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## RESEARCH COMMUNICATION

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# Perceptions and Practices of a Pakistani Population Regarding Cervical Cancer Screening

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### Abstract

Cervical cancer is among the three leading causes of cancers among females worldwide. It is also among the three most common causes of cancer deaths among females, about 80% of which occur in less developed countries. The present cross-sectional knowledge, attitude and practice survey was carried out to determine the perceptions and practices of a Pakistani female population regarding cervical cancer screening. Through convenient sampling, 192 subjects were recruited and administered a pre-tested and structured questionnaire. About 5% of subjects knew that screening was available for cervical cancer. Only 2.6% of the sample had ever received a Pap test. The most common reason cited for not having received a Pap test was the lack of information. In conclusion, the Pakistani population studied here demonstrated a very low coverage of the Pap test and a poor knowledge regarding its utility.

**Key Words:** Perceptions - cervical cancer - screening - Pakistan

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### Introduction

Cervical cancer is one of the three most common malignancies among females worldwide (Ferlay et al., 2004). Its contribution to cancer burden is significant across all cultures and economies. Cervical cancer also accounts for over 270,000 deaths worldwide, an overwhelming majority of which occur in the less developed regions (Ferlay et al., 2004).

The reason for higher mortality of cervical cancer in developing countries is the tremendous health disparity leading to a state in which developing countries spend only 5% of the resources spent on cancer globally (NCCP, 2002). It is of note, that the major bulk of worldwide expenditure on cancers is spent on screening tests and treatment.

Pakistan, like other developing countries, faces a double burden of diseases. Cervical cancer is the fourth most common cancer among Pakistani females with an age standardized incidence rate (ASIR) of 6.5 per 100,000 (Ferley et al., 2004). Although the incidence of cervical cancer in Pakistan is lower than that in various western countries, yet the mortality is higher. This higher rate of mortality is attributed to the late presentation of cervical cancers in Pakistan (Badar et al., 2007).

The Pap test is capable of detecting cervical cancer at precancerous and early stages and is used widely in developed countries wherein it has decreased both the incidence and mortality of cervical cancer (Canfell et al.,

2006; Hewitt et al., 2004; NCCP, 2002; Nygard et al., 2002). In less developed countries, however, it has had little impact due to an inadequate coverage (a low proportion of women who have a smear).

With this background, this study was carried out to determine the perceptions and practices of a Pakistani female population regarding cervical cancer screening.

### Materials and Methods

This cross-sectional knowledge, attitudes and practices (KAP) survey was conducted during May 2007. The subjects were recruited through convenient sampling method from amongst the adult (>18 years) female patients admitted at Fatima Memorial Hospital, a tertiary care health facility in Lahore, Pakistan. Those with a history of cervical cancer, hysterectomy or those who were admitted for a gynecological issue were excluded. An informed verbal consent was obtained from all the subjects before accrual in the study. Ethical approval for the study was received from the Review Committee of the Center for health research, Lahore. The study was conducted in compliance with 'Ethical principles for medical research involving human subjects' of Helsinki Declaration (WMA, 2004).

The information was collected on a pre-tested structured questionnaire. The content validity of questionnaire items was examined by clinical experts and peer review. Besides recording the demographic

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**Table 1. Demographic Features of the Pakistani Female Population Surveyed**

	%	(n)
Marital Status		
Married	80.7%	(155)
Single	19.3%	(37)
Place of Residence		
Urban	64.6%	(124)
Rural	35.4%	(68)
Education		
Nil	44.3%	(85)
School	47.4%	(91)
University	8.3%	(16)
Occupation		
Housewife	80.2%	(154)
Working	15.6%	(30)
Student	4.2%	(8)
Monthly income (Rs.)		
<5,000	59.4%	(114)
5,000-9,999	26.0%	(50)
10,000-14,999	9.9%	(19)
>15,000	4.7%	(9)

information, the questionnaire evaluated the knowledge, attitudes and practices of participants regarding the screening of cervical cancer.

Data was entered and analyzed using Statistical Package for Social Sciences 13.0 (SPSS 13.0). Descriptive statistics of socio-demographic information, knowledge, attitudes and practices of participants regarding screening of cervical cancer were determined and reported in the forms of mean, standard deviation, proportions and percentages.

