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Estimating the Prevalence of Knowledge Regarding Cancer of Cervix among College Going Girls in a Degree College of North India

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ABSTRACT

Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. We plan this quasi experimental study among college going girls of Kangra City with the following objectives to estimate the baseline awareness regarding the knowledge, behaviours and beliefs about Ca Cervix, its risk factors, and prevention methods. We conducted this cross sectional observational study among college going girls in Government degree college Dharamshala over a period of three months. Self designed, structured, self-administered anonymous close-ended questionnaire was adopted for the data collection of the study. The questionnaire was pretested in a different study setting comprising of similar study population. We defined poor knowledge as score obtained less than 50% of the maximum marks. The data was collected from 397 study participants. The mean age of the study participants was 20.6 years (SD=1.55, Range=17 to 21 years). The mean score had no relation with the type of school last attended before getting admission in the college and the type of locality they belonged to. The overall score, however, came out to be 10.9(SD=3.8) out of a maximum score of 33, which comes out to be nearly 33% and hence the knowledge was found to be poor amongst the study participants. Although the health programs already exist for prevention of cervical cancer in our country, IEC/IPC activities should be promoted in generating the awareness among the young population especially the college going girls.

Keywords: Cancer, Cervix, North India.

INTRODUCTION

Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers.[1]Approximately 90% of deaths from cervical cancer occur in low- and middle-income countries.[2] India is a developing country with a population of 1.3 billion people of which 0.65 billion are females.[3] Nearly 23% of females are in the reproductive age group (15-49 years) among whom 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.

Ca Cervix is also the commonest cancer among women in Himachal Pradesh (HP) as per the annual report 2015 of 'Regional Cancer Centre (RCC), Shimla, Himachal Pradesh. On an average about 250 confirmed cases of cancer cervix are reported by RCC Shimla every year.[4] Despite existence of national guidelines, the cancer cervix screening coverage in India is appalling and is mainly attributed to inequality between infrastructure, resources and outsized population. Various studies have shown that several factors may affect a woman's ability and desire to participate in cervical cancer prevention programs.[5] Some

of them being lack of awareness of disease or symptoms, not knowing where to go, very little or no knowledge about the risk factors, prevention including vaccines available and treatment options.[6,7]

Until the knowledge of the disease among the women of reproductive age group and its causative factors is clearly understood, there is no prospect of prevention of the disease. However, without having baseline information about their awareness about Ca cervix, it is difficult to improve utilization of prevention services.[8,9] We plan this quasi experimental study among college going girls of Kangra City with the following objectives to estimate the baseline awareness regarding the knowledge, behaviours and beliefs about Ca Cervix, its risk factors, and prevention methods.

METHODOLOGY

We conducted this cross sectional observational study among college going girls in Government degree college Dharamshala over a period of three months. The institution offers Bachelor's Degrees in three mainstreams of studies: Arts, Science and Commerce for which students come from different parts of the state of different types of schools and belonging to different backgrounds of the society, thus making it a suitable institution for study. We used a multistage sampling technique. First stage sampling was a stratified sampling to choose the streams of different courses in the college. In second stage, again stratified sampling was done according to the year of course in which the participants were studying. Final stage sampling was a simple random sampling using computer generated random numbers to select the participants proportionate to each year in which they were studying. Our study included First year to Final year students of Bachelor's degree, that is, Bachelor of Arts, Bachelor of Science, and Bachelor of Commerce. Self designed, structured, self-administered anonymous close-ended questionnaire was adopted for the data collection of the study. The questionnaire was pretested in a different study setting comprising of similar study population. We defined poor knowledge as score obtained less than 50% of the maximum marks.

DATA ANALYSIS

We collected, entered and cleaned the data using Microsoft excel spreadsheet. The quantitative variables were expressed in terms of means and standard deviation, whereas the qualitative data was expressed in terms of frequencies and proportions along with 95% Confidence Intervals

RESULTS

Table 1: Socio-demographic profile of study participants (n=397)

Variables		
	Frequency	Proportion (%)
Stream		
Bachelor of Arts	272	68.5
Bachelor of Science	77	19.4
Bachelor of Commerce	48	12.1
Age group		
≤18 years	47	11.8
19-21 years	189	47.6
>21 years	161	40.6
Socio-Economic Scale		
Upper Class	64	16.1
Upper Middle Class	95	23.9
Middle Class	127	31.9
Lower Middle Class	68	17.1
Lower Class	43	10.8
Religion		
Hindu	232	58.4
Muslim	63	15.9
Others	102	25.7
Type of School last attended		
Government	243	61.2
Private	137	34.5
Others	17	4.3
Father's Education		
Below Matriculation	113	28.5
Matriculation to Graduation	170	42.2
Above Graduation	114	28.7
Mother's Education		
Below Matriculation	161	40.5
Matriculation to Graduation	175	44.1
Above Graduation	61	15.4
District		
Kangra	191	48.1
Others	206	51.9
Locality		
Rural	296	74.6
Urban	101	25.4
Duration of stay in Kangra		
<5 years	49	12.3
5-10 years	168	42.3
>10 years	180	45.4
Staying with		
Family	273	68.8
Friends	109	27.4
Others	15	3.8

The data was collected from 397 study participants. The mean age of the study participants was 20.6 years (SD=1.55, Range=17 to 21 years) A majority of the study participants were pursuing their Bachelor's degree in the stream of Arts and had attended government school before getting admission in the college. The educational background of the parents of most of the study participants was up to graduation and they belonged to middle class according to the modified B.G Prasad Scale of socio-economic status, 2017. Out of the twelve districts of Himachal Pradesh, nearly 48% of the study participants hailed from district Kangra, and rest represented the remaining districts of the state. (Table 1)

The study revealed that the test score was found to be significantly higher among the participants pursuing their Bachelor's degree in the stream of Science as compared to the other streams. The participants with age more than 21 years were found to have a higher combined mean score than the younger age groups. The participants who belonged to the upper socio-economic status had significantly attained more score than the participants belonging to other socioeconomic strata. The mean overall score was also high in the study participants whose parents had attained a higher educational qualification and those who were living in the hostel.

