



Knowledge of Human Papilloma Virus (HPV) in First Year Medical Students from San Juan Bautista School of Medicine, Caguas, Puerto Rico During Second Semester, 2013: A Pilot Study

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Introduction

Human Papilloma Virus (HPV) infection is considered one of the most common sexually transmitted diseases (STD) among young and sexually active individuals. It has been established that almost all cervical cancer is caused by HPV.¹ Globally, HPV infection is responsible for approximately 530,000 new cases and 275,000 deaths from cervical cancer annually.² College students in medical and related health fields are future health care professionals who can help raise the awareness of the public about cervical cancer and its prevention.³ Also, future medical care professionals will be responsible for the prevention, treatment of STDs and promotion of healthy lifestyles in the individuals.

Current medical students need to have the knowledge regarding HPV infection in order to educate vulnerable population groups.

It is important to assess the knowledge about HPV in a population of medical students in order to describe the current level and sources of HPV information to improve education programs at medical schools

Specific Aim

To describe the knowledge concerning HPV infection among medical students enrolled in the first year term at San Juan Bautista School of Medicine (SJBSOM), Caguas, Puerto Rico.

Methods

Our study consisted of a descriptive cross-sectional survey using a non-probabilistic sample. A self-administered questionnaire developed by Jiménez-Herrera (2007)⁴ concerning HPV infection knowledge was administered between January and February 2013 to 53 medical students enrolled in the first year medical program of SJBSOM. Variables such as sex and age were collected. In order to classify the level of knowledge about HPV infection an index developed by Jiménez-Herrera was used. This index uses a scale based on the sum of the affirmative answers of the questionnaire ranging from 0-1 (low), 2-3 (moderate) and 4-5 (higher) knowledge. Descriptive statistics were performed using IBM-SPSS version 17.0.

Results

Table 1. Global distribution of answers from the HPV questionnaire among first year medical students from SJBSOM during second semester of the academic year 2013

Questions regarding HPV	YES		NO	
	N	%	N	%
Heard about HPV	53	100	0	0
Mode of transmission	47	88.7	6	11.3
Knowledge of symptoms	30	56.6	23	43.4
Treatment knowledge	25	47.2	28	52.8
Related with cancer	50	94.3	3	5.7

Table 2. Distribution of answers from the HPV questionnaire according to sex among first year medical students from SJBSOM during second semester 2013

Questions regarding HPV	WOMEN				MEN			
	YES N	%	NO N	%	YES N	%	NO N	%
Heard about HPV	24	100	0	0	29	100	0	0
Mode of transmission	21	87.5	3	12.5	26	89.7	3	10.3
Knowledge of symptoms	13	54.2	11	45.8	17	58.6	12	41.4
Treatment knowledge	16	66.7	8	33.3	9	31	20	69
Related with cancer	24	100	0	0	26	89.7	3	10.3

Table 3. Distribution of where HPV knowledge was acquired according to gender among first year medical students from SJBSOM during second semester 2013

Sources of HPV information	WOMEN		MEN	
	N	%	N	%
Media press	7	30.4	4	16
Preventive mass campaigns	1	4.3	1	4
High school	1	4.3	4	16
College	5	21.7	10	40
Infected individuals	1	4.3	1	4
Friends and family members	4	17.4	4	16
Health professional	4	17.4	1	4

Discussion

- A total of 53 students participated in the study. 55% were men (n=29) and 45% were women (n=24). The median age for men was 25.6±5.6 years and the median age for women was 25.0±3.0 years. All study participants had heard about the HPV infection and its relation with cancer. More than a half of the surveyed students (54.2%) have knowledge about HPV symptoms.
- A higher percent of the women (66.7%) had knowledge about HPV treatment. While a small percent of men (31%) indicated knowledge about HPV treatment.
- Among women the principal information sources about HPV were: media press (30.4%), college studies (21.7%), friends and family members (17.4%) and health professionals (17.4%). The leading sources of information about HPV among men were: college studies (40%), high school studies (16%), media press (16%) and friends and family members (16%).

Conclusions

- The majority of the participants had heard about HPV infection and its relation with cancer.
- More than a half of the women surveyed indicated knowledge about HPV symptoms. Less than a half of the men mentioned knowledge about HPV treatment.
- Media press and college studies were the main sources of information about HPV for women and men respectively.

Recommendations

- Comparative studies are recommended including medical students enrolled on different medical year programs and in other medical schools programs.
- Design future research regarding the awareness of HPV vaccines among medical students. Also it is important to include socio-demographic variables and sexual health behavior variables related with HPV infections.
- Evaluate the existing medical programs curriculums in order to provide accurate information regarding STDs to medical students.

References

- Centers for Disease Control and Prevention, (n.d.). *Human papilloma virus (HPV): HPV and cancer*. Retrieved from <http://www.cdc.gov/hpv/cancer.html>
- C., Choi H., Hong, S., Hur, S., Kee, M., Kim, K., Kim, S., Kim, T., Koo, Y., Lee, J., Lee, S., Lee, W., Park, J., & Rhee, J. (2012). Establishment of Korea HPV cohort study. *Journal of Gynecologic Oncology Vol. 24(1):59-65*. Retrieved from <http://www.dx.doi.org/10.3802/jgo.2013.24.1.59>
- Rashwan, H. H., Saat, N.Z. Abd Manan, D.N. (2012). Knowledge, attitude and practice of Malaysian medical and pharmacy students towards human papilloma virus vaccination. *Asian Journal Pacific of Cancer Prevention, 13(5), 2279-83*. Retrieved from http://www.apocpcontrol.org/page/apjcp_issues_view.php?sid=Entrez:PubMed&id=pmid:22901207&key=2012.13.5.2279
- Jiménez Herrera, (2007). Conocimiento de estudiantes de la Universidad de Costa Rica sobre el virus del papiloma humano, durante el II ciclo lectivo Del año 2006, Costa Rica [Knowledge among students of the University of Costa Rica regarding human papilloma virus during second semester 2006, Costa Rica]. *Revista Costarricense de Salud Pública, 16(31), 42-47*. Retrieved from <http://www.scielo.sa.cr/pdf/rcsp/v16n31/3751.pdf>

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