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Knowledge and Attitude Regarding Menstrual Hygiene and Human Papilloma Virus Vaccine among Adolescent Girls in Selected Higher Secondary School in Kannur District

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Abstract

Adolescence is the bridge between unique and adulthood. Menstruation is the unique phenomena occur in the adulthood. Lack of menstrual hygiene leads to reproductive tract infections. Cervical cancer is the leading cause of cancer related death among women in India. 99% cervical cancers are caused by human papilloma virus. Human papilloma virus vaccine can prevent most common type of infection. To be most effective, they should be used before an infection occurs and are therefore recommended between the age of 9 and 13. The study is undertaken to asses the knowledge and attitude regarding menstrual hygiene and Human papilloma virus vaccine among adolescent girls in selected higher secondary school in Kannur district. A descriptive survey design was used. The participants were 100 higher secondary students studying in Parassinikadavu Higher Secondary School was recruited. Data collected and analysed by descriptive and inferential statistics. The major findings of 100 participants include, the majority of them belongs to the age group of 15 – 16 (84%) yrs. Most of them are Hindus (87%), 73% were studying in plus one and are non- vegetarian. 83% of them attained menarche at the age of 13-15 years. 75% of them belongs to nuclear family among 100 adolescent girls, The Mean percentage of the knowledge on menstrual hygiene is 77.2% and mean percentage of attitude on menstrual hygiene 88.8%. The mean percentage of knowledge and attitude on Human Papilloma Virus Vaccine is 50% and 78% respectively. 81% have good knowledge, 15% have average and 4% have excellent knowledge regarding menstrual hygiene and 67%, 27% & 6% have average, poor and good knowledge regarding HPV Vaccine respectively. 77% have excellent and 23% have good attitude on menstrual hygiene where as 70% have good, 24% have excellent and 6% have average attitude regarding HPV Vaccine. The study shows that there is no significant association between Knowledge and attitude regarding menstrual hygiene & HPV Vaccine with selected demographic variable. There is a positive correlation exist among knowledge & attitude regarding menstrual hygiene and HPV vaccine.

Introduction

"ADOLESCENCE IS THE CONJUGATOR OF CHILDHOOD AND ADULTHOOD"

-LOUISE J KAPLAN

India has one of the fastest growing youth populations in the world, with an estimated 190 million adolescence. Girls below 19 years of age comprises one quarter of India. Adolescence is a transition period from childhood to adulthood. Adolescence is a stage of growth and development in which major cognitive psychological and physical changes take place. Although pubertal girls need to adjust to new role expectation associated with this period of maturation. Menstruation is a natural process. Menstrual periods is one such time when females are expected to adopt hygienic practices.[1]

Hygiene related practices of women during menstruation are of considerable importance especially for young girls who do not have experience especially during the onset. At menarche many studies have shown poor menstrual hygienic practices during adolescence. Improper use of menstrual hygienic materials may associate with the risk of developing cervical cancer, toxic shock, and pelvic inflammatory disease.Poor practices increase vulnerability to reproductive tract infection. Infection due to lack of menstrual hygiene are often reported. The prevalence of reproductive tract infection is quite higher among girls having unsafe menstrual practices. It is clear from earlier studies that majority of the girls have correct knowledge about menstruation, but were poor in menstrual practice.[2]

Human Pappiloma virus Infection is caused by human Pappilomavirus. Human Pappiloma virus Vaccines can prevent the most common types of infection. To be most effective, they should be used before an infection occurs and are therefore recommended between the age of 9 and 13. Human Pappiloma virus vaccination is for primary prevention of carcinoma cervix. A cost effective second generation HPV vaccine is needed for developing countries to address various issues specific to the region.[3]

Back Ground of the Study

WHO defines adolescence is the age between 10-19 years (2011), a bridge between childhood and adulthood. The unique phenomena the menstruation beings at this age period. During these period adolescent girls shows various psychological and physiological changes. To prevent reproductive tract infection and its consequences, hygienic practices are very necessary during menstruation. Lack of menstrual hygiene may lead to growth of Human Pappiloma virus. In India 99.7% cervical cancer are caused by Human Pappiloma virus. In the world India has third position for cancer death. Among these cervical cancer is the second most cause of death of female.[4] Improving menstrual hygiene is important from the point of view of personal comfort and increased mobility, also reduces the likelihood of infections resulting from poor hygiene practices during menstruation. Providing girls with knowledge and skills on maintaining menstrual hygiene improves school attendance among girls, who otherwise may not attend school during those days or even drop out of school altogether.[5]

