

A Study to Assess the Effectiveness of OIS (Organised Instructions Session) On Knowledge Regarding the Importance of HPV Vaccination Among Females in Selected Communities of Kanpur

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Abstract

Introduction: The Human Papillomavirus (HPV) is one of the most prevalent sexually transmitted infections worldwide, with significant implications for public health. There are over 150 distinct types of HPV, but it is types 16 and 18 that are particularly notorious, as they account for approximately 70% of all cervical cancer cases globally. A

Materials and Methods: Pre-experimental one-group pre-test post-test design was utilized to evaluate the effectiveness of the educational intervention. The present study was conducted to Assess the Effectiveness of OIS (Organised Instruction Session) on Knowledge Regarding The Importance Of HPV Vaccination Among Females in Selected communities of Kanpur, UP. The data collected and analysed was based on descriptive and inferential statistics. 60 samples were collected by using Non-probability purposive sampling technique. The validity and reliability of tools was established. The data was collected by using self-structured knowledge questionnaire.

Results: According to the study's findings, 38 females (63.33%) had low knowledge on the pre-test, 22 females (37.67%) had average knowledge, and 0 females had good knowledge. On the post-test, 14 (23.33%) females had good knowledge, 31 (51.67%) had moderate knowledge, and 15 (25%) had low knowledge. The pre-test mean score (8.85) was lower than the post-test mean score (15.21). The research hypothesis H_1 was accepted and the null hypothesis H_{01} was rejected since the obtained "t" value of 5.63 was higher than the table value at $df = 59$, with $p < 0.05$ level of significance.

The test found a significant correlation with occupation and married status at the < 0.005 level of significance, but no significant correlation with certain sociodemographic variables as age, education level, and monthly income. As a result, H_2 was rejected and H_2 was approved as the research hypothesis.

Conclusion: The study came to the conclusion that participants' knowledge had improved as a result of the training or educational intervention. The program improved participants' comprehension of the material, as seen by the considerable rise in post-test knowledge scores over pre-test scores. Additionally, knowledge levels were found to be significantly influenced by marital status and occupation, but not by other demographic characteristics.

Keywords: OIS; HPV; Vaccination

Introduction

India is responsible for a significant percentage of cervical cancer cases worldwide and accounts for nearly 25% of all cervical cancer cases worldwide. India reports approximately 96,922 new cases and 60,078 cervical cancer fatalities annually. Such a statistic clearly defines how much it is crucial to generate awareness and accelerate prevention and treatment initiatives and its vaccine is very poor, and this is particularly so among Rural and semi-Rural women. Ignorance is compounded by deep-seated sociocultural taboos, inadequate access to basic health services, and general misinformation about vaccines. All these pose significant barriers to effective immunization and expose vulnerable population groups to danger. Organized Instruction Sessions (OIS) are highly effective to increase health literacy among marginalized people. If these sessions are tailored with content meaningful to the immediate population and delivered in a culturally sensitive manner, they are able to produce a substantial improvement in people's level of knowledge, attitude, and preventive practices for HPV vaccination. Selective inclusion of content specific to individual communities and culturally sensitive teaching methods produce an active teaching environment to teach and empower people to make smarter health decisions. In rural areas such as Kanpur, particularly within slums and adjacent communities, women encounter a myriad of challenges that significantly impact their health and well-being. These challenges include limited access to essential healthcare services, subpar educational opportunities, and deeply entrenched cultural beliefs surrounding reproductive health. As a result, many women remain unaware of crucial health information, including the benefits of the HPV vaccine, which is a proven safeguard against cervical cancer.

