

Knowledge, attitude, and practice regarding cervical cancer among women in Peshawar: a cross-sectional study

Bibi Aliya, Maryam Raza Dar, Narmeen Ayaz, Maryam Shoaib, Sarah Masood

Submitted

July 28, 2019

Accepted

August 20, 2019

Author Information

Dr. Bibi Aliya

Assistant Professor
Department of Community
Medicine, Rehman Medical
College, Peshawar, Khyber
Pakhtunkhwa, Pakistan
(Corresponding Author)
Email: bibi.aliya@rmi.edu.pk

From: Rehman Medical
Institute, Peshawar, Khyber
Pakhtunkhwa, Pakistan

Dr. Maryam Raza Dar
House Officer,

Dr. Narmeen Ayaz
House Officer

Dr. Maryam Shoaib
House Officer

Dr. Sarah Masood
House Officer, North West
General hospital & Research
Center, Peshawar, Khyber
Pakhtunkhwa, Pakistan

Citation: Aliya B, Dar MR,
Ayaz N, Shoaib M, Masood
S. Knowledge, attitude, and
practice regarding cervical
cancer among women in
Peshawar: a cross-sectional
study. J Rehman Med Inst.
2019 Jul-Sep;5(3):3-6.

ABSTRACT

Introduction: Cervical cancer, a global menace, is the most common cancer in females worldwide, and second common cancer in Pakistan. It is preventable by detecting precancerous lesions through various screening tools, which are successful if women are aware of the problem. High female illiteracy rate along with false taboos and beliefs are factors related to increasing incidence of this disease in Pakistan.

Objectives: To assess the knowledge, attitude and practice of women in Peshawar about cervical cancer, and to identify barriers which are the main hindrances in carrying out the screening test and educating women.

Materials & Methods: A cross sectional descriptive study was conducted in Gynecology & Obstetrics department of Hayatabad Medical Complex, Peshawar, from April 2016 to June 2016 on 250 females visiting the department during the study period. Data were collected on a structured questionnaire having 25 closed ended questions by interview after informed consent and assurance of confidentiality. SPSS 16 was used for descriptive data analysis.

Results: Out of 250 females interviewed, only 25.6% knew about cervical cancer. The most common risk factor known was viral infection; only 29.6% had heard about Pap smear test while out of these 14.5% recognized it as a diagnostic measure of cervical cancer. Only 4.4% of respondents had undergone cervical screening test in the last 5 years; 18.1% respondents knew about vaccination but only 0.8% were vaccinated. The most common barriers cited for not having Pap smear test was lack of awareness and not having cervical complaints.

Conclusion: Knowledge, attitude, and practice of cervical cancer and its screening were highly unsatisfactory among female patients coming to a tertiary care public hospital of Peshawar irrespective of their education level. Participants who knew about this deadly disease included those who themselves were diagnosed or their relatives were affected by it. Lack of knowledge about cervical cancer was due to social and cultural barriers.

Keywords: Uterine Cervical Cancer; Papillomaviridae; Papanicolaou Test; Vaccination.

The authors declared no conflict of interest. All authors contributed substantially to the planning of research, data collection, data analysis, and write-up of the article, and agreed to be accountable for all aspects of the work.

INTRODUCTION

Invasive cervical cancer is the second most common cancer and the third leading cause of cancer deaths among women globally. Every year 500,000 cases of cervical cancer are diagnosed, with 270,000 women dying of it throughout the world, causing one death every two minutes; 80% of these deaths occur in developing countries such as Pakistan due to lack of precursor screening.¹ In developed countries like UK and USA, screening has become routine reducing the mortality rate. Opportunistic screening or no screening at all is usual in developing countries; thus patients present in late stages of carcinoma causing high mortality and morbidity.^{2,3}

