

The Awareness of the HPV's Association with Cervical Cancer and PAP Smear among Saudi Females

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Abstract: Introduction: Cytological screening, the Papanicolaou smear (Pap smear) has been one of the most successful public health measures available for cervical cancer screening and prevention. The aim of our study was to assess the knowledge and the attitude toward the cervical cancer screening (the Pap smear) among women in Saudi Arabia. **Methodology:** A cross-sectional study, self-administered questionnaires were sent out to school teachers, relative, friends between the period November to December 2011, a random sample of 1023 women most of them aged between 16 and 45 years old were recruited. **Result:** We found 37% of the population never heard about the Pap smear test, among who heard about the test; 36% knew through the media. The majority of the married population (95%) does not perform the Pap smear test regularly and most of them never had PAP smear done. The main reason for not having a Pap smear was the lack of awareness. **Conclusion:** There is a need to educate and promote awareness of cervical cancer and its prevention. This target could be approached in different ways; including the media, medical educational campaigns, brochures...etc.

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Key words: Cervical cancer, Pap smear test, Human papilloma virus, HPV

1. Introduction

Cervical cancer is one of the most prevalent forms of carcinoma affecting women worldwide^[1]. It accounts for 12% of all cancers^[2]. The global data have revealed an estimated 466,000 new cases diagnosed annually^[3]. The age-standardized mortality rate of cervical cancer in developing countries is 9.6 per 100,000 women, which is twice the rate in the developed countries^[4]. The disparity in prevalence between the developing and developed worlds can be attributed to lack of effective cytological screening programs^[8].

Cytological screening (the Papanicolaou smear or Pap smear) has been one of the most successful public health measures available for cancer prevention in women^[5]. Cervical cancer screening is widely available in the developed countries and in most of the cases it is detected at the pre-cancer or early cancerous stage^[6]. Benefits of cervical cancer screening programs in developed countries have been well documented^[8], for instance, Denmark recorded a 25% decline in mortality^[7]. In Norway, a 10% fall in mortality was reported^[7].

The aim of our study was to assess the knowledge about cervical cancer and the attitude toward the Pap smear among the women in Saudi Arabia.

2. Methodology:

This study is a cross-sectional study. One thousand and twenty three randomly chosen women were included in the study, excluding those who are involved in the medical field. Using self-administered questionnaires, that were sent out to school teachers, relative, and friends from November 01 to December 30, 2011.

SPSS program in particular (chi square) was used for data analysis, *p* value was significant if <0.05.

3. Result:

One thousand and twenty three females were interviewed during the interview phase, of which 50.9% of our population is between the age 26 to 45 years and 38.8% were between the ages of 16 to 25 years (Figure 1).

Sixty two percent of the population are married or previously married and 82% never heard about Human Papilloma Virus (HPV). Most of population does not know that HPV can cause more than 99% of cervical cancer (Figure 2).

Among the study population; 56.7% have no idea if the cervical cancer is common in Saudi Arabia or not, 26.3% does know and 17.1% do not think that cervical cancer is prevalent among Saudis (Figure 3).

The study population's awareness showed that 88.8% of whole population has never had a Pap smear; about 30% think it is not important and 22% are bothered by having a Pap smear done. (Figure 4).

By asking if they heard about the pap smear test as screening test for cervical cancer, 39.6% has heard about it, while 37.5% never heard about the test (Figure 5), of those who heard about the test; 36.3% through the media, 21.9% by their physicians, 19.6% through relative and 14.0% through brochures (Figure 6).

Up on asking them if they would; 71.6% of the females would recommends their (Daughter, Friends, Relatives etc.) to perform the test (Figure 7). Most of the married patients (95%) did not perform the pap smear test regularly (Figure 8).

In cross tabulation between educational status and the knowledge of the women about Human Papilloma Virus (HPV); 100% of illiterates, 83.5% of those who have a general education and 85.0% of those who have a bachelor degree or higher have no

idea and never heard about Human papilloma virus . However cross tabulation between educational status and the knowing that Human papilloma virus (HPV) can cause cervical cancer, 80.0% of illiterate, 81,1% of those who have a general education, 83.4% of those who have a bachelor degree or higher have no idea that Human papilloma virus (HPV) can cause cervical cancer. (Figure10). We found no statistical significant relationship between the educational level and Knowledge about HPV ($P = 0.219$), "Table 1". There was also no statistical significant relationship between educational level and knowledge about HPV as a cause for cervical cancer ($P = 0.641$), "Table 2".

