

# Knowledge and Attitude of Women Towards Pap Smear Test and Human Papilloma Virus Vaccine

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## ABSTRACT

**Objective** To assess the knowledge and attitude of women towards Pap smear test and Human Papilloma Virus (HPV) vaccine.

**Study design** Cross sectional survey.

**Place & Duration of study** Department of Obstetrics & Gynaecology at Creek General Hospital, United Medical and Dental College Karachi, from August 2016 to July 2017

**Methodology** A total of 300 women aged 18 year to 60 year, were selected from outdoor department. After informed consent a questionnaire was administered. Descriptive statistics were used to present data.

**Results** Of the total study participants, 200 (66.6 %) had only primary education. Most of the women were employed (n=250 - 83.3%) and 245 (81.66 %) married. Main source of information given to them about Pap smear was by a doctors (n= 280 - 93.3 %), followed by nurses (n=15 - 5%). Half of the women believed that the Pap smear was a screening test for detecting cancer of cervix. Regarding the HPV vaccine, only 1.6% (n=5) had heard about it. About 33% (n=100) participants thought that Pap smear was done as a routine gynaecological procedure. Nearly 33.3 % (n= 100) women were comfortable with the test procedure.

**Conclusions** Study participants had insufficient knowledge about cervical cancer. Most of them did not know that it could be prevented by HPV vaccine and usefulness of Pap smear as a screening test.

**Key words** Pap smear, Human Papilloma virus, Cervical cancer, HPV vaccine.

## INTRODUCTION:

Worldwide the cervical cancer is the leading gynaecologic malignancy with significant morbidity and mortality. More than 500,000 women are diagnosed with cervical cancer every year and this results in death of about 274,000 women. It is the second common cause of death in women.<sup>1</sup> In developed world up to 75% of women presents in early stages of cervical cancer, while reverse is seen

in developing countries, where 75% of women presents with advanced stages of disease.<sup>2</sup>

Human papilloma virus is a known cause of cervical cancer. Sexual contact is most commonest route of transmission of this virus worldwide, and it infects 50% to 80% of sexually active women at least once in their lifetime. Certain strains of human papilloma virus are involved in the pathogenesis of cervical cancer. HPV infects the epithelial cells of the cervix uteri and can result in precancerous lesions and invasive cancer.<sup>3</sup> Over 120 different HPV types are identified and at least 38 of these primarily infect the genitalia. Four high-risk types (HPV-16, -18, -31 and 45) are responsible for 80% of invasive cervical cancers around the world.<sup>4</sup>

HPV infection is common in women with early sexual activity (before the age of 25 year). Usually

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this infection resolves without clinical consequence. However it may persists in 10% of cases and progress to a higher grade and invasive cancer. Cervical intraepithelial neoplasia (CIN) can lead to invasive cancer in an immune competent woman within 10 to 20years.<sup>5</sup> Fortunately cervical cancer has a long premalignant period that gives the grace time to screen and treat before it gets invasive in nature.<sup>6</sup>

In developed countries where intensive cervical cancer screening programs run like Pap smear testing, the incidence of this malignancy and its related mortality is reduced by 70-80%.<sup>7</sup> This cytology based office screening test can identify pre-invasive as well as invasive disease / lesions at early stages of the clinical course, during which they can be prevented and managed effectively. For that reason, Pap smear is universally recommended for all the sexually active women.<sup>8</sup> It is the most reliable and effective screening method for cervical cancer.<sup>9</sup>

In Pakistan, the disease burden and severity is largely unknown. Available resources are inadequate to cater for this disease. There is limited information available in the regional centers about this cancer.<sup>1</sup> Findings from urban setting in Pakistan showed that cervical cancer was responsible for 3.6% of cancer related mortality.<sup>10</sup> Increased awareness of the magnitude and possible warning signs of this cancer among general public, is a necessity. Active participation of the target population is required for success of the screening programme . Therefore,

it is important to assess the women's awareness regarding this critical issue and to know reasons for women's nonparticipation in the screening programme. This study was conducted to ascertain the knowledge and attitude towards Pap smear and HPV vaccine in the population attending gynaecology clinic at a community based hospital in Karachi .

#### METHODOLOGY:

A cross sectional survey was conducted on women who presented to the out-patient department of the Creek General Hospital Karachi, from August 2016 to July 2017. Women aged between 18-60 year, were included. Majority of women belonged to low socioeconomic status. Women with no formal education (illiterate) and those who refused to consent, were excluded. After informed consent a self-administered questionnaire was given to assess the knowledge and attitude towards Pap smear and HPV vaccine.

The questionnaire was developed as per objectives of the study, based on literature review and consisted of four sections: Socio-demographic characteristics, knowledge about pap smear, knowledge about reason for which Pap smear was done, attitude towards Pap smear and HPV vaccine.

