that self-collection of samples for cervical cancer screening can increase participation and follow-up as well. Women may feel more feasible to collect their own samples, rather than going to visit a health worker for cervical cancer screening. (13)

In this present scenario an effective screening against the high-risk strains of HPV shows great promise. cervical screening can provide the greatest protection against cervical cancer, by reducing the risk of developing cancers caused by HPV at sites other than the cervix. (14,15)

In this regards, ignorance, and less acceptability of screening is a big challenge in the prevention of the disease.

Hence, the researcher planned to conduct this study in order to explore awareness, experience with their acceptance towards screening.

Objectives
- To assess the existing level of awareness on hpv screening among group I (Self Sampling Method) & group II (Assisted Sampling Method) women at the selected Villages of Puducherry.
- To evaluate the effectiveness of sensitization program on level of awareness among group I and group II women at the selected Villages of Puducherry.

Hypotheses
- Ho1- There is no significant difference between pre test & post test level of awareness among group I & group II women at selected villages of Puducherry.
- Ho4- There is no significant association between post test level of awareness with selected demographic & obstetrical variables among group I & group II women at selected villages of Puducherry.

Methodology

Quantitative research approach and Quasi experimental design was adopted in this study. Simple random sampling Technique was adopted to select the sample for the study. Total 20 Samples - 10 for experimental group and 10 for control group were selected .

Criteria for the Selection of the Sample

Inclusion Criteria: -
- Married women aged 25 to 65 years living in selected village of Pondicherry.
- Willing to participate in the study
- No previous hysterectomy
- Available during the data collection

Exclusion Criteria:
- unmarried
- Pregnancy
- Having hysterectomy
- Active bleeding per vagina

DEVELOPMENT AND DESCRIPTION OF THE TOOL
- The tool was developed after extensive review of literature, internet search and expert's advice which helped the researcher to select most suitable tool using in this study was semi structured questionnaires with the interview schedule for quantitative approach.
- Tool consists of two sections
- Section –A-Demographic and Obstetrics Variable
- Section-B- A semi-structured interview schedule to assess the level of Awareness regarding Hpv Screening methods.

Description of the Tool:
- Section A:
- A semi structured interview schedule has been prepared to collect -
- demographic variable such as age, education, religion ,occupation, type of family. monthly income & screening pattern.
- Obstetrical variable as number of children, menstrual history, family planning method , history of STD & sexual activity history etc.

Section-B- it consist of Semi-Structured Interview schedule to assess the level of awareness regarding Hpv infection & screening method. total 20 question were framed with total score 20. all question had four multiple choice response except question number 6,7 they have 9 multiple choice with one correct response , For each correct response carries one score and incorrect response carries 0 score.

The interpretation score are subjected as follows -

Level of awareness regarding hpv infection & screening method	SCORE	PERCENTAGE
Inadequate awareness	00 – 7	00 - 33%
Moderately adequate awareness	08– 14	34 - 66%
Adequate awareness	15 –20	67 - 100%

Intervention

Self sampling group	Assisted sampling group
Video on hpv screening including procedure for SSM	Video regarding hpv screening
Leaflets regarding procedure for SSM	Leaflets regarding hpv screening

DESCRIPTION OF THE INTERVENTION:
VIDEO consist of following content (SSM Group)
- What is hpv infection?
- What is human Papilloma virus (HPV)
- Risk Factor For Hpv Infection
- Signs and Symptoms of Hpv Infection
- Incubation period of cervical cancer
- Prevention measures
- Who should get screened
- Storage of sample, Result & interpretation
- Procedure for self sampling method

VIDEO consist of following content (ASM Group)
- What is hpv infection?
- What is human Papilloma virus (HPV)
- Risk Factor For Hpv Infection
- Signs and Symptoms of Hpv Infection
- Incubation period of cervical cancer
- Prevention measures
- Who should get screened
- Storage of sample, Result & interpretation

Data collection Procedure

The formal verbal permission was obtained from the panchayat of thrikkanur village to do the data collection. Informed written consent was obtained from the subjects prior to the data collection. The subjects had the freedom to withdraw from the study at any time.The women who met the inclusion criteria and who are willing to participate in the data collection were included in this study. Total 10 women in Group I & 10 women in group II were included.The researcher introduced herself to the subjects. The purpose of the study was clearly explained to the Subjects and Privacy and confidentiality were maintained.The Data was collected in three phase.

Phase I –

For Group I (Self Sampling Method)

Socio-demographic data & Pre-test for level of awareness regarding hpv screening with SSM & ASM has conducted among the study participant.The sensitization programme has been conducted for the group I with the help of video and further leaflets given to them including procedure related to SSM.After sensitization programme cotton swab and collection tube had given to the study participant to take vaginal sample & instructed to return to researcher.Sample transported to lab by end of the day.Result of test communicated with PHC & study participant individually. Post test on level of awareness for group I, done one week after the sensitization programme.

For Group II (Assisted Sampling Method)

Socio-demographic data & Pre-test for level of awareness regarding hpv screening with SSM & ASM has conducted among the study participant.The sensitization programme has been conducted for the group II with the help of video and further leaflets given to them including information related to hpv screening . Participant were requested to visit thirukkanur PHC for the assisted sampling within one week after sensitization programme. Post test on level of awareness for group II, done one week after the sensitization programme.