The majority of the participants knew about the PAP test through the media while only (23.9%) through their doctor.

Table (1) :Educational background * Have you ever heard about Human Papilloma Virus (HPV) Crosstabulation

			Have you ever heard about Human Papilloma Virus (HPV)		Total
			Yes	No	
Educational background	Illiterate	Count	0	14	14
		% within Educational background	.0%	100.0%	100.0%
		% within Have you ever heard about Human Papilloma Virus (HPV)	.0%	1.7%	1.4%
		% of Total	.0%	1.4%	1.4%
	B)General Education (Elementary, Intermediate, or Secondary)	Count	68	343	411
		% within Educational background	16.5%	83.5%	100.0%
		% within Have you ever heard about Human Papilloma Virus (HPV)	44.7%	41.1%	41.7%
		% of Total	6.9%	34.8%	41.7%
	Bachelor degree or Higher	Count	84	477	561
		% within Educational background	15.0%	85.0%	100.0%
		% within Have you ever heard about Human Papilloma Virus (HPV)	55.3%	57.2%	56.9%
		% of Total	8.5%	48.4%	56.9%
Total	Count	152	834	986	
	% within Educational background	15.4%	84.6%	100.0%	
	% within Have you ever heard about Human Papilloma Virus (HPV)	100.0%	100.0%	100.0%	
	% of Total	15.4%	84.6%	100.0%	

CHI-SQUARE TESTS

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.038a	2	.219
Likelihood Ratio	5.167	2	.076
N of Valid Cases	986		

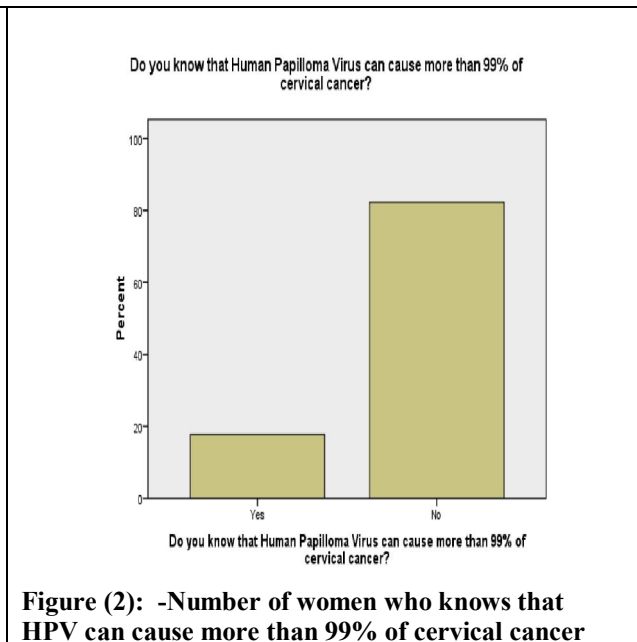
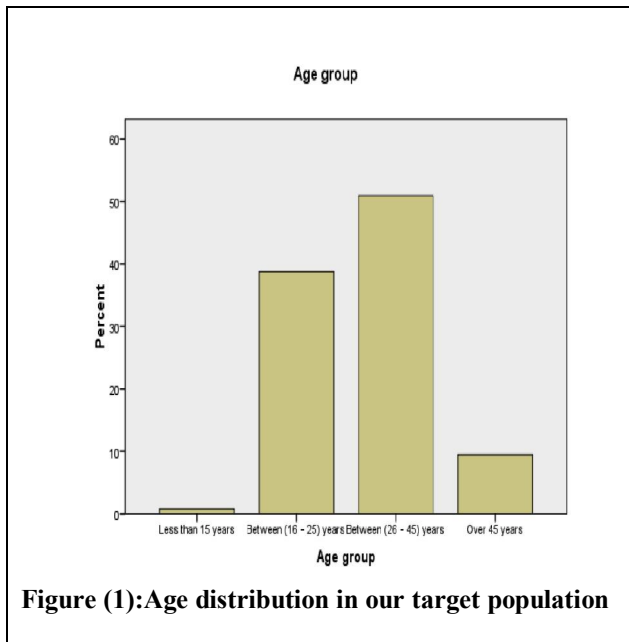
a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.16.