Table 2: Comparison of mean score of the study participants on the basis of various socio-demographic variables (N=397)

Characteristics	n	%	Score (mean± sd)	p-value
Stream				<0.001
Bachelor of Arts	272	68.5	10.0 ± 2.8	
Bachelor of Science	77	19.4	10.4 ± 3.9	
Bachelor of Commerce	48	12.1	10.1 ± 3.2	
Age group				
Upto 18 years	47	11.8	8.8 ± 1.9	<0.001
19-21 years	189	47.6	10.1 ± 3.0	
>21 years	161	40.6	12.4 ± 4.4	
Socio-Economic Scale				
Upper Class	64	16.1	16.4 ± 2.6	<0.001
Upper Middle Class	95	23.9	12.4 ± 2.3	
Middle Class	127	31.9	11.5 ± 2.4	
Lower Middle Class	68	17.1	10.1 ± 0.8	
Lower Class	43	10.8	7.1 ± 1.2	
Religion				
Hindu	232	58.4	12.5 ± 4.2	<0.001
Muslim	63	15.9	9.9 ± 2.9	
Others	102	25.7	11.9 ± 4.7	
Type of School last attended				
Government	243	61.2	10.9 ± 3.7	0.157
Private	137	34.5	10.6 ± 3.8	
Others	17	4.3	12.4 ± 4.1	
Father's Education				
Below Matriculation	113	28.5	11.4 ± 3.4	<0.001
Matriculation to Graduation	170	42.2	10.4 ± 2.6	
Above Graduation	114	28.7	12.5 ± 3.3	
Mother's Education				
Below Matriculation	161	40.5	10.9 ± 3.2	0.016
Matriculation to Graduation	175	44.1	11.3 ± 3.3	
Above Graduation	61	15.4	12.1 ± 2.4	
District				
Kangra	191	48.1	11.8 ± 2.8	<0.001
Outside Kangra	206	51.9	10.8 ± 3.4	
Locality				
Rural	296	74.6	11.2 ± 3.1	0.578
Urban	101	25.4	11.4 ± 3.3	
Duration of stay in Kangra				
<5 years	49	12.3	9.9 ± 4.4	0.015
5-10 years	168	42.3	10.6 ± 4.1	
>10 years	180	45.4	11.4 ± 2.4	
Place of stay				
With Family	273	68.8	10.3 ± 3.4	<0.001
Hostel	109	27.4	12.5 ± 4.2	
Others	15	3.8	10.4 ± 4.2	

It was also seen that the study participants who belonged to district Kangra had achieved a greater score in comparison to those who belonged to other districts of Himachal Pradesh. The duration of stay in Kangra for more than 10 years was also found to be significantly associated with the higher mean score of the study participants.

However, the mean score had no relation with the type of school last attended before getting admission in the college and the type of locality they belonged to. (Table 2)The overall score, however, came out to be 10.9(SD=3.8) out of a maximum score of 33, which comes out to be nearly 33% and hence the knowledge was found to be poor amongst the study participants.

DISCUSSION

The average score for each subgroup of the knowledge our study revealed a poor baseline knowledge with regards to the risk factors, warning signs, screening and vaccination of cancer of cervix. This is in concordance with the study conducted by YY Tan et al.[10] Geroge Koshy et al[11] conducted a questionnaire based cross-sectional study in which they found that knowledge of the college going students was very poor and only 9% of the study participants thought that cancer of cervix was incurable and would lead to death. This highlights the importance of a continued educational intervention to increase the awareness regarding cervical cancer.

The study revealed that the test scores were found to be significantly higher among the participants pursuing their Bachelor's degree in the stream of Science as compared to the other streams. This can be supported by the fact of more biological exposure among the BSc students. It was also seen that the overall score was not significantly associated with the type of locality. This lies parallel to the study done by T Monisha et al where they conducted a cross-sectional study among female students of a pre-university college where they did not find any statistical association between the type of locality, whether urban or rural, with the level of awareness. The participants with age more than 21 years, however, were found to have a higher combined mean score than the younger age groups possibly because of more educational exposure with increasing age.[12]

The participants who belonged to the upper socio-economic status had significantly attained more score than the participants belonging to other socioeconomic strata. The mean overall score was also high in the study participants whose parents had attained a higher educational qualification and those who were living in the hostel. These findings are in concordance with a cross sectional study conducted by G Narayana et al where they found the awareness level towards cervical cancer to be significantly associated with higher socio-economic status and the level of education.[13]

It was also seen that the study participants who belonged to district Kangra had achieved a greater score in comparison to those who belonged to other districts of Himachal Pradesh. The duration of stay in Kangra for more than 10 years was also found to be significantly associated with the higher mean score of the study participants. This could possibly be due to the fact that a majority of the families prefer to send their children to a city over the villages and small towns for obtaining better education.

CONCLUSION AND RECOMMENDATION

Although the health programs already exist for prevention of cervical cancer in our country, IEC/IPC activities should be promoted in generating the awareness among the young population especially the college going girls.IEC/IPC activities and other specific interventions should focus more on young girls belonging to low socio-economic status and those students where the parental education has been found to be low right from the enrolment in the college.

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