Good menstrual hygiene practices such as use of sanitary pads and adequate washing of genital areas are essential during menstruation. Although the period of adolescence is a healthy part of life, many adolescents are often less informed, less experienced and less comfortable with accessing reproductive health information and services than adult.[5] Cervical cancer is one of the easily preventable cancer owing to long lag period, availability of screening method for its early detection and highly efficacious treatment. Human Pappiloma virus vaccine produces robust immune response. Two different vaccines that have been developed to prevent infection from Human Pappiloma virus 16 and 18.[3] World health organization (WHO) recommends Human Pappiloma virus Vaccines as a part of routine vaccination in all countries, along with other preventive measures. Vaccinating girls around the age of nine to twelve is typically recommended[3] following Gardasil.

Need and Significants of the Study

Menstruation & menstrual hygiene are clouded by taboos & socio-cultural restrictions. Lack of menstrual hygiene may lead to reproductive tract infection and its consequences. So good menstrual hygiene is essential for the health and dignity of girls and women. Menstrual hygiene include care of genital area, sanitary napkin, diet and exercise, sympathetic emotional and hygienic care given during menstruation. Promoting menstrual hygiene is achieved through provision of health education to girls and women, and it can be done through community and in schools.[2] A questionnaire based survey was conducted in total of 1580 under graduate students between the age group 16 to 26 years comprising 684 girls and 876 boys, to determine knowledge, awareness and attitude on Human Pappiloma virus, Human Pappiloma virus vaccine and cervical cancer. 82.45 % girls had knowledge about cervical cancer, 44% on Human Pappiloma virus vaccine and 45.6% have knowledge on Human Pappiloma virus. It is suggested that there is a need for educational intervention & awareness campaigns for Human Pappiloma virus and Human Pappiloma virus vaccine for control of cervical cancer in India.[7]

Cervical cancer is the leading cause of cancer related death among women in developing countries.99.9% cervical cancer is caused by Human Papilloma virus. According to report call for action expanding cancer care for women in India 2017, cancer in India estimated at 0.7 million. Estimated number of new cases of cervical cancer diagnosed in 2018 is 930 females. Recent studies show that in India cervical cancer death are increasing, with the age group of 15-44 years. The above statistics indicates the at most need of creating awareness and knowledge on menstrual hygiene and most essentiality of obtaining HPV vaccine among adolescence girls. Hence the investigators had decided to undertake a descriptive study among adolescence girls in view to create.[4]

Statement of the Problem

A study to assess the knowledge and attitude regarding menstrual hygiene & Human Pappiloma Virus vaccine among adolescent girls in a selected higher secondary schools in Kannur district.

Objectives

- Ø Assess the knowledge regarding menstrual hygiene and Human Pappiloma virus vaccine among adolescent girls.
- Ø Assess the attitude regarding menstrual hygiene and Human Pappiloma virus vaccine among adolescent girls.
- Ø Find the association of knowledge & attitude regarding menstrual hygiene with selected demographic variables.
- Ø Find the association of knowledge & attitude regarding Human Pappiloma virus vaccine with selected demographic variables.
- Ø Assess the correlation between knowledge and attitude regarding menstrual hygiene and Human Pappiloma virus vaccine.

