Original Article

Cervical Cancer Awareness and Utilization of Pap Smear Test among Female Health care Providers in a Secondary Care Hospital, Pakistan

Shazia Syed

Associate Professor Obs/Gyn Dept., Aziz Bhatti Shaheed Teaching Hospital; Gujrat; Pakistan.

Correspondence *Shazia Syed*
Associate Professor Obs/Gyn Dept., Aziz Bhatti Shaheed Teaching Hospital; Gujrat; Pakistan
drshazee@hotmail.com

Abstract

Objective:To determine the level of awareness of cervical cancer and utilization of Pap smear screening in a cohort of female health workers, where awareness is expected to be high.

Methods:A descriptive cross-sectional survey was conducted in Sept-Oct 2017, in Aziz Bhatti Shaheed Teaching Hospital (DHQ) Gujrat. A total of 153 female health workers including doctors, nurses, LHV's and Midwives, were interviewed using a specially designed questionnaire. Their knowledge about cervical cancer and Pap smear, along with the practices towards screening was measured. Data analyzed (SPSS Version 21), percentages and frequencies were calculated.

Results:Knowledge of Cervical cancer and Pap smear test was high 92% and 78% respectively, 95% considered cervical cancer a public health problem. However only 34% practiced routine screening and only 9.8 % (7/71) of the eligible candidates had availed themselves ever for the test. Whereas 73% knew risk factors for cervical cancer, knowledge about eligibility and screening interval was 54% and 39% respectively. Common reasons for not taking Pap smear (66%) were: 07% thought it was for senior doctors, Nurses and midwives thought Pap smear was doctors' procedures and they did not know how to do it (39%), 11% never thought about it, doctors in disciplines other than Obs/Gyn (09%) thought this was an activity only for Obs/Gyn.

Conclusion:Despite the adequate knowledge of cervical cancer and its prevention by Pap smear screening, attitudes and practices towards screening are inadequate. Health care providers should improve on opportunistic screening. Nurse's training, with formulation and implementation of a National Screening Policy being imperative.

Key Words;Pap Smear, Cervical Cancer, health workers, cervical screening

Cite this article as:Syed S.A Survey of Cervical Cancer Awareness and Utilization of Pap Smear test Among Female Health Care Providers in a Secondary Care Hospital, Pakistan.J. Soc. Obstet. Gynaecol. Pak. 2018; Vol 8(3):143-147.

Introduction

Cervical cancer is the second commonest cause of cancer death in women, worldwide and the third leading cause of cancer death.[1] Almost 500,000 new cases of cervical cancer and 274,000 deaths are attributed to this cancer yearly.[2,3] However, with an increased use of cervical cancer screening, the incidence of cervical cancer has decreased by more than 50% in the past 3 decades.[4] Countries like Australia and Italy have achieved the lowest incidence and prevalence of morbidity and mortality due to cervical cancer, just by opting National screening programs.[1] However in developing world, burden of disease is still high due to lack of such screening programs, with nearly 80% of all cervical cancer deaths occurring in these countries.[2, 5]

In Pakistan, the exact incidence and prevalence of cervical cancer is not established, because of ignorance in terms of its screening and prevention. Available epidemiological data is inconsistent because of small-scale studies, limited only to registered cases.[6] In one study cervical cancer was reported to be the fifth most common malignancy during 1977-1988, and was

Funding Source: none

Conflict of Interest: none

Received: May 21,2018

Accepted: Sept 19,2018

the ninth most common during 1992-2001.[7] According to World Health Organization (WHO) research, the prevalence of cervical cancer in Pakistan has raised from 0.009% (9/100,000) in 2002 to 0.019% (19.5/100,000) in 2008,[8, 9] whereby nearly 20 women succumbing to cervical cancer daily, making it amongst the top 10 countries having highest female mortality rates.[8]