Table (2) :Do you know that Human Papilloma Virus can cause more than 99% of cervical cancer? * Educational background Crosstabulation

		Educational background			Total
		Illiterate	B)General Education (Elementary, Intermediate, or Secondary)	Bachelor degree or Higher	
Do you know that Human Papilloma Virus can cause more than 99% of cervical cancer?	Yes	Count	3	78	94
		% within Do you know that Human Papilloma Virus can cause more than 99% of cervical cancer?	1.7%	44.6%	53.7%
		% within Educational background	20.0%	18.9%	16.6%
		% of Total	.3%	7.9%	17.6%
No	Count	12	335	471	
		% within Do you know that Human Papilloma Virus can cause more than 99% of cervical cancer?	1.5%	41.0%	57.6%
		% within Educational background	80.0%	81.1%	83.4%
		% of Total	1.2%	33.7%	47.4%
Total	Count	15	413	565	
		% within Do you know that Human Papilloma Virus can cause more than 99% of cervical cancer?	1.5%	41.6%	56.9%
		% within Educational background	100.0%	100.0%	100.0%
		% of Total	1.5%	41.6%	56.9%

CHI-SQUARE TESTS			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.891a	2	.641
Likelihood Ratio	.886	2	.642
N of Valid Cases	993		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.64.



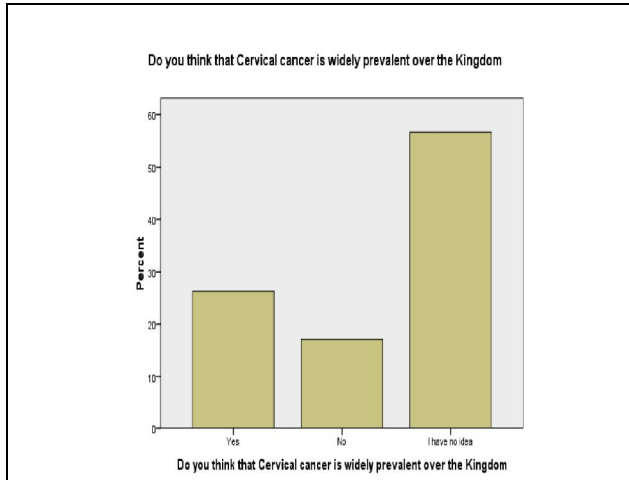


Figure (3) Number of women who think that cervical cancer is widely prevalent in the kingdom