Review of Literature

A descriptive cross sectional study conducted from June 2014- August 2014 to determine the menstrual hygiene among school going adolescent girls in rural area of West Bengal. 307 adolescent girls of 12-17 years were selected by probability random sampling and pretested questionnaire was given to them. Data were analyzed in SPSS. The study result reveals that majority of students in both schools (62.9%) were Hindu, general caste (54.1%) and belonged to nuclear family (69.7%). Bivariate analysis was done and significant factors predicting good menstrual hygiene were entered to multivariable logistic regression model. It reveals that good menstrual hygiene was more among those whose mothers were educated[1]

A cross sectional study was conducted in Ambala District Haryana. Sample were taken by multi stage random sampling during June to December 2015. A total 400 adolescents were taken from class 9th to 12th from 4 secondary schools and 2 from urban and 2 from rural schools. Data collected by interview method with the help of pretested predesigned semi structured questionnaire. 95% of adolescence attained menarche at the time of interview. Mean age of menarche in the study subjects was 12.21 ± 1.7 years. 51.2% girls had negative reactions to menarche. 97% adolescent girls did not practice any restrictions during menstruation.[3] A community based descriptive cross sectional study of menstrual hygiene and related personal hygiene practices among adolescent girls was conducted in rural field practicing area of Puducherry, from 15th march 2013 to 31st April 2014 by using semi structured questionnaire. 528 adolescent girls were included by complete enumeration. Their findings are majority (89.2%)of the adolescent girls was using sanitary pads, fresh and reusable clothes were used by 6.6% & 4.2% respectively. 65.3% girls changed their soaked absorbent 2-5 times in a day. Majority (60.8%) of the girls dispose their used absorbent by burying or burning.67.9% girls were washing genitalia during micturition. 54.4%used soap & water for hand cleaning purpose and 1.4% used ash and mud etc. They concluded that emphasise is needed to be given on awareness of menstrual hygiene practices among adolescent girls.[6]

A quasi experimental study conducted by W. Bayamma to assess the effectiveness of structured teaching programme on cervical cancer among the women at Venkadachalam. A sample of 60 women between the age group among 30-60 residing at venkadachalam were selected for the study. Pre test shows that 7(11.6%) sample had poor knowledge, 52(86.7%) sample had average knowledge. In post test 5(8.4%) sample had good knowledge and 55(91.6%) had excellent knowledge on cervical cancer.[18]

A questionnaire based survey was conducted regarding knowledge, awareness and attitude on HPV vaccine and cervical cancer among the 1580 college students between the age group 16-26 years (684 girls and 876 boys) in India. It is found that out of a total of 1580 girls 82.45% ($p<0.001$) had knowledge regarding cervical cancer, 44% had knowledge regarding human pappilloma virus vaccine and 46.58% had knowledge regarding human pappilloma virus.[20] A cross sectional study conducted in territory care hospital in south India regarding knowledge and awareness of cervical cancer, HPV, HPV vaccine among screening women in the year of 2000. It's found that a total of 152 screening women were included,103/152, (67%)were from rural area & 49/152(32;2%) were from urban area. The study result shows that overall 121/152(79.6%) were aware of the cervical cancer and 5% aware of HPV.[21]

Research Methods

A quantitative approach was adopted for the study to assess the knowledge and attitude regarding menstrual hygiene and HPV vaccine among adolescent girls. A descriptive survey research design was adopted for this study. The setting of the study chosen in Parassinikadavu higher secondary school at Kannur district. The population consists of adolescent girls within the age group of 15 to 19 years from the Parassinikadavu higher secondary school at Kannur district. The research participants are recruited based on the inclusion and exclusion criteria of the study by adopting simple random sampling. Accordingly 100 adolescent girls were recruited in the age group of 15-19 years studying in selected higher secondary schools in Kannur district.

Tool

Structured questionnaire was prepared to assess the knowledge and attitude scale to assess the attitude level of adolescent girls regarding menstrual hygiene and HPV vaccine.

1. Section A : Socio demographic data sheet.
2. Section B : Questionnaire to assess the knowledge regarding menstrual hygiene.
3. Section C : Questionnaire to assess the knowledge regarding HPV vaccine.
4. Section D : Attitude scale to assess the practice regarding menstrual hygiene
5. Section E : Attitude scale to assess the practice regarding HPV vaccine.

After obtaining permission from principal of Parassinikadavu higher secondary school Kannur, main study was conducted among 100 adolescent girls from 11th and 12th classes, those who are satisfying inclusion and exclusion criteria to assess the knowledge and attitude of adolescent girls regarding menstrual hygiene and Human papilloma vaccine after doing a pilot study. The investigators after establishing a rapport with the adolescent girls, explained the purpose of the study and assured confidentiality of the data collected after obtaining the informed consent. The collected data were tabulated and analysed using descriptive and inferential statistics.After the data collection, the investigators administered the self instructional module. Frequency, percentage and chi square were used by the investigators to analyse the study findings.