The mainstay of cervical cancer screening is the *Pap smear test*, introduced by Georgios Papanikolaou in 1940s and endorsed by WHO in 1945.[10] In this test, the cells are exfoliated from the transformation zone of cervix and are examined under microscope for detection of cancerous or precancerous lesions. This may be followed by colposcopic biopsies to diagnose dysplasia. Invasive cervical cancer is considered as a preventable type of cancer because it has a long pre-invasive phase. In pre-cancerous phase early diagnosis and treatment could prevent invasive cervical cancer.[11]

In 2009, American College of Obstetricians and Gynecologists recommended to start cervical cancer screening at age of 21, regardless of sexual activity and repeat at 1-3 yrs interval depending upon results.[12] This recommendation was reaffirmed in 2012 and then in January 2016. [4]

Health care providers are expected to be primarily responsible for the population screening. However multiple studies among healthcare workers[13- 15] have shown that increased awareness may not always result into increased utilization. The objective of this study was to assess in female health workers not only the level of awareness of cervical cancer and its prevention by Pap smear screening but also their practices and attitudes in terms of utilization of the test among general population and themselves.

Methodology

A descriptive cross-sectional survey was conducted in Sept-Oct 2017 in Aziz Bhatti Shaheed Teaching Hospital, Gujrat, which is a Secondary level District teaching hospital. After taking approval from hospital ethical committee, a total of 153 female medical workers (who were in direct clinical contact with women eligible for cervical cancer screening) such as consultants, specialists, medical officers, nurses, LHV's /Mid wives were interviewed using a specially designed questionnaire. Medical workers not in direct clinical contact with female patients, e.g. laboratory workers, pharmacist were excluded. Informed consent was taken from participants to fill in the Questionnaire having coded as well as open-ended questions regarding their knowledge, attitudes and practices towards cervical cancer screening. Data was entered and analyzed through SPSS Version 21. Results were calculated as Percentages and frequencies.

Knowledge was considered good if a participant was knowing eligibility criteria for cervical cancer screening according to WHO guidelines and could tell at least 3 known risk factors like; early sexual debut, multiple sexual partners, multiparity, low socio-economic status, Human Papilloma Viral infection, etc. Utilization of test was assessed in terms of practices and attitude. Practice was assessed as either cervical cancer screening of patients by themselves or referring patients for screening. Attitude referred to, neither screening patients, nor referring them for screening, and never getting screened themselves.

Results

Total participants were 153. Consultants/specialists 9% (n=14), post graduate trainees/medical officers 25% (39), house officers 27%(41), nurses 31%(47) and LHV's/midwives 8% (n=12).

Most of the participants (88%) were 21-50 yrs of age. While 7% were <21 yrs and 5% were >50 yrs. Married women were 46% (n=71) and unmarried were 54% (n-82). Education level was obviously high, 69% having tertiary level, 27% secondary and only 4% with primary education.

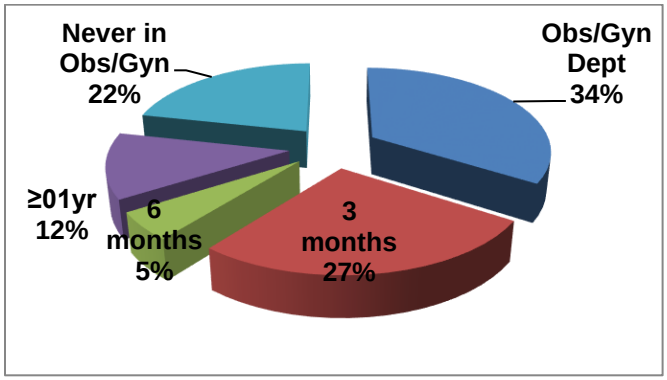

Fig.1- Participant's Experience in Obs/Gynae

Fig.01 shows that 34% (n=52) participants were currently working in obs/Gynae dept while remainders have either worked in past for variable period or never in Obs/Gyn.

Of all participants, 95% regarded cervical cancer as a serious health problem. Most of the participants had good knowledge of cervical cancer and its prevention. However, knowledge of eligibility and interval for screening was moderate (Table-1).