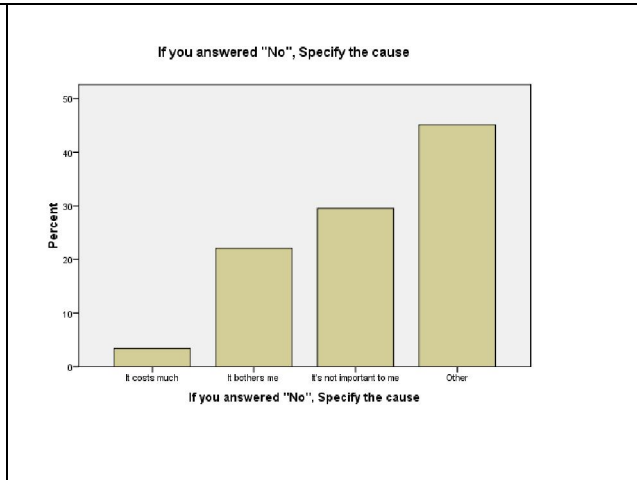


Figure 4 The reasons why not to have a PAP smear

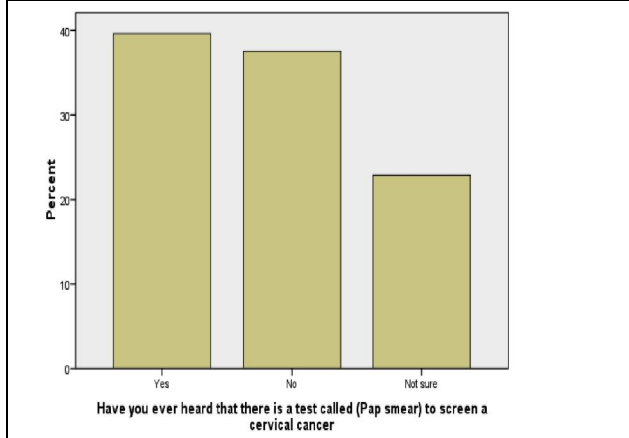


Figure 5 Number of women who have heard about PAP smear

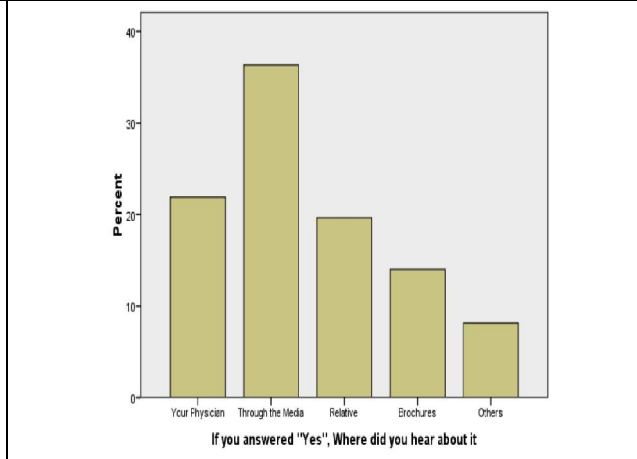


Figure 6 Sources of knowledge about PAP Smear

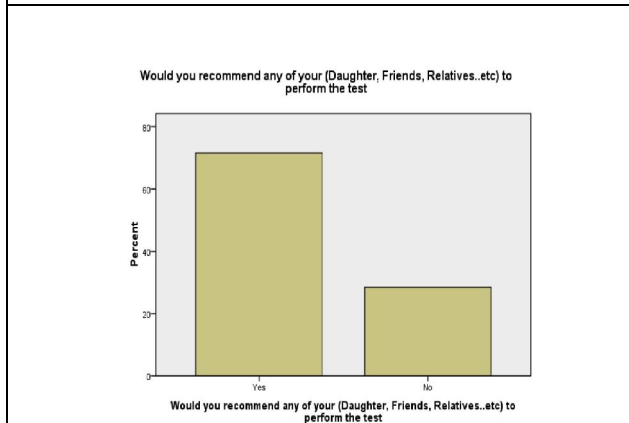


Figure 7 Number of women who would recommend the test to others

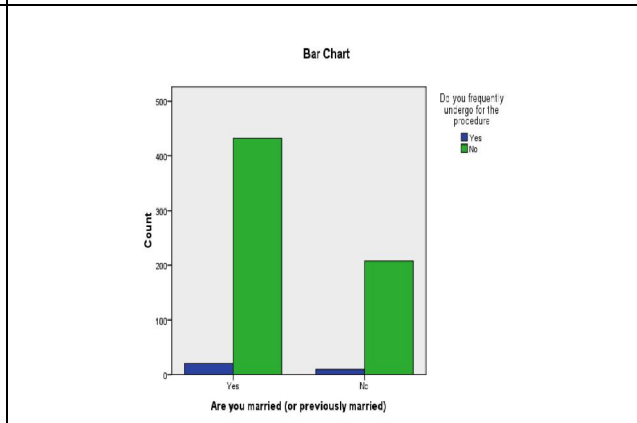
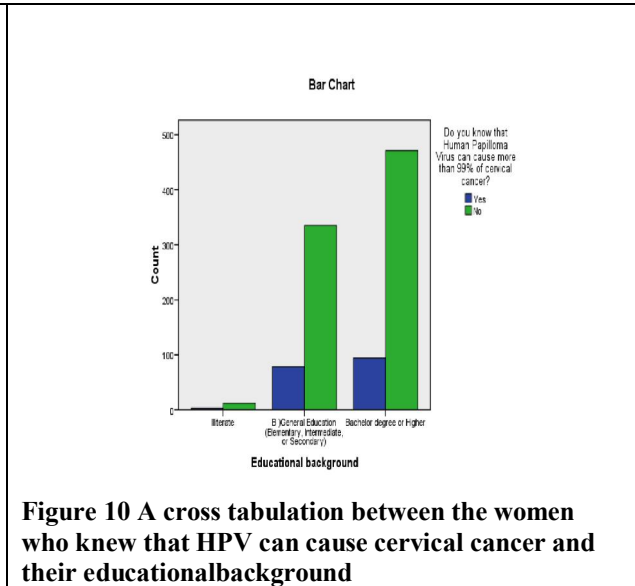
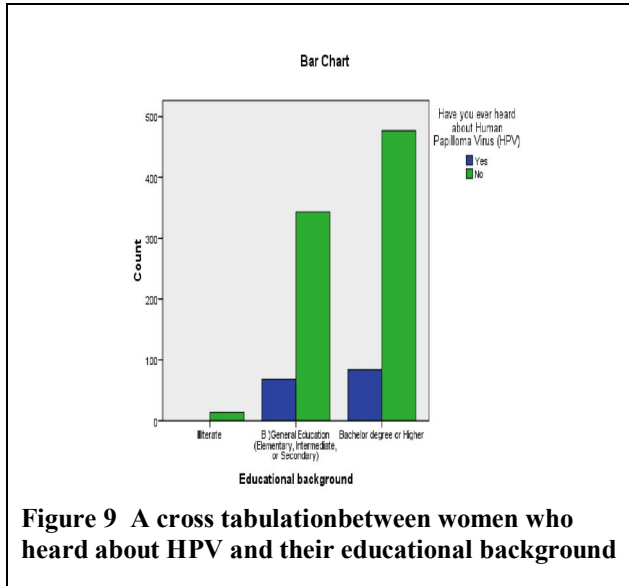