Major Findings

The finding has been organized and presented under following headings.

Part-1

Table1. *Distribution of Socioemographic Variables*

Sl.No	Variables	F	%
1	**Age**		
	15-16	84	84%
	17-18	16	16%
	Above 18	0	0%
2.	**Religion**		
	Hindu	87	87%
	Christian	12	12%
	Muslim	1	1%
	Others	0	0%
3.	**Monthly Income**		
	1000-3000	42	42%
	3001-5000	13	13%
	5001-7000	17	17%
	Above 70000	28	28%
4.	**Class of studying**		
	Plus one	73	73%
	Plus two	27	27%
5.	**Food habits**		
	Vegetarian	1	1%
	Non vegetarian	0	0%
	Both	99	99%

6.	**Age of menarche**		
	Before 10 years	1	1%
	10-12 years	16	16%
	13-15 years	83	83%
	Not yet	0	0%
7.	**Type of family**		
	Nuclear family	75	75%
	Joint family	25	25%
	Extended family	0	0%

The data from the Table-1 reveals that 84% adolescent girls belongs to the age group of 15-16 and 16% belongs to the age group of 17-18 years. Among 100 adolescent girls 87% belongs to Hindus, 12% belongs to Muslim and only 1 % belong to Christian. 42% have monthly income of 1000-3000, 28% have above 7000,17 % have the income of 5000-7000.73% were studying in plus one and remaining 27% were in plus two. 99% of them eat both vegetarian and non vegetarian foods and 1% is vegetarian. 83% of them attained menarche at the age of 13-15years, 16% of them attained menarche at the age of 10-12 years and only one attained menarche at the age of 10 years. 75% students are belongs to nuclear family and remaining 25% students are in joint family.

Part-2

Table2. *Description of Study Variables*

Sl.No	Variables	F	%
1.	**Knowledge on menstrual hygiene**	4	4%
	Excellent	81	81%
	Good	15	15%
	Average	0	0%
	Poor		
2.	**Knowledge on HPV vaccine**		
	Excellent	0	0%
	Good	6	6%
	Average	67	67%
	Poor	27	27%
3.	**Attitude on menstrual hygiene**		
	Excellent	77	77%
	Good	23	23%
	Average	0	0%
	Poor	0	0%
4.	**Attitude on HPV vaccine**		
	Excellent	24	24%
	Good	70	70%
	Average	6	6%
	Poor	0	0%

Table-2 depicts, among100 adolescent girls 81% have good knowledge,15% have average and 4 % have excellent knowledge regarding menstrual hygiene. shows that 6% adolescent girls have good knowledge, 67% have average knowledge and 27% have poor knowledge regarding HPV Vaccine. 77% adolescent girls have excellent attitude, 23% have good attitude on menstrual hygiene. 24% have excellent attitude, 70% have good attitude 6% attitude regarding HPV Vaccine.

Part-3. Association of Knowledge and Attitude Regarding Menstrual Hygiene with Socio Demographic Variables.

Table3.1. *Association between knowledge on menstrual hygiene with selected demographic variables.*

Sl.No	Socio demographic variables	Chi	Df
1.	Age	5.8	2
2.	Religion	16.92	9
3.	Monthly income	5.358	6
4.	Class of studying	0.0118	2
5.	Food habit	3.2004	4
6.	Age of menarche	9.01	4
7.	Type of family	3.83	2

The data depicted from the table 3.1 reveals that there is no statistically significant association between knowledge on menstrual hygiene with selected demographic variables.

Table3.2. *Association between attitude on menstrual hygiene with selected socio demographic variable*

Sl.No	Variables	Chi	DF
1	Age	0.042	1
2	Religion	0.3244	2
3	Monthly income	2.243	3
4	Class of study	2.286	1
5	Food habits	9.172	1
6	Age of menarche	0.340	2
7	Type of family	0.1677	1

It is evident from table 3.2 there is no statistically significant association between attitude on menstrual hygiene with selected demographic variables.