The primary underlying cause of cervical cancer is Human Papilloma Virus (mainly types 16 and 18). Multiple sexual partners, early marriage and sexual practice, increasing parity, delivery of first baby before the age of 20, use of hormonal contraceptives for 5 years or longer, current or previous sexually transmitted infection, poor practice of personal hygiene, low socioeconomic status and smoking (active and passive) are risk factors for cervical cancer.⁴ It is readily detectable in its initial precancerous stage by screening methods such as visual inspection with Acetic Acid and careHPV, which are not expensive.⁵ These methods are used by resource limited countries but still it remains the second most common cancer in Pakistan. Both primary and secondary prevention strategies are highly effective to prevent cervical cancer. Primary prevention through Human Papilloma Virus (HPV) vaccination and regular screening (Papanicolaou smear) are still out of bounds due to high cost. However, secondary prevention is the need of the hour. Studies from developed countries has shown that well planned, organized cervical cancer screening programs and implementation of health care services to treat the disease at its initial stage can significantly reduce its prevalence, incidence and the consequences, but the main hurdle is multiple social and cultural barriers in accessing basic screening and treatment services.⁶ Twenty women die daily in Pakistan from cervical cancer, making it seventh among countries having highest cervical cancer mortality.⁷

The present study was conducted to determine awareness of cervical cancer in women attending a public tertiary care hospital of Peshawar, Khyber Pakhtunkhwa.

MATERIALS & METHODS

In this cross sectional descriptive study, a convenience sample of 250 female patients coming to Gynecology & Obstetrics department of Hayatabad Medical Complex (HMC), Peshawar, were interviewed using a standardized questionnaire containing 25 closed ended questions after obtaining informed consent. Sample size was calculated as 245 (rounded to 250) by WHO formula for a prevalence of cervical cancer in young sexually active women of 20%.⁸

Questionnaire was designed through literature search; it had 5 parts, the first about sociodemographic data, second about knowledge, third about awareness, fourth about practices of cervical cancer, and the fifth about barriers of cervical screening. SPSS 16 was used for descriptive data analysis.

RESULTS

Of 250 subjects, most (37.6%) were aged 30-35 years followed by ages 41-45 years (18%); 90.8% were married; 53.6% women had 5 or more children. Only 20% were educated; a history of cancer occurring in close relatives was given by 37(14.8%) of women (Table 1).

Table 1: Socio-demographic data of subjects (n=250).

| Socio-Demographic Variables | f | % |
|----------------------------------|-----|------|
| Age in years | | |
| 30-35 | 94 | 37.6 |
| 36-40 | 41 | 16.4 |
| 41-45 | 45 | 18.0 |
| 46-50 | 70 | 28.0 |
| Marital status | | |
| Single | 20 | 08.0 |
| Married | 227 | 90.8 |
| Widow | 03 | 01.8 |
| No of Children | | |
| None | 34 | 13.6 |
| 1-4 | 81 | 22.4 |
| 5 or more | 134 | 53.6 |
| Educated | | |
| Yes | 50 | 20 |
| No | 200 | 80 |
| Level of Education | | |
| No formal education | 30 | 12 |
| Primary education | 22 | 8.8 |
| Secondary education | 12 | 4.8 |
| Higher education | 11 | 4.4 |
| No Response | 174 | 69.6 |
| Cancer in close relations | | |
| Yes | 37 | 14.8 |

Subjects were assessed for their level of knowledge about cervical cancer, as shown in Table 2.

Only 25.6% knew about cervical cancer; these included those diagnosed with cervical cancer or had relatives diagnosed with cervical cancer. Regarding which women could get cervical answer, 29.2% said that any woman could get it, while the rest had no knowledge about women at high risk for cervical cancer. Similarly, only 29.6% women had heard about the Papanicolaou smear, and 14.4% respondents knew the procedure. Regarding vaccination for cervical cancer, only 18.8% women had knowledge about it.

Table 2: Knowledge of subjects about cervical cancer (n=250).

| Knowledge Questions | Yes (%) | No (%) |
|---|---------|--------|
| Do you know about cervical cancer? | 25.6 | 74.4 |
| Do you think any women can acquire cervical cancer? | 29.2 | 70.8 |
| Have you ever heard of Pap smear test? | 29.6 | 70.4 |
| Do you know what a Pap smear test is? | 14.4 | 85.2 |
| Do you know about cervical cancer vaccination? | 18.0 | 81.6 |

When inquired about age at which vaccination should be done against Human Papilloma Virus, 87.6% women gave no response, 6.4% said it is given at birth, 1.2% said it is given at 3 and 6 years of age, 1.6% women said at 9 years of age (which they got right by chance otherwise they did not know about it), and 2.0% said at 12 years of age (Figure 1).