Figure 8 A cross tabulation between women who undergo a pap test and their social status



4. Discussion:

In this study, the knowledge of Pap smear and cervical cancer, as well as the attitudes towards cervical cancer screening, and reasons for not having cervical screening were identified. Our findings concurred with other studies; that women's knowledge and beliefs influenced their screening behavior. The study found that most of women don't know that HPV causes about 99 % of cervical cancer, but knew about Pap smear and its benefits in the prevention and early detection of cervical cancer. Most of women were found not performing it periodically; however, they recommended others to perform it.

Ideströmet *al.* published in 2002 some data about the screening program and Pap smear in Swedish region^[9], where a screening program has been in existence since 1970. Comparing our study to Idestrom's study; there was a significant difference between the history of previous Pap smear testing among the population of our study (7.7%) and that among the women of the Swedish region (95%). This difference could be attributed to the early existence (since 1970) of the PAP testing there compared to that in the Saudi society. The Knowledge of PAP smear testing among our population was also low compared to that among the women of Swedish region.

Another study was conducted by Saitet *al.* in Jeddah- KSA^[10]. A comparable knowledge revealing (1%) difference between the Knowledge about HPV among the population of our study and that of the study conducted in Jeddah-KSA in 2008. A significant difference was found in the Knowledge of PAP smear testing between our population (39.6%) and that of the study conducted in Jeddah (67.6%). The distribution of our population is covering many

cities and even many villages in the western region of KSA compared to the study conducted in Jeddah-KSA, which may contributed to this difference in the Knowledge of PAP smear testing between the two populations. There was also a significant different between the two populations in the history of previous Pap smear which could be due to the same reasons mentioned. In both studies; lack of awareness about PAP smear testing was the major identified reason for not doing Pap smear in the past. In our study we did assess the impact of the educational level on and knowledge about HPV and it is relation to cervical cancer. There was no statistical significance in the difference between different educational levels, however no other studies are available to compare it with. (Tables1&2). The physician's contribution in educating the patients and promoting the screening was unexpectedly low and only a quarter of our patients heard about it through their doctors while the majority through the media. This reflects the need to re-emphasize the importance of our role as medical practitioners in educating the patients.

Conclusion:

Comparing the results of this study with other national or international studies we found some statistical consistencies and variations due to different reasons. More efforts are needed through medical, educational and social fields to send the message of the importance of Pap smear testing, and its benefits in the prevention and early detection of cervical cancer. Campaigns may help to attract people to learn a lot about how Pap smear is easy, simple, rapid, painless and protective against cervical cancer.

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