Result and Findings: Regarding demographic variable the study findings are**:** majority 40% and 70% of women were in the age group of 25-35yrs and 36-45yrs in the group I and II respectively. 40% women in both group were having Graduation and more level of education. All the women are married and Hindus in both group. 60% women were house wives in both the groups. Around 80 % women had income below Rs. 15000. About 60% in the Gr I and 90% in the gr II women were in Joint Family. [Tab-1]

Table 1: Frequency and percentage Distribution of Demographic variables of woman under study

ariables		Group I (n-10)		Group II (n-10)	
		Frequency	Percentage	Frequency	Percentage
Age of the Women	25-35 year	4	40.0	2	20.0
	36 – 45 years	3	30.0	7	70.0
	46 – 55 years	2	20.0	1	10.0
	56 -65 year	1	10.0	0	0.0
Marital Status	Married	10	100.0	10	100.0
Duration of marriage	0-5 Years	4	40.0	0	0.0
	6-10 Years	2	20	5	50
	>10 Years	4	40	5	50
Variables		**Group I (n-10)**		**Group II (n-10)**	
		Frequency	Percentage	Frequency	Percentage
Religion	Hindu	10	100.0	8	80.0
	Muslims	0	0	1	10.0
	Christian	0	0	1	10.0
Educational Status	Illiterate	3	30.0	2	20
	Primary & middle school level	2	20.0	4	40
	Secondary school level	1	10.0	0	0
	Graduation	4	40.0	4	40
Variables		**Group I (n-10)**		**Group II (n-10)**	
		Frequency	Percentage	Frequency	Percentage
Occupation	House wife	6	60.0	6	60
	Self-employee	1	10.0	1	10
	Government employee	2	20.0	3	30

	Private employee	1	10.0	0	0
Monthly Income in Rs.	Less than 12019	8	80.0	8	80.0
	More than 32050	2	20.0	2	20.0
Type of Family	Nuclear family	4	40.0	1	10.0
	Joint family	6	60.0	9	90.0
Variables		**Group I (n-10)**		**Group II (n-10)**	
		Frequency	**Percentage**	**Frequency**	**Percentage**
Any family history of cervical cancer	Yes	0	0.0	0	0.0
	No	10	100.0	10	100.0
Do you suffer with any disease condition for which you are taking medicine	No	10	100.0	8	80
	Yes	0	0.0	2	20
Screening Pattern for hpv	Never screened	10	100.0	9	90
	Under screened	0	0.0	1	10
Variables		**Group I (n-10)**		**Group II (n-10)**	
		Frequency	Percentage	Frequency	Percentage
Number of Children	0.00	0.0	1.0	1.0	10.0
	1.00	2.0	20.0	0.0	0.0
	2.00	5.0	50.0	6.0	60.0
	3.00	0.0	0.0	3.0	30.0
	4.00	2.0	20.0	0.0	0.0
	5.00	1.0	10.0	0.0	0.0
Frequency of sexual activity past three month	Active	4	40.0	4	40.0
	Occasional	6	60.0	6	60.0
Variables		**Group I (n-10)**		**Group II (n-10)**	
		Frequency	**Percentage**	**Frequency**	**Percentage**
Are you using any contraception	Yes	4	40.0	2	20.0
	No	6	60.0	8	80.0
If yes, what is the method used	Condom	1	10.0	1	10
	Injectable	2	20.0	0	0
	IUCD	1	10.0	0	0
	Sterilization	0	0.0	1	10
Variables		**Group I (n-10)**		**Group II (n-10)**	
		Frequency	**Percentage**	**Frequency**	**Percentage**
Do you have painful or irregular menstrual history	Yes	1	10.0	1	10.0
	No	9	90.0	9	90.0
Do you feel pain or bleeding during or after sexual activity	Yes	0	0.0	0	0.0
	No	10	100.0	10	100.0
Do you have any history of genital infection or abnormal discharge	Yes	1	10.0	0	0
	No	9	90.0	10	100
If yes, details of disease condition and medicine	fungal infection	1	10.0	0	0

With regard to level of awareness the mean pre and posttest level of Awareness in the group I shows that during pretest the mean was 6.1 with SD 4.23 whereas during post test mean is 17.8 with SD 2.14. The mean difference was 10.3 with t value 6.65 shows highly significant.

Similarly in the group II the mean level of Awareness was 2.1 with SD 2.66 and the mean of post test is 6.1 with 3.17. The mean difference was 4 with t value 13.41 which is not significant.

This highlights awareness increased in the group I after the sensitization programme more than Group II. [Tab-2]

Table-2 Comparison of pre and post test mean awareness regarding hpv infection & screening among group I & group II women

n =10

Group	Level of Awareness	n	Mean	SD	Mean Diff.	Paired t test	P Value
Group I	Pre Test	10	6.1	4.23	10.3	6.65	P=<0.01 SIGNIFI CANT
	Post Test	10	17.8	2.14			
Group II	Pre Test	10	2.1	2.66	4.0	13.41	P=2.96
	Post Test	10	6.1	3.17			

Comparison of Posttest level of Awareness between group I and II shows that the mean of group I was 17.8 with SD 2.14 and group II mean was 6.1 with SD 3.17. The t value was 9.67 with p<0.05, shows significant difference.

Hence it is concluded that sensitization programme was effective for both group but significantly effective in group I to increase the awareness among women regarding screening methods. [Tab-3]

Table 3: Comparison of post test level of awareness in group I & group II among women

n =10

Post Test	Group	n	Mean	SD	t Value (unpaired)	P Value
Post test level of awareness	I	10	17.8	2.14	9.67	<0.05
	II	10	6.1	3.17		

Conclusion

From these above finding it is concluded that sensitization programme is effective to create awareness about screening methods.

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