In recent years, there has been an increasing emphasis on women's health issues across India. However, the utilization and awareness of the HPV vaccine remain alarmingly low, particularly in tier-2 and tier-3 cities such as Kanpur. Numerous studies have highlighted that a substantial proportion of Indian women are not adequately informed about human papillomavirus (HPV), its strong association with cervical cancer, or the availability of preventive vaccines that could protect them. This lack of awareness poses a significant barrier to effective healthcare and underscores the urgent need for targeted educational initiatives in these

regions. Address the critical information gap surrounding cervical cancer and the human papillomavirus (HPV), ensuring that accurate and accessible knowledge is disseminated to the public. Demystify common myths and misconceptions related to the safety and effectiveness of the HPV vaccine, providing clear evidence to promote informed decision-making. Encourage women to take an active role in their reproductive health by fostering awareness and engagement, empowering them to make knowledgeable choices about their well-being. Promote acceptance and advocacy for vaccination against HPV among families and communities these findings can be applied to public health practice by demonstrating the impact of systematic community education on acceptance of vaccines and cancer prevention.

Objectives of The Study

1. To assess the pre-test level of knowledge regarding organized instruction session (OIS) on HPV vaccination.
2. To evaluate the effectiveness of the Organized Instruction Session (OIS) on HPV vaccination.
3. To associate the pre-test knowledge scores with selected demographic variables.

Hypothesis

“A hypothesis is a tentative prediction or explanation of the relationship between the variable.”

- **H₀₁**- There is no significant difference between pre-test and post-test knowledge score regarding the importance of HPV vaccination among females in selected communities.
- **H₀₂**- There is no significant association between pre-test level of knowledge score regarding the importance of HPV vaccination among females in selected communities with their selected demographic variables.
- **H₁** – There is a significant difference between the pre-test and post-test knowledge scores regarding the importance of HPV vaccination among females in selected communities.
- **H₂** - There is a significant association between the pre-test knowledge scores of score regarding the importance of HPV vaccination among females in selected communities with their selected demographic variables.

Materials and Methods

Research Approach- The research approach used for the present study was Quantitative evaluative research approach.

Research Design- The research design used in this study was **Pre-experimental, one group pre-test post-test research design.**

Variables-Independent Variable: In this study the independent variables were Organised instructional session on cervical cancer and HVP vaccination.

Dependent Variable: In this study the dependent variables was knowledge of the females regarding the importance of HVP vaccination.

Extraneous Variable: In this study, extraneous variables were age (in year), education level, marital status, occupation, residence, monthly income, and prior exposure to health education programs.

Population- The population of present study consist of women aged 25 to 45 years.

Target Population- The target population of present study consist of all women aged 25 to 45 years living in selected community areas in Kanpur.

Accessible Population- All women aged 25 to 45 residing in the neighborhoods of Kukradev, Kanpur.

Sample- The sample comprised a group of women aged 25 to 45 years, each of whom met the established inclusion criteria and voluntarily provided their informed consent to participate in the study.

Sample Size- A total of 60 women aged 25 to 45 participated in the study, forming a diverse sample that reflects various backgrounds.

Sampling Technique- In this study non-probability purposive sampling technique was used to select the sample.

Inclusion Criteria-

- Females aged 25–45 years
- Permanent residents of the selected community kukradev in Kanpur
- Willing to participate and provide informed consent
- Able to understand Hindi or the local dialect

Exclusion Criteria-

- Previously vaccinated against HPV
- Not available during the OIS session

- Having cognitive or communication impairments affecting participation

Methods of Data Collection:

Structured Knowledge Questionnaire, the tool was meticulously designed to evaluate participant's understanding of HPV infection and vaccination.

Development and Description of Tools Used in The Study

The tool to assess the knowledge regarding the importance of HPV vaccination among females developed through self-structured questionnaires.

The tool consists of two sections: -

Section-A: Socio-demographic variables.

Section-B: self-structured questionnaire related to the importance of HPV vaccination among females.

Results and Findings:

Section-I: Frequency and percentage wise distribution of demographic variables.

- The distribution of respondents according to age showed that out of 60 health care workers, 18 (30%) belonged to the age group of 21–25 years, while 15 (25%) were between 26–30 years. An equal number, 15 (25%), were above 35 years, and 12 (20%) fell within 31–35 years. This indicates that the study included a balanced mix of younger as well as older participants.
- With respect to gender, the majority of respondents were female. Out of 60 health care workers, 43 (71.3%) were female and 17 (28.7%) were male. This reflects the predominance of women in the community health workforce.
- Considering work experience, 21 (35%) of the respondents had 3–5 years of experience, while 20 (33.3%) had more than 5 years. Eleven respondents (18.3%) had 1–3 years of experience, and 8 (13.3%) had less than 1 year. Thus, most respondents had moderate to long-term work exposure in health care settings.
- In terms of educational qualification, nearly half of the respondents, 28 (46.7%), were B.Sc. Nursing graduates. A total of 12 (20%) were GNMs, 8 (13.3%) were ANMs, and 36 (60%) were Asha/Sanganis. This indicates representation from both professional nurses and grassroots-level health workers.

