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A Study to Assess the Effectiveness of Structured Teaching Programme Regarding Human Papilloma Virus Infection and Cervical Cancer on Knowledge, Perceptions and Preventive Behaviors among College Girls in Selected Colleges of District, Patiala, Punjab

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ABSTRACT

Introduction: Cervical cancer is the second most common cancer in women worldwide and the most common in women of under-developed and developing countries.

Aim: This paper is aims to assess the effectiveness of structured teaching programme about Human Papilloma Virus infection and Cervical Cancer on the knowledge, perceptions and preventive behaviors of college girls.

Material & method: A quasi-experimental non randomized control group research design is used in the present study. The sample size was 40 college girls who were selected through purposive sampling technique from colleges of district Patiala and 20 samples each were kept in experimental and control groups. Demographic, self structured knowledge questionnaire and check list for assessing perceptions and preventive behaviors instruments were used to collect the data for study.

Results: In control group, mean pretest knowledge score was 2.8±1.20 and mean post test knowledge score was 3.65±1.81. In experimental group, mean pretest knowledge score was 3.45±1.93 and mean post test knowledge score was 17.15±2.76. So, there is statically significant difference in the mean pre and post test knowledge scores of college girls at 0.05 level of significance in experimental group. The results of the study also show that there is statically significant difference in the mean pre and post experimental perception and preventive behaviour score of college girls at 0.05 level of significance in experimental group. Only source of information shows significant association (F=19.142, df=2.17) with pretest knowledge regarding human papilloma virus infection and cervical cancer in control group at 0.05 level of significance.

Conclusion: This study can further be used as a preventive measure for creating awareness and maintaining healthy behavior patterns in different settings among students.

Keywords: *Structured Teaching Programme, Human Papilloma Virus infection, Cervical Cancer, Knowledge, Perceptions, Preventive Behaviors, College Girls, Patiala, Punjab*.

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INTRODUCTION AND BACKGROUND OF THE STUDY

Cervical cancer is the second most common cancer in women and very serious public health problem, which cause death to almost 274,000 out of around 500,000 women every year having cervical cancer[1]. The problem

of cervical cancer in India is the single largest killer of middle-aged women and it bears about one fifth of the world's disease burden in the country[2]. As per the available data, more than 100,000 new cases are detected every year in India and causes almost 20% of all female deaths[3]. The data also indicates that about 75-80% of the cases are reported in advanced stage[4]. This problem is still haunting India, inspite of this being a preventable disease[5]. The early stages of cervical cancer may be completely asymptomatic and indications of presence of malignancy are vaginal bleeding, contact bleeding or (rarely) a vaginal mass[6]. The early detection and treatment of cervical precancerous lesions are important to reducing cervical cancer morbidity and mortality[7,8]. Screening test for cervical infection of HPV, the primary cause of cervix cancer, has proved to be more effective[9]. The best ways to prevent the development of cervical cancer are practicing safe sex, regular screening tests, and vaccination[10]. The incidence and mortality related to cervical cancer and other cancers can be reduced by acquiring knowledge about HPV and its role after an abnormal screening test[11].

LITERATURE REVIEW

In a more recent American study (2009) in which knowledge about HPV and HPV vaccine was assessed in 4 different states among 202 adults in the general population, the majority (93%) had heard of HPV and 84% knew it caused cervical cancer. Eighty-seven percent had heard of HPV vaccine but only 18% knew the vaccine was used to protect against cervical cancer[12]. In a 2009 South African study, in Cape Town, 100 women attending an anti-retroviral clinic were randomly selected and interviewed about their knowledge of cervical cancer and Pap smears. 78% of them had never heard about cervical cancer, 59% reported having had a pap smear and about 40% did not know what the pap smear was used for[13]. In 2010, attitudes, knowledge and beliefs about HPV and cervical cancer among 86 females aged 18-44 years attending an ante-natal clinic in Johannesburg, South Africa were examined. 61% of the participants had heard of cervical cancer, and only 29% had heard of HPV[14].

OBJECTIVES

To assess the pretest knowledge, perceptions and preventive behaviors on human papilloma virus infection and cervical cancer among college girls in experimental & control group.