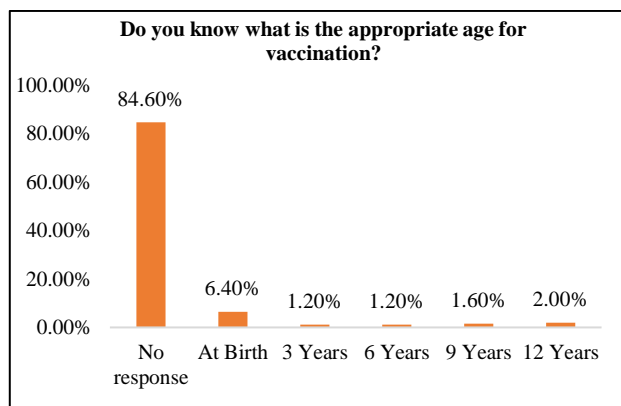


Figure 1: Knowledge of subjects about the appropriate age of vaccination for cervical cancer (n=250).

Table 3 provides the responses of subjects regarding the risk factors for developing cervical cancer.

When asked about risk factors for cervical cancer, the majority of women could not answer at all; the answers given seemed to be guesses or ones they thought were expected from them; 16.8% opted for family history, 12.4% opted for multiple sexual partners, 17.6% were positive about viral infections, 15.6% each thought that smoking and multiparity were risk factors, and 13.2% responded that early age of marriage was a risk factor.

Table 3: Knowledge about risk factors of cervical cancer (n=250).

| Risk Factors | Yes (%) | No (%) | No Response (%) |
|--------------------------|---------|--------|-----------------|
| Family history | 16.8 | 8.4 | 74.8 |
| Multiple sexual partners | 12.4 | 7.2 | 80.4 |
| Viral infections | 17.6 | 6.8 | 75.6 |
| Smoking | 15.6 | 7.2 | 77.2 |
| Multiparty | 15.6 | 7.2 | 77.2 |
| Early Marriage | 13.2 | 8.8 | 78.0 |

Table 4 provides data regarding attitude of subjects; when asked if they take any advice for cervical problems, 83.2% said yes; only 6.0% said they had done Pap smear. Similarly, only 1.6% had ever asked a doctor for vaccination against cervical cancer.

Table 4: Attitude towards cervical cancer (n=250).

| Attitude Questions | Yes (%) | No (%) |
|--|---------|--------|
| Have you taken advice for your cervical problems? | 83.2 | 16.8 |
| Have you ever done a pap smear? | 6.0 | 94.0 |
| Have you ever asked from doctor for cervical cancer vaccination? | 1.6 | 97.6 |

Regarding practice of getting a Pap smear done for cervical cancer, majority of women (95.6%) had never done Pap smear in 5 years while 4.4% had done it once in their life (Figure 2).

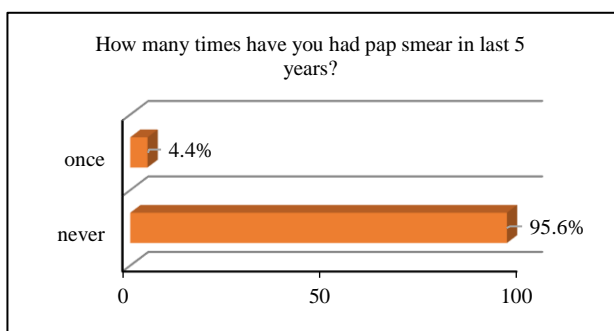


Figure 2: Practice of having a Pap smear done in the last five years (n=250).

There were different barriers reported by women for not screening; 12.8% were of the view that screening was expensive, 14.8% were afraid of carrying out the screening test, according to 9.6% women it was embarrassing, 79.2% were unaware of tests carried out for cervical cancer, only 13.6% were aware that these tests were available in Pakistan, and 44.4% women said they never had any cervical complaints that was why they never did screening (Table 5).

Table 5: Barriers to screening for cervical cancer (n=250).

| Reported barriers to screening | Responses | |
|---|-----------|------|
| | f | % |
| Screening of cervical cancer is expensive | 32 | 12.8 |
| Afraid of carrying out screening | 35 | 14.8 |
| Feeling embarrassment while carrying out this screening | 24 | 09.6 |
| Unaware of these tests | 198 | 79.2 |
| Aware that these tests are available in Pakistan | 34 | 13.6 |
| No cervical complaints, so no need to screen | 111 | 44.4 |

DISCUSSION

The survey for this Knowledge, Attitude and Practice (KAP) study covered a broad age gap between 30-50 years of age with 65% majority closer to 30 and 50 years. Similar studies include one at an Indian hospital covering ages of 15-64 years⁷ and another study conducted in Fatima Memorial Hospital, Lahore with a mean age of 42 ± 14.7 years.⁸ A further study outside the region, in South Africa, targeted university students aged 18-22 years.⁸ This particular study has a more defined focus group but the results still bear weight on the comparisons made in this study. The similar age ranges reflect inquiry directed at a general populace and thus validate comparison.

