

ORIGINAL ARTICLE

AWARENESS AND ACCEPTANCE AMONG MALAYSIAN WOMEN ON VACCINATION AGAINST CERVICAL CANCER.

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Abstract

Human papilloma virus is main cause of cervical cancer. In Malaysia cervical cancer is the third main killer of women after malignancies of the breast and colon. The national vaccination programme against HPV infection was introduced in 2009. For this programme to be successful, awareness among the general population is very important. This study was undertaken to study the level of awareness and acceptance among Malaysian women with different socio-demographic and educational back ground. The findings showed awareness level of 83 percent and acceptance level of only 40.5 percent. The main cause for this disparity is the cost of the available vaccines. This is substantiated by high vaccination level among secondary school students who are vaccinated for free.

Keywords: *HPV vaccine, cervical cancer*

Introduction

Cervical cancer is the second most common cancer among women according to World Health Organization¹. WHO reported nearly 500,000 new cases of cervical cancer alone in 2002. Cervical cancer is the third largest killer of women, after cancer of the breast and cancer of colon in Malaysia². A total of 1074 cases of cervical cancer were registered with National Cancer Registry (NCR) in 2006, with an overall age standardized incidence of 12.2 per 100,000 population³. In the last 35 to 40 years the discovery of the link between HPV as a causative factor of cervical cancer in women has been one of the major breakthroughs in the field of medicine. This led to the world-wide epidemiological studies to understand the cause of this cancer, which paved the path to the discovery of prophylactic vaccine against this disease. The development and introduction of preventive vaccine against HPV in cervical cancer in 2006 is a breakthrough and many countries in the world began to introduce it as a part of their vaccination programme.

In United States and many developed countries HPV vaccination is recommended for girls between the ages of 9 and 12 with subsequent administration of booster doses. Awareness and acceptance studies show that acceptance is related to economic factors⁴ as well as ethnicity. Education level also influences the acceptance level^{5,6}.

In Malaysia, similar policy has been advocated since 2009 through the introduction of free vaccination for girls at the ages of 11 and 12 years in school.

For successful implementation of this preventive programme, awareness about the vaccine is essential not only by the general population but health care personnel should also be knowledgeable about HPV vaccines and its adequacy to be able to promote the prevention programme.

Malaysia is a multiethnic, multi religious heterogeneous population with their own beliefs and practices. This study is to identify the

awareness of the existence of HPV vaccination and the level of acceptance among these varied population of women between the ages of 16 to 26 and the factors influencing the acceptance in an urban population in Malaysia.

Materials and Methods

Cross sectional study among young adult women in an urban setting (Kuala Lumpur).

A random sample of women between 12 to 45 years of age (reproductive age group), who were willing to participate in this study from various socio demographic categories in an urban setting in Malaysia was included. The sample size was calculated using OpenEpi online calculator as 400 with a 95% confidence level with an assumed awareness level of 50% and a precision of 5%.

The information was extracted from a self-administered questionnaire with the following socio demographic variables: age, religion, level and field of education, socio-economic status and marital status. The questionnaire also enquires about the awareness and detailed knowledge of Human papilloma virus, HPV vaccines their availability and acceptance by the respondents. The results were analyzed using proportions and chi-square test using SPSS software

Differences in acceptance among different ethnic groups is noted in different studies^{5,6} Our study also noted the Muslim population (predominantly Malays) showed a lower acceptance level of about 29 percent. This may be due to religious and cultural beliefs.

Discussion

The result of this study shows that about 40% of women in the reproductive age group accept HPV vaccination (Fig.1) The acceptance rate among young ladies below 16 years of age is about 90 percent. This may be due to the policy of providing free vaccination for that age group, who are still in school. Vaccination rate is only about 12 percent among the sexually active age of 16 to

26. This rate of acceptance varies in different studies³.

In the education parameters, though the awareness of HPV is not significantly different between secondary and tertiary educated, results of 9.3 percent of acceptance among women with tertiary education in comparison with secondary school students of 66.5 per cent is rather surprising. This is in contrast to a study in Sweden where the acceptance rate is high despite low awareness⁴

Low acceptance levels among people with tertiary education and also medical students is rather surprising as the awareness of HPV vaccine and its role in cervical cancer is high among this group (**Table 1**) This study did not identify the cause for this low acceptance rate in this group but cost could still be a cause.

Differences in acceptance among different ethnic groups has been reported by different studies^{5, 6} and our study also observed that the acceptance level among Malay and Christian population was low i.e. 29% and 28% respectively, which might be due to religious and cultural beliefs.

Acceptance of vaccine in lower income groups is low and finding seem to correlate with other

studies^{5, 7}. Many respondents stated cost as the main factor for non-acceptance and this may be the reason in most studies.

Conclusion

This study is done in a small urban educated population. of 400 in Malaysia. Vaccines were made available in the country since 2009. Two vaccines that are available are Gardasil and Cervarix. In this study population, only about 40.5% have been vaccinated though the level of awareness among this population is high (n=332 or 83%). The vaccination is administered free to secondary school children and hence the high rate of acceptance of 66.5 percent among secondary school students. The cost of vaccination is a significant reason for low acceptance among women.

Though population in all parts of the world are varied and distinct with socio demographic differences, the findings in our study does correlate with many findings from various studies. A larger population study of both rural and urban setting may be very helpful to assist in action to be taken by the authorities concerned, to increase the acceptability rate.

RESULTS

Table 1: Socio-demographic distribution of 400 respondents and incidence of awareness and acceptance of HPV vaccination.

		Frequency of respondents (A) n=400	Awareness of HPV vaccine (B) n=332	Acceptance of HPV vaccine (C) n=162	Percentage of respondents accepting HPV vaccine (C / A) n=40.5
Age	<16	149	138	134	89.9
	16 - 26	222	180	27	12.1
	>26	29	14	1	3.4
Marital Status	Married	44	25	4	9
	Unmarried	356	307	158	44.4
Education level	Secondary	218	191	145	66.5
	Tertiary	182	141	17	9.3
Field of education	Medical	117	115	15	12.8
	Non-medical	283	217	147	51.9
Household income	<RM2000	86	67	20	23.3
	2000 - 5000	203	161	93	45.8
	>5000	111	104	49	44.1
Religion of respondents	Muslims	169	144	49	29
	Buddhists	78	65	41	52.6
	Hindus	80	68	49	61.3
	Christians	38	29	11	28.9
	Sikhs	32	25	11	34.3
	Others	3	1	1	33.3

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