Part4. Association of Knowledge and Attitude Regarding HPV Vaccine With Socio Demographic Variable

Table4.1. *Association of knowledge regarding HPV vaccine with selected demographic variables*

Sl.No	Socio demographic variables	Chi	Df
1.	Age	3.141	2
2.	Religion	9.34	4
3.	Monthly income	24.99	6
4.	Class of studying	0.976	2
5.	Food habit	1.983	2
6.	Age of menarche	1.901	4
7.	Type of family	5.99	2

The table 4.1 shows that there is no statistically significant association between knowledge on HPV vaccine with selected demographic variables.

Table 4.2

Sl.No	Socio demographic variables	Chi	Df
1.	Age	5.064	2
2.	Religion	6.0702	4
3.	Monthly income	12.38	6
4.	Class of studying	5.84	2
5.	Food habit	2.435	2
6.	Age of menarche	3.1043	4
7.	Type of family	4.702	2

Table 4.2 shows that there is no statistically significant association between attitude on menstrual hygiene with selected demographic variables.

Part-5. Relationship Between Knowledge and Attitude Regarding Menstrual Hygiene and HPV Vaccine

Table5.1(a). *Correlation between knowledge and attitude regarding menstrual hygiene*

Variables	Karl Pearson correlation	P value
Knowledge	0.216	0.05
Attitude		

The table 5.1 reveals that there is positive correlation (r=0.3385) among knowledge and attitude.

Table5.2(b). *Correlation between knowledge and attitude regarding HPV vaccine*

Variables	Karl Pearson correlation	P value
Knowledge	0.176	0.05
Attitude		

The table 5.2 reveals that there is positive correlation (r=0.176) exist among knowledge and attitude.

Nursing Implications

Nursing is built on a body of knowledge discreetly synthesized from physical, biological, and social science and uniquely applied as a humanistic discipline of caring for people where ever they are recognizing the health care needs of patients. Nurses must incorporate scientific knowledge and technical advances into their practice to assist the patients in remaining well and functioning at the maximum level. The nursing implications of the study could be discussed under nursing practice, nursing education, nursing administration, and nursing research.

Nursing practice

"Prevention is better than cure" and the health promotion is valued much. Nurses are the key persons of the health team, who play a major role in health which should be simple, clear and understandable that can be studied at their own with other family members. Nursing personnel working in various units of hospital will be find opportunities to teach and improve the knowledge regarding menstrual hygiene and HPV vaccine.

Nursing Education

As a nurse educator, there are abundant opportunities for nursing professionals to educate the patients and others. The study has proved that the knowledge of the adolescent girls regarding menstrual hygiene and HPV vaccine is not satisfactory. Nurses must be abreacting with new technologies, new approaches and techniques. Findings should be included in the nursing curriculum and then only there is abundant opportunity for nursing professionals to educate others using most effective way.

Nursing Administration

Nursing administrators should take interest in motivating the nursing personnel to improve their

professional knowledge and skill by attending health conferences, workshops, seminars and training programmes. The primary focus of today's health administration is to deliver cost-effective care and ensure patient satisfaction. The nursing administrators should arrange regular in-service education programme.

Nursing Research

Research help the health providers to develop a systemic problem solving approach to improve and develop strategies for the adolescent girls to gain knowledge regarding menstrual hygiene and HPV vaccine. This study yield fruitful outcomes that are of great help in addressing arising problems. The nurse researcher may effectively use the result of these study and develop clear knowledge on menstrual hygiene and HPV vaccine for promoting health of the adolescent girls.

Limitations

- The study was confined to a small sample selected by random sampling which restrict the generalisability.The study limited to the adolescent girls who are willing to participate in the study. The study is limited to the selected higher secondary school in Kannur District only.

Recommendations

Keeping in view the findings of the present study, the following recommendations are made for further studies are, similar study can be conducted on a large sample which may help to drew more definite conclusion and make generalisation. A similar study can be conducted among girls of 13-19 years in total rural and urban population in different settings like various schools, colleges etc.

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