Moreover, the studies in the Asian subcontinent all yield a high number of responses from married women as well, while the South African study is aimed at college students and yields only 2.3% cases of marriage.⁹ However, most respondents in the South African study report being sexually active so the need for cervical cancer awareness is present. Another key similarity in the Asian reports is the lack of educated respondents. All three studies report the number of uneducated respondents to be above 70%.⁷⁻⁹ Amongst the educated, anywhere between 20-40% of the respondents have completed studies up to secondary school, with rates for university-educated respondents dropping markedly.

Multiparty in our survey response is quite high at upwards of 50% having 5 or more children. Majority of the respondents in India had only a single child, however, and the second and third highest frequency was for three and four children respectively.⁷ The study conducted in Lahore did not look into multiparty when reporting the make-up of respondents.⁷ A final data point missing in all studies except this one is the incidence of cancer in close relations. The information is significant giving the investigation a very plausible cause for awareness of cancer. However, since the report does pertain specifically to cervical cancer, the awareness of cancer can only slightly account for awareness of cervical cancer itself.

Delving into the KAP analysis, when asked whether they had heard of cervical cancer, our survey found only less than a third of respondents reporting ‘yes’. The study at Fatima Memorial Hospital also shows a mere 36% respondents with knowledge of the particular form of cancer.⁸ The study conducted in India, however, ascertains whether knowledge of the Pap smear test exists as opposed to knowledge of cervical cancer. Yet, as the two notions are undeniably linked, the finding that only a third of respondents knew of the Pap smear test must be seen as a lack of knowledge.⁷ A persistent trend is seen in a lack of knowledge of cervical cancer among sexually active university students in South Africa as well. Although a higher incidence of knowledge is obtained, only 42.9% of candidates knew of cancer.⁹

Inadequate knowledge of cervical cancer persists across the survey respondents in all four reports. The results of this study’s surveys also show that only 30% women believe cervical cancer is universally acquirable and that a third, again, have heard of the pap smear test in any way. Less than 15% knew what the Pap smear test actually is, and less than 20% knew of vaccinations for cervical cancer (and almost no one knew of the appropriate vaccination age). Looking at the study at Fatima Memorial Hospital, we see 50% of respondents admitting no knowledge of

the Pap smear test.⁸ As discussed before, knowledge of the test was severely lacking in India as well, and surprisingly, the respondents in South Africa were only marginally more informed about the Pap smear test at 42%.⁴

Knowledge of risk factors is difficult to ascertain given a majority of respondents chose not to answer our survey questions on the matter. Given the few responses, however, the number of people identifying family history, multiple sexual partners, viruses, smoking, multiparty and early marriage as essential risk factors is consistently almost double those who disregard the factors. In South Africa, 15.6% of participants that knew of cancer did not know of the risk factors.⁹ Knowledge of preventability was found lacking, however, with almost 60% not knowing cervical cancer is preventable. The reports in Lahore and India exclude an analysis of risk factor knowledge but an inadequacy in respondent knowledge about cervical cancer as well as the Pap smear test is clear in all reports.

When respondents were asked if they had taken advice for any problems related to the cervix, 83.2% responded 'yes'. However, only 6% had ever taken a Pap smear test (4.4% reporting once within the last five years) and only 1.6% of respondents had explicitly asked a doctor for a cervical cancer vaccination. An extremely small minority, 0.8% of respondents, had been vaccinated for cervical cancer. In comparison, only 2.6% of respondents had taken a gotten a Pap smear done in Lahore.⁸ Survey results from India show a similar lack of respondents (albeit a slightly higher proportion) having taken the test. Though 19.6% reported having the Pap smear test done but only 7.3% had taken it once every 3 years as per recommendations.⁷ To quote the author, "only 18.2% showed adequate attitude." Similar results also persist in South Africa, with just under 10% reporting having taken a Pap smear test.⁹ The survey also reports that only 69% of participants who had taken the test knew of the test results.⁹ The reports do not investigate the number of vaccinations but a lack of adequate testing is clear across the board.