- Regarding previous sources of knowledge about lymphatic filariasis, 22 (36.7%) reported television, 19 (31.7%) mentioned the internet, 11 (18.3%) cited newspapers, and 8 (13.3%) referred to books or magazines. This shows that mass media, particularly television and the internet, were the main sources of information.
- With respect to previous workplace exposure, 27 (45%) of respondents had worked in two places, 21 (35%) had experience in three places, 9 (15%) had worked in one place only, and 3 (5%) reported experience in more than three places. This suggests that the majority had gained exposure through multiple health settings.
- When analyzed according to daily patient load, 24 (40%) of respondents dealt with 21–30 patients per day, while 19 (31.7%) reported handling more than 30 patients daily. Twelve (20%) handled 11–20 patients, and only 5 (8.3%) reported seeing 1–10 patients daily. This highlights that most health workers in the study were engaged with a considerable number of patients on a daily basis.
- Finally, distribution according to religion revealed that 32 (53.3%) of respondents were Hindus, 18 (30%) were Christians, 4 (6.7%) were Muslims, and 6 (10%) belonged to other religions. This demonstrates the presence of diverse religious backgrounds among the participants, though the majority were Hindu.

Section-II: Table 01: Distribution of women according to the pre-test and post-test level of knowledge on importance of HPV vaccination among females.

N=60

S.No.	Level of knowledge	Pre-test		Post-test	
		F	%	F	%
1	Poor	38	63.33%	15	25%
2	Average	22	36.67%	31	51.67%
3	Good	0	0	14	23.33%

Section-III: Table 02: Comparison of pre-test and post-test level of knowledge regarding importance of HPV vaccination among females.

N=60

Test type	Mean score	Standard deviation	t-value	df	p-value	Result
Pre-test	8.85	5.10	5.63	59	0.05	Significant (S*)
Post-test	15.21	7.19				

Section-IV: Table 03: Association between Pre-test knowledge and selected demographic variables.

N=60

Demographic variables	Chi-square χ^2	p-value	Significance
Age	10.30	0.245	NS
Education level	4.00	0.677	NS
Occupation of mother	11.05	0.026	S*
Monthly income	6.12	0.410	NS
Marital status	10.08	0.039	S*

The association between pre-test knowledge score with selected demographical variables like age in years, education level, and occupation of mother, family income and marital status. Here, calculated value of chi-square was more than table at 0.05 level of significance, so there was significant association exist between the Socio demographic variables with their pre-test knowledge score. Hence, the formulated research **hypothesis H₂** was accepted.

Conclusion:

The study concludes that the Organized Instructional Session was highly effective in significantly improving knowledge regarding HPV and vaccination among rural women in Kanpur. The mean knowledge scores increased markedly after the intervention, and the differences were statistically significant. Importantly, the OIS proved beneficial across all educational, occupational, and marital subgroups, demonstrating its power to neutralize demographic disparities. Thus, community-based educational strategies such as OIS hold strong potential for improving HPV awareness, encouraging vaccine acceptance, and ultimately reducing the burden of cervical cancer in underserved populations. The analysis revealed that the baseline knowledge about HPV and its vaccine was generally inadequate, with 38.33% of participants falling in the “poor” knowledge category and none demonstrating “good” knowledge levels. Following the intervention, there was a statistically significant improvement in knowledge across all demographic subgroups, with the mean knowledge score rising from 8.95 to 11.98, and 25% of participants attaining “good” knowledge levels. The improvement was consistent across education levels, occupational statuses, marital status, and prior exposure to health education, as confirmed by paired t-tests ($p < 0.01$ across all groups).

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