1. To assess the baseline knowledge, perceptions and preventive behaviors on Human Papilloma Virus infection and Cervical Cancer among the experimental & control group.
2. To develop and implement the structured teaching programme regarding Human Papilloma Virus infection & cervical cancer.
3. To assess the post test knowledge, perceptions and preventive behaviors regarding Human Papilloma Virus Infection and Cervical Cancer among the experimental group and control group.
4. To find out the effectiveness of structured teaching programme regarding Human Papilloma Virus infection & cervical cancer on knowledge, perception and preventive behavior among college girls.
5. To find out the relationship between the knowledge, perception & preventive behavior regarding Human Papilloma Virus Infection and Cervical Cancer between the experimental & control group.
6. To find out the association between demographic variables and the outcome variables of the subjects under study.

METHODOLOGY

RESEARCH APPROACH

Quantitative Approach was used for the present study.

RESEARCH DESIGN

Quasi Experimental Non-Randomized Control Group Design was used to accomplish the objectives of the study.

O1 x O2

O1 O2

SELECTION & DESCRIPTION OF FIELD FOR THE STUDY

The study was conducted in selected colleges of district Patiala, Punjab.

SAMPLE SIZE AND SAMPLING TECHNIQUE

40 college girls were selected as study subjects who are pursuing graduation degree programme (Non-medical) in the selected colleges of district Patiala, based

upon the inclusion and exclusion criteria. The proposed sample was selected by purposive sampling technique as they were agreed to participate in the study.

TOOLS OF STUDY

After a comprehensive review literature, expert's opinion & researcher's own experience, the researcher developed an instrument to assess knowledge, perceptions and preventive behaviors regarding Human Papilloma Virus infection and cervical cancer.

For Assessing Perceptions & Preventive behaviors - A check list based on the construct of Health Belief Model are used which is perceived threat (perceived seriousness & perceived susceptibility) towards Human Papilloma Virus infection & cervical cancer & also on their health behavior patterns for prevention against The researcher developed a Structured Teaching Programme on Human Papilloma Virus Infection and the Cervical Cancer.

The researcher developed a Structured Teaching Programme on Human Papilloma Virus Infection and the Cervical Cancer.

DATA COLLECTION PROCEDURE

The formal written permission was obtained from the Principals of the selected colleges. The data collection was done during January 2016. The study was conducted on college girls pursuing graduation degree programme. Total 40 college girls were selected based on inclusion and exclusion criteria through purposive sampling technique. Informed written consent was obtained. Group was divided into experimental and control group. Pretest was conducted on both in experimental and control group. Structured teaching programme was given to experimental group only. After 15 days, post test was conducted on both groups.

DATA ANALYSIS

The data analysis work was done by using descriptive and inferential statistics such as mean, percentage, standard deviation, paired and unpaired t test and ANOVA test. The results of the study were interpreted accordingly.

RESULTS

Table 1: Demographic variables of subjects in experimental & control group. N=40

Demographic variables	**Categories**	**Experiment group n = 20 Frequency**	**Percentage (%)**	**Control group n = 20 Frequency**	**Percentage(%)**
Age (in years)	1 2 3	9 8 3	45 40 15	9 7 4	45 35 20
Stream of graduation	1 2 3	9 7 4	45 35 20	9 6 5	45 30 25
Religion	1 2 3 4	6 0 2 12	30 0 10 60	5 4 0 11	25 20 0 55
Family income	1 2 3	6 10 4	30 50 20	6 8 6	30 40 30

***Cont.*.. Table 1: Demographic variables of subjects in experimental & control group. N=40**

Type of family	1 2 3	9 9 2	45 45 10	9 9 2	45 45 10
Place of residence	1 2 3	11 2 7	55 10 35	10 4 6	50 20 30
Source of information	1 2 3	10 6 4	50 30 20	10 5 5	50 25 25
No of sexual partner	1 2 3	0 0 20	0 0 100	0 0 20	0 0 100

