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A Descriptive Study to Assess Knowledge and Attitude Regarding the HPV Vaccine Among Mothers of Girls Aged 9–19 Years Residing in a Selected Community Area.

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Abstract:

Introduction: Cervical cancer is primarily caused by the Human Papillomavirus (HPV), which can be significantly prevented by administering vaccinations at the appropriate time. Nevertheless, the lack of awareness among mothers continues to be a significant impediment to the acceptance of the HPV vaccine among adolescent females. **Objective:** To evaluate the knowledge and attitude of mothers of girls aged 9–19 years who reside in a designated community area toward the Human Papillomavirus (HPV) vaccine. **Methods:** A descriptive research design was implemented in conjunction with a quantitative research approach. The survey was conducted among 60 mothers from Maduravoyal, Chennai, who were selected thru non-probability purposive sampling. A structured questionnaire that included demographic variables, a 13-item HPV Knowledge Questionnaire (HPV-KQ), and a 10-item five-point Likert attitude scale was employed to collect data. Data analysis were conducted using descriptive and inferential statistics. **Results:** The results indicated that 1 (1.67%) had adequate knowledge, 2 (3.33%) had moderate knowledge, and 57 (95%) mothers had inadequate knowledge regarding the HPV vaccine. The majority of mothers, 53 (88.33%), exhibited a neutral attitude, while 4 (6.67%) had a favorable attitude and 3 (5%) had an unfavorable attitude. Educational status and previous awareness were significantly associated with knowledge, while attitude was significantly associated with educational status and occupation. **Conclusion:** The study found that the majority of mothers possessed a predominantly neutral attitude toward HPV vaccination and possessed insufficient knowledge. This underscores the necessity of a comprehensive health education and community awareness program to enhance vaccine acceptance and prevent cervical cancer.

Keywords: Human Papilloma virus, HPV vaccine, Knowledge, Attitude, Mothers, Cervical cancer

INTRODUCTION

The human papillomavirus (HPV) is the predominant sexually transmitted infection globally and is the primary etiological factor for cervical cancer, responsible for about 99% of instances. Cervical cancer continues to be a significant public health issue, especially in low- and middle -income nations, where insufficient knowledge, inadequate screening, and restricted access to preventative interventions lead to elevated morbidity and death rates.

HPV vaccinations have shown remarkable safety and efficacy in preventing HPV, especially within the Indian setting. Evaluating these elements is crucial for recognizing current knowledge deficiencies and devising impactful community-oriented awareness initiatives. The current research was conducted to evaluate the awareness and perceptions of the HPV vaccine among moms of daughters aged 9–19 years living in a designated neighborhood.

The results are anticipated to provide foundational data for healthcare practitioners and nursing staff to formulate evidence-informed health education initiatives, enhance vaccine uptake, and aid in cervical cancer prevention by boosting HPV vaccination rates.

AIM

To find out the knowledge and attitude of mothers of girls in the age group 9-19 years of age in a selected community area.

METHODOLOGY

The quantitative research method and descriptive research design was used to evaluate the knowledge and attitude about Human papilloma virus (HPV) vaccine of mothers of girls aged 9-19 years. The study was carried out in Maduravoyal, Chennai, Tamil Nadu. To extract 60 mothers as the sample, the purposive sampling method was used, which is a non-probability sampling method. A structured questionnaire was used to collect data, which included demographic variables, HPV Knowledge Questionnaire (HPV-KQ) with 13 items and a 10 item, five point Likert attitude scale. The concerned authorities were contacted before and permission was obtained, and the fact that participants' identities and information would not be disclosed was respected.

Descriptive and inferential analysis of data was done. Data were presented in mean, standard deviation, frequency and percentage to summarize the findings while the level of association between selected demographic variables with the level of knowledge and attitude was determined by applying Chi square test of association.

RESULT

The table 1 shows that most of the mothers of girls aged 9 – 19 years, 27(45%) were aged above 35 years, 59(98.3%) were married, 44(73.3%) were Hindus, 34(56.7%) belonged to nuclear family, 27(45%) of mothers had higher secondary education, 39(65%) of mothers were housewives, 23(38.4%) had monthly family income of ₹20,001 – ₹30,000, 30(50%)

had one child, 47(78.4%) had one adolescent girl (09 – 19 years), 26(43.3%) of adolescent girls were aged between 10 – 13 years, 36(93.3%) were school – going adolescent girls, 57(95%) were residing in urban area, 30(50%) revied health information through health workers (ANM/ASHA), 51 (85%) had no previous awareness of HPV vaccine and 50 (83.3%) were fully vaccinated.

According to the results of Table 2, most of the mothers (57, 95%) had inadequate knowledge about HPV vaccine, 2 mothers (3.33%) had moderate knowledge and 1 mothers (1.67%) had adequate knowledge. Based on the results of this study, it can be concluded that the knowledge of mothers who were the subjects of the study on HPV infection and HPV vaccination was still limited.