This report also structured a catch-all question pertaining to barriers to screening for respondents. Although the response rate varies, 12.8% found the screening process to be unaffordable,

14.8% and 9.6% agreed to the presence of fear and embarrassment respectively, and 13.6% cited unavailability of tests. A large percentage, 44.4%, identified no cervical complaints as a reason for not getting screened for cervical cancer. A big majority (79.2%) cited a lack of awareness as a barrier to screening.

The study by Imam et al in Lahore also found that a lack of awareness was a key barrier to screening, with just over 50% respondents agreeing with the statement.⁸ In India, 80% of respondents claimed to find screening for cervical cancer unnecessary.⁷ The author's work clearly shows adequate practice never even crossing the 50% mark and in fact stays well below 25% on average.⁷ A similar question on barriers in South Africa revealed that 32.4% of survey participants cited a fear of the procedure; 2.2% cited cultural or religious incompatibility; 14.7% cited bad attitudes on part of doctors/nurses; 15.4% cited no access to the test.⁹ A good number of participants, 26.5%, also reported no health complaints as a reason for not getting screened similar to the findings of this study.⁹ The report also identifies the lack of any key predictor for doing a Pap smear test making it hard to diagnose key lapses in knowledge, attitude and practice indicators.

CONCLUSION

Knowledge and practice of cervical cancer and its screening among female patients coming to a tertiary care public hospital of Peshawar were really poor irrespective of education level. This lack of knowledge about cervical cancer is attributable to social and cultural barriers.

RECOMMENDATION

For successful implementation of cervical screening program in Pakistan, there should be mass awareness through media about cervical cancer and its screening programs; the pivotal role played by health workers should be kept in mind and they should be targeted first so that they should enlighten the community about the availability and need of regular cervical cancer screening. Education system can also play an important role in creating awareness about the risk factors and the screening of cervical cancer to prevent this disease.

REFERENCES

- Mukhtar R, Mehmood R, Parveen S, Hussain M, Arif M. Prevalence of cervical cancer in developing country: Pakistan. *Global J Med Res.* 2015;15(3). Available from: https://globaljournals.org/GJMR_Volume15/3-Prevalence-of-Cervical-Cancer.Pdf.
- Mishra GA, Pimple SA, Shastri SS. An overview of prevention and early detection of cervical cancers. *Indian J Med Paediatr Oncol.* 2011 Jul-Sep; 32(3): 125-32.
- World Health Organization. Cervical cancer screening in developing countries: Report of a WHO consultation. Geneva: WHO. 2002. Available from: https://www.who.int/cancer/media/en/cancer_cervical_37321.pdf.
- Anantharaman VV, Sudharshini S, Chitra A. A cross-sectional study on knowledge, attitude, and practice on cervical cancer and screening among female health care providers of Chennai corporation, 2013. *J Acad Med Sci* 2012;2:124-8.
- Zahedi L, Sizemore E, Malcolm S, Grossniklaus E, Nwosu O. Knowledge, attitudes and practices regarding cervical cancer and screening among Haitian health care workers. *Int J Environ Res Public Health.* 2014 Nov 10;11(11):11541-52.
- Khan GJ, Naeem HS, Khan S, Jamshaid T, Sajid MI, Bashir I, et al. Understanding and responsiveness level about cervical cancer and its avoidance among young women of Pakistan. *Asian Pacific J Cancer Prev.* 2014;15(12):4877-83.
- Singh M, Ranjan R, Das B, Gupta K. Knowledge, attitude and practice of cervical cancer screening in women visiting a tertiary care hospital of Delhi. *Indian J Cancer.* Jul-Sep 2014;51(3):319-323.
- Imam SZ, Rehman F, Zeeshan MM, Maqsood B, Asrar S, Fatima N, et al. Perceptions and practices of a Pakistani population regarding cervical cancer screening. *Asian Pacific J Cancer Prev.* 2008;9(1):42-4.
- Hoque E, Hoque M. Knowledge of and attitude towards cervical cancer among female university students in South Africa. *South Afr J Epidemiol Infect.* 2009;24(1):21-4.