Table 1 shows that out of 40 girls, in control group 45% were in age group of 17-18 years followed by 35% in 19-20 years and remaining 20% in 21-22 years of age group and similarly in experimental group, majority of sample 45% were in age group of 17-18 years followed by 40% in 19-20 years and remaining 15% in 21-22 years of age group. Table shows that in control group 45% were in arts, 30% commerce and remaining 25% in non-medical streams. In experimental group, 45% were in arts, 35% commerce and 20% were in non-medical streams. In case of religion wise distribution of data in control group, 55% were Sikh, 25% were Hindu, 20% were from Muslim religion. In experimental group, 60% belongs to Sikh, 30% Hindu and only 10% were belongs to Christian community. As far as the family income is concern, 40% were falls in 15000-30000 range of income, 30% of has more than 30000 and equal proportion were having less than 15000 annual income. Similarly, in experimental group, 50% were in 15000-30000, 30% in 15000 and 20% have family income more than 30000. In case of type of family, data shows that in both control and experimental groups, 45% have nuclear family, same proportion 45% have joint family, and only 10% have extended family type. In case of place of residence, in control group50% belongs to rural, 30% urban and 20% to semi-rural. Similarly, in experimental group, 55% belongs to rural, 35% to urban and 10% to semi-urban. In accordance to source of information, in control group 50% use mass media, 25% from family members/relatives/friends and equal proportion 25% from health care professionals. While in experimental group, 50% use mass media, 30% from family members/relatives/friend, and remaining 20% from health care professionals.

Table 2: Pre and post test knowledge on human papilloma virus infection and cervical cancer among college girls in experimental & control group. N = 40

Level of knowledge	**Score**	**Experimental group (n=20)**				**Control group (n=20)**			
		Pre test		**Post test**		**Pre test**		**Post test**	
		F	**%**	**f**	**%**	**F**	**%**	**f**	**%**
Good		0	0	16	80	0	0	0	0
Average		0	0	4	20	0	0	0	0
Poor		20	100	0	0	20	100	20	100

Table 2 shows that, in pretest all the respondents of both experimental and control group had poor level of knowledge. In post test of experimental group 80% have good knowledge and 20% average. While in control group, all the respondents have poor knowledge. Thus, it shows that structured teaching programme was effective; it helped the respondents to increase their knowledge about subject matter.

Table 3: Perceptions and preventive behaviors on human papilloma virus infectionb and cervical cancer among college girls in experimental & control group. N=40

Perception and preventive behavior	Experimental group (n=20)				Control group (n=20)			
	Pre test		Post test		Pre test		Post test	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Perceived susceptibility	0.3	0.45	3	0	0.25	0.42	0.3	0.44
Perceived severity	0	0	0.5	0.5	0.65	0.46	0.65	0.46
Perceived barrier	0.45	.48	2.55	.48	0.25	0.52	0.25	0.52
Self efficacy	0.4	0.48	0	0	0.35	0.46	0.45	0.48
Preventive behaviour	0.5	0.74	5.4	.48	0.6	0.48	0.55	0.48
Grand total	1.6	.8	12.35	2.36	2.15	.85	2.2	.92

In experimental group, mean pre-experimental perception and preventive behaviour score was 1.6±0.8 and mean post experimental perception and preventive behaviour score was 12.35±2.36. In control group, mean pre-control perception and preventive behaviour score was 2.15±0.85 and mean post control perception and preventive behaviour score was 2.2±0.92.

Table 4: Relationship of knowledge regarding human papilloma virus infection and cervical cancer between the experimental & control group. N=40

Observation Group	Pretest	Post –test	Paired 't' test
	Mean SD	Mean SD	
Experimental group (n=20)	3.45 1.93	2.8 1.20	't' = 26.97* df=19
Control group (n=20)	2. 8 1.20	3.65 1.81	't' = 0.55^{NS} df=19
Unpaired 't' test	't'= 1.28^{NS} df = 38	't' = 15.64* df = 38	

While comparing the pre and post test knowledge score in experimental group, paired t test value was 26.97, df=19, which is found significant at 0.05 level of significance and while comparing post test knowledge score in experimental and control group, unpaired t test value was 15.64, df=38, which is also found significant at 0.05 level of significance. There was no statistically significant difference in pre and post test knowledge score of control group and pre test knowledge of both experiment and control group.

Table 5: Relationship of perception & preventive behavior regarding human papilloma virus infection and cervical cancer between the experimental & control group. N=40

Observation Group	Scale score		Paired 't' test
	Pretest	Post –test	
	Mean SD	Mean SD	
Experimental group (n=20)	1.6 0 .8	12.35 2.36	't' = 56.57* df=19
Control group (n=20)	2. 15 0.85	2.2 0.92	't' = 0.13^{NS} df=19
Unpaired 't' test	't'= 2.29 * df = 38	't' = 18.45* df = 38	

While comparing the pre and post test perception & preventive behavior score in experimental group, paired t test value was 56.57, df=19, which is found significant at 0.05 level of significance and while comparing post test perception & preventive behavior score in experimental and control group, unpaired t test value was 18.45, df=38, which is also found significant at 0.05 level of significance. There was no statistically significant difference in pre and post test perception & preventive behavior score of control group but there was statistically significant difference found in pre test perception & preventive behavior score of both experiment and control group.