#### RESULTS:

A total of 300 women were included in this study. Most of the women were from the low socioeconomic status. Nearly 66.6 % (n = 200) women had primary education. Majority of the women were working at

**Table I: Socio-demographic Characteristics**

	Number (n)	Percentage (%)
<b>EDUCATION:</b>		
Primary	200	66.6
Secondary	100	33.3
<b>OCCUPATION:</b>		
House Wife	50	16.6
Working Women	250	83.3
<b>MARITAL STATUS</b>		
Married	245	81.66
Un-married	30	10
Divorced	10	3.3
Widow	15	5
<b>RELIGION</b>		
Muslim	220	73
Non-Muslim	80	26.6

Question	Number (n)	Percentage (%)
1. How do you know about pap smear test?		
A: Doctor	280	93.3
B: Nurse	15	5
C: Others	5	1.6
2. Knows that Pap smear is a test done to screen the cervical cancer	150	50
3. Knows when should Pap smear testing start	100	33.3
4. Knows the interval between two pap smears	10	3.3
5. Knows when to stop pap smears	180	60
6. Knows about HPV vaccine	5	1.6

Question	Number (n)	Percentage (%)
Routine gynaecological examination	100	33.3
Gynaecology problems	150	50
Vaginal discharge	80	26.6
Menstrual problem	45	15
Post-menopausal bleeding	20	6.6
Post-coital bleeding	5	1.6
Self	4	1.3
During Antenatal Period	1	0.3

different places (83.3% - n=250 ). Of the total study participants 81.66% (n = 245) were married. Two hundred twenty (73%) were Muslims (table I).

Most of the women received information about Pap smear test from doctors (n = 280 - 93.3%). Half of the women (n =150) believed that the Pap smear is a test to detect cervical cancer and 33.3% (n=100) knew that women should have Pap smears from the onset of their sexual activity. About 60% (n= 180) knew when to stop getting Pap smears done. Only 3.3% (n= 10) believed that they should have a Pap smear at least every three years (table II). Regarding the HPV vaccine, only 1.6% (n=5) had heard about the vaccine for prevention of cervical cancer. Nearly 33 % (n=100) participants thought that Pap smear is done as a routine gynaecological procedure, 50% considered that smear was taken for some gynaecological problems like vaginal discharge etc (table III). Regarding attitude towards pap smear, 33.3% (n=100) of women were comfortable with the test, but 3.5% (n=10) were hesitating and 6.6% (n=20) refused for the test, while 43.3% (n= 130) women thought that the Pap smear procedure was

painful.

**DISCUSSION:**

Cervical cancer is a preventable gynaecological malignancy because it has long pre-invasion period and available cytology screening programs can detect it at early stage. The Pap smear test is the most commonly used test for screening of cervical neoplasia.<sup>11</sup> Cervical cancer is highly curable when diagnosed early,<sup>12</sup> However despite being preventable and curable, most women in developing countries like Pakistan, present with advanced stages, most probably due to lack of knowledge of the intensive screening programs and absence of nationwide campaigns to vaccinate females against HPV. This was is reflected in this study as well. The result of this study showed that most of the participants had little information about Pap smear, its role in early diagnosis of cervical cancer and HPV vaccine for prevention of cervical cancer. Low levels of knowledge is also reported in number of studies around the globe.<sup>11-14</sup>

This study revealed that women did not know about the indications of cervical cancer screening, when to start and stop screening, and how frequently Pap smear should be done. Similar findings were observed in a study conducted in Saudi Arabia.<sup>7</sup> Many participants believed that Pap smear is performed only on women who are symptomatic like having abnormal vaginal discharge, menstrual problems, etc. Such misconceptions require public education programmes.

Only 1.6% of the participants were familiar about HPV vaccination for protection from cervical cancer. In studies conducted in Korea and Bahrain same were the observation.<sup>15,16</sup> Regarding attitude towards Pap smear only 33% were comfortable with the test, while rest hesitated or refused for the test and believed that it was painful. In a study conducted in Uganda among medical workers only less than 40% knew risk factors for cervical cancer, and screening interval.<sup>17</sup> Healthcare providers such as general practitioners and gynaecologists, need to do their part in promoting cervical cancer screening. They should educate the women about cervical cancer risk factors, prevention and early detection to improve acceptance of screening programme.

#### CONCLUSIONS:

Inadequate knowledge about the screening by Pap smear for cervical cancer and its prevention by HPV vaccine was noted in the study population.

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Saba Pario: Literature review, data analysis and report writing.

Shahnaz Hassan Siddiqui: Literature review, analysis of data & final approval.

Conflict of Interest:

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