## Results

One hundred and ninety-two subjects (all females) were recruited in the study. The mean age of the sample was 42 years (SD:  $\pm 14$  years). About 81% (155) were married and 80% were housewives. Forty-four percent (85) participants had no formal education. About 65% (124) resided in urban areas. More than 95% sample had a monthly income of less than 15,000 Pakistan rupees

**Table 2. Attitudes of the Pakistani Female Population Surveyed Regarding Cervical Cancer Screening**

	%	(n)
What is the reason for not having had a Pap test?		
Never heard about it	50.5%	(97)
No need to get it	37.5%	(72)
Never asked by doctor	3.6%	(7)
Facility not available	3.1%	(6)
Do you need more information about cervical cancer screening?		
Very much	28.6%	(55)
Much	42.2%	(81)
Not much	19.3%	(37)
Not at all	8.9%	(17)
Are you comfortable with Pap test?		
Very much	9.4%	(18)
Much	35.4%	(68)
Not much	35.4%	(68)
Not at all	17.2%	(33)

(\$250). None had history of any malignancy. The demographic information is summarized in Table 1.

About 85% (163) of the participants agreed that early detection of cancer improves survival. Thirty-six percent (69) of the sample had heard about cervical cancer. About 5% (10) subjects knew that screening is available for cervical cancer. Only 2.6% (5) had ever had a pap smear. The most common reason cited for not having had a pap test, was lack of information about it (Table 2). More than 70% subjects showed keen interest in getting further information regarding cervical cancer screening. Some 54% believed that the Pap test would be uncomfortable. About 95% (182) revealed that they have never been suggested by a doctor to have a Pap test.

## Discussion

Subjects for this study were recruited from Fatima Memorial hospital in Lahore. Demographic features of the study sample typically represent the population of a low income country with majority of population having a low monthly income and literacy.

Cervical cancer is among the three most common causes of cancer deaths globally. About 85% of the cervical cancer deaths worldwide occur in less developed countries, where it is the leading cause of cancer deaths (Ferley et al., 2004). The age standardized mortality rates (ASMR) for cervical cancers in less developed countries is 11.2 per 100,000 as compared to the ASMR of 4.0 per 100,000 in more developed countries (Ferley et al., 2004).

The higher mortality of cervical cancer in the less developed world can be attributed to the late presentation of cancers in these countries. In Pakistan, more than 70% malignancies present in advanced stages (Bhurgri, 2004). In a recent study from Lahore, less than 1% of cervical neoplasia could be detected as pre-cancerous (stage 0). Similarly, only 11.7% of the cervical cancers could be detected at Stage 1 (Badar et al., 2007). This late presentation of the disease leads to a grave prognosis resulting in a higher mortality.

Cervical cancer screening through Pap test is extremely effective in detecting the cervical neoplasia at a very early stage. In our study sample, however, only 2.6% subjects had ever received a pap test. This is in contrast to the data reported from several developed countries (Canfell et al., 2006; Hewitt et al., 2004; Nygard et al., 2002). According to the National Health Survey, more than 80% of adult females in the United States had a pap smear done during the past 3 years (Hewitt et al., 2004). Implementing a coordinated screening intervention of such magnitude, however, has seemed far from practical in majority of developing nations, including Pakistan.

One of the important reasons for the low Pap test coverage in Pakistan is the lack of awareness about cancer screening. Though 85% of the participants in our study recognized that early detection of cancers can improve survival, very few knew that the screening was available for cervical cancer. The most common reasons cited for not having received a Pap test were either lack of information about it, or about its effectiveness, rather than financial constraints or availability as is often perceived.

In a recent study from Karachi, only 14% subjects knew that early detection of cancers is possible through screening (Mazahir et al., 2008). In the same study, only 7% subjects reported to have been informed about the cancer screening by a doctor - a finding consistent with our results.

The majority of the sample in our study showed keen interest in obtaining more information regarding cervical cancer. This positive attitude is an encouraging trend in the population. That, however, goes only part of the way towards increasing the use of cervical cancer screening. Several studies in developed countries have concluded that even in the higher socio-economic strata of South Asian women, the rates of Pap test receipt remain low due to lack of awareness (Chauhadry et al., 2003; Gupta et al., 2002; Sutton et al., 2001). Therefore, improving the knowledge of the population regarding cervical cancer screening is one of the most important steps in enhancing the Pap test coverage among Pakistani females. Any coordinated cancer screening effort is unlikely to succeed without a sound knowledge among the target population regarding its goals and efficacy. A number of inexpensive, community based methods have been identified to improve the awareness regarding cervical cancer screening (Greimel et al., 1997; Perkins et al. 2007), which may be employed in Pakistan. Moreover, the physicians need to be proactive in educating their patients about such screening methods.

In conclusion, the Pakistani population studied here demonstrated a very low coverage of the Pap test and a poor knowledge regarding its utility. The lack of information was the most common reason cited for not having received Pap test. Improving the awareness regarding cervical cancer screening is imperative before a coordinated cancer screening program could be implemented in Pakistan.

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