DISCUSSION

The results of the study shows that the most of the respondents fall in the age group of 17-18 as mentioned in the table 1 of the study. The education wise-distribution of respondents shows that most of the i.e. 45% were doing graduation in arts stream. The table 1 also shows that majority of the respondents belongs to rural areas with 50% responses. In accordance to source of information, majority of the respondents indicated mass media as their source of information with 50% responses. Similar study conducted on the subject support the results [14]. The results indicate that, in pretest all the respondents of both experimental and control group had poor level of knowledge. Some studies support the results of this study as although awareness of Human Papilloma Virus vaccine was high among the population, the benefit of the vaccine was not clear to them [12, 13].

CONCLUSION

The structured teaching programme regarding human papilloma virus infection and the cervical cancer was instructionally effective, appropriate and feasible for improving knowledge, perceptions and preventive behaviors of college girls. It can further be used as a preventive measure for creating awareness and maintaining healthy behavior patterns in different settings among students.

Ethical Clearance: Taken from College Ethical Committee of Swift Institute Nursing,
Patiala.

Source of Funding: Self

Conflict of Interest: Nil

REFERENCES

1. World Health Organization (WHO), PATH, and the United nations population fund (2009). Cervical cancer, human papilloma virus (HPV), and HPV vaccines: Key points for policymakers and health professionals. Geneva, CH: WHO; 2007. Available at: www.who.int/reproductive-health/publications/cervical_cancer_keypoints/cerv_cancer_ hpv_keypts.pdf. Accessed December 31, 2016.
2. World Health Organization (WHO) (2010). Human papillomavirus infection and cervical cancer. Available at: www.who.

int/vaccine_research/diseases/hpv. Accessed December 20, 2016.

3. Shanta V. Perspectives in cervical cancer prevention in India, (2003). The international network for cancer treatment and research.
4. National Cancer Registry Programme (2006). An overview. Indian Council Med Res, New Delhi.
5. Saha, A. et. al. (2010) Awareness of Cervical Cancer Among Female Students of Premier Colleges in Kolkata, India. Asian Pacific Journal of Cancer Prevention. Available at: http://www.apocpcontrol.net/paper_file/issue_abs/Volume11_No4/c108590%20Chatterje e.pdf. Accessed December 31, 2016.
6. Cancer of the Cervix. http://vcarecancer.org/wp-content/uploads/2015/11/CANCER-OF-THE-CERVIX-1.pdf. Accessed December 31, 2016.
7. Canavan TP, Doshi NR (2000). "Cervical cancer.". Am Fam Physician, 61, 1369-76.
8. Peto J, Gilham C, Fletcher O, et al (2004). The cervical cancer epidemic that screening has prevented in the UK. Lancet, 364, 249-56.
9. Free K, Roberts S, Bourne R, et al (1991). Cancer of the cervix: Old and young, now and then. Gynecol Oncol, 43, 129-36.
10. Hayden, C. (2006). 2007 Utah's health: An annual review. Retrieved October 18, 2007, from http://uuhsc.utah.edu/coe/womenshealth/research/womens%20Health%20in%20. Accessed December 31, 2016.
11. Likes, W.M., & Itano, J. (2003). Human papillomavirus and cervical cancer: Not just a sexually transmitted disease. Clinical Journal of Oncology Nursing, 7, 271-276.
12. Ragin CC, Edwards RP, Jones J, Thurman NE, Hagan LK, Jones EA et al. Knowledge about human papillomavirus and the HPV vaccine – a survey of the general population. Infect Agent Cancer 2009; 4(1): S10.
13. Wake RM, Rebe K, Burch VC. Patient perception of cervical screening among women living with human immuno- deficiency virus infection attending an antiretroviral therapy clinic in urban South Africa. J Obstet Gynaecol 2009; 29(1): 44-8.
14. Francis SA, Nelson J, Liverpool J, Soogun S, Mofammere N, Thorpe RJ Jr. Examining attitudes and knowledge about HPV and cervical cancer risk among female clinic attendees in Johannesburg, South Africa. Vaccine. 2010; 28(50): 8026-32.