Table 3 shows that majority of the mothers were neutral (88.33%, 53), 4 (6.67%) of them had a favourable attitude while 3 (5%) had an unfavourable attitude about the HPV vaccine. This finding implies that, while majority of mothers were not against HPV vaccination, they were not confident and well-informed enough to build a positive attitude towards the vaccine.

The level of knowledge was significantly associated with educational status of the mothers (χ^2 =35.649, p = 0.0001) and previous awareness about HPV vaccine (χ^2 =7.919, p = 0.019). Similarly, age of the mothers (χ^2 = 15.654, p = 0.016), educational status (χ^2 = 42.367, p = 0.0001), and previous awareness regarding the HPV vaccine (χ^2 = 7.157, p = 0.028) were significantly associated with the level of attitude. There was no significant correlation between the other demographic data and the knowledge and attitude towards HPV vaccine.

DISCUSSION

In the current study, most mothers (57(95%)), had inadequate knowledge about the Human Papilloma virus (HPV) vaccine, two (3.33%) had moderate knowledge and one (1.67%) had adequate knowledge. Similarly, the mothers had a neutral attitude towards HPV vaccination (88.33%) while 4 (6.67%) mothers had a favorable and 3 (5%) mothers had an unfavorable attitude. The results demonstrate low level of awareness on HPV vaccination and mostly neutral attitude among mothers of 9 to 19 years old girls, which highlight the need for community-level health education and awareness program.

The study also came up with statistically significant association between the level of knowledge and educational status and previous awareness about HPV vaccine. In the same way, age, educational status and prior knowledge were also significantly related to attitude level. These results indicate that targeted actions to raise awareness, such as educational campaigns and community-based initiatives, could potentially improve knowledge, foster positive attitudes, and encourage greater acceptance of HPV vaccination to prevent cervical cancer.

CONCLUSION

The study revealed that most mothers had poor knowledge and neutral attitude towards the HPV vaccine. Educational status and the prior knowledge about HPV vaccine were significantly associated with the level of knowledge; and educational status and occupation were significantly associated with attitude towards HPV vaccine. These results highlight the necessity of implementing community-based HE programs aimed at enhancing mothers' knowledge and fostering positive attitudes and awareness towards HPV vaccination, which can help inform their decision-making and prevent cervical cancer.

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Table 1: Demographic variables variables of the mothers of girls aged 9 – 19 years. (N= 60)

Demographic Variables	F	%
Age of the mother (in years)		
20 – 25	5	8.3
26 – 30	16	26.7
31 – 35	12	20.0
Above 35	27	45.0
Marital status		
Married	59	98.3
Widowed	1	1.7
Separated	-	-
Religion		
Hindu	44	73.3
Muslim	6	10.0
Christian	9	15.0
Others	1	1.7
Type of family		
Nuclear	34	56.7
Joint	24	40.0
Extended	2	3.3
Educational status of the mother		
No formal education	3	5.0
Primary education	13	21.7
Secondary education	15	25.0
Higher secondary	27	45.0
Graduate and above	2	3.3
Occupation of the mother		
Housewife	39	65.0
Employed	15	25.0
Self-employed	4	6.7
Daily wage worker	2	3.3
Monthly family income		
Less than ₹10,000	5	8.3
₹10,001–₹20,000	14	23.3
₹20,001–₹30,000	23	38.4
Above ₹30,000	18	30.0
Number of children		
One	30	50.0
Two	25	41.7
Three or more	5	8.3

Number of adolescent girls (9 – 19 years)		
One	47	78.4
Two	11	18.3
More than two	2	3.3
Age of the adolescent girl		
09 – 13 years	26	43.3
14 – 16 years	25	41.7
17 – 19 years	9	15.0
Schooling status of the adolescent girls		
School-going	36	93.3
Not attending school	4	6.7
Area of residence		
Urban	57	95.0
Rural	3	5.0
Semi-urban	-	-
Source of health information		
Health workers (ANM/ASHA)	30	50.0
Doctor / Nurse	13	21.7
TV / Radio	14	23.3
Interne t/ Social media	3	5.0
Friends / Relatives	-	-
Previous awareness of HPV vaccine		
Yes	9	15.0
No	51	85.0
History of vaccination of the child		
Fully vaccinated	50	83.3
Partially vaccinated	9	15.0
Not vaccinated	1	1.7

Table 2: Frequency and percentage distribution of level of knowledge regarding HPV vaccine among mothers of girls aged 9 – 19 years. (N = 60)

Level of Knowledge	**F**	**%**
Inadequate knowledge (0 – 4)	57	95.0
Moderate knowledge (5 – 9)	2	3.33
Adequate knowledge (10 – 13)	1	1.67

Table 3: Frequency and percentage distribution of level of attitude regarding HPV vaccine among mothers of girls aged 9 – 19 years. (N = 60)

Level of Attitude	F	%
Unfavourable attitude (10 – 23)	3	5.0
Neutral attitude (24 – 37)	53	88.33
Favourable attitude (38 – 50)	4	6.67

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