Table- 1. Knowledge about Cervical Cancer and Screening	
Knowledge	**Measured as Good**
Risk factors for cervical cancer	73% (n=112)
Cervical cancer can be treated	92% (n=140)
Cervical cancer can be prevented	90% (n=137)
Of pap smear screening test	78% (n=119)
Why this test is done	57% (n=87)
Eligibility for screening	54% (n=83)
Screening interval	39% (n=60)

Most of the participants were routinely managing female patients, with frequent speculum and vaginal examination. However, practices were not reassuring regarding past history or opportunistic screening (Table-2).

Table-2. Practices regarding Pap-smear Screening	
Practices	**Result**
Routine management of female patients	75% (n=115)
Speculum use during vaginal examination	69% (n=105)
Frequently performing vaginal examination	60% (n=92)
Do not ask patients whether screened	54% (n=83)
Do not take pap smear their self	66% (n=101)
Don't refer patients for screening	65% (n=99)

Common reasons for not doing Pap smear test (66%) were: 07% thought it was for senior doctors, Nurses and midwives thought that Pap smear was doctors' procedures and they did not know how to do it (39%), 11% never thought about it, while doctors in disciplines other than Obs/gynae (09%) thought that this procedure was only to be done by gynaecologists.

Although 46% (n=71) of health care providers were married and eligible for screening. Majority was either working or had worked in Obs/Gynae, but only 7/71 (9.8%) have availed themselves of screening, three during routine checkup and 04 on special recommendation. One test was done in public sector and 6 in private set up. Test was within last 3 yrs in 6 cases. Reasons for not having been screened in remaining 64 are shown in Fig.2.

Lastly, 96% of participants agreed that awareness needs to be propagated.

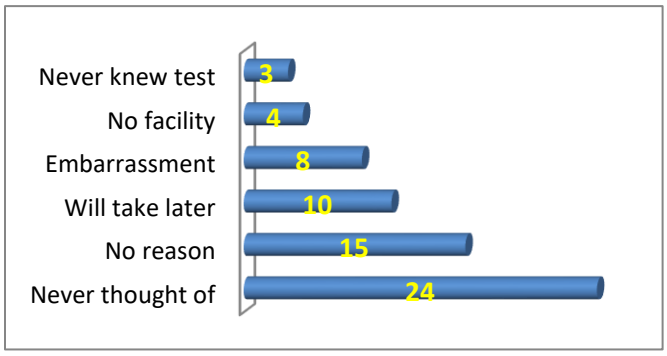

Figure 2. Reasons for not being screened

Discussion

Cervical Cancer Global Crisis Card (CCGCC), has declared Pakistan at 7th number amongst 50 countries having highest cervical cancer mortality.[1] According to WHO, almost half-a-million women will die of this cancer by 2030 and approximately 98% of these mortalities seem to happen in developing countries like Pakistan.[16]Cervical cytology with Pap test is the most effective and gold standard method for screening cervical cancer.[17] Unfortunately utilization of Pap smear test screening in developing countries is only 19% which is very low compared with 63% in developed countries.[18] Moreover, in under developed countries, women at highest risk for cervical cancer are least likely to be screened.[19] Lack of awareness and access to preventive methods being the leading causes.

There is no systematic screening programme in our country and expected practice is the opportunistic screening of eligible women coming to hospital for other reproductive services. Responsibility then falls upon health worker to either screen women themselves or refer them to other unit where screening is being done. In our hospitals, Pap smear screening is exclusively being performed only in Obs/Gynae department and then only by doctors and so women from other departments have to be referred to gynae dept for the test. However, our study reflects that despite adequate knowledge of cervical cancer associated morbidity/mortality and its prevention by Pap smear testing, practices and attitudes of health care providers towards screening are not satisfactory.

Considering knowledge, 95% respondents thought that cervical cancer was a serious health issue and 90% agreed that cervical cancer is preventable. According to 92%, cervical cancer was curable compared to 81% in another study conducted among health providers in Uganda by Mutyaba.[13] In another study more than 65% of the health providers were aware of cervical cancer, and 64% of Pap smear test[14] compared with 78% in our study and 83% in Mutyaba study.[13] Almost 73% enumerated more than one risk factor for cervical cancer compared to only 29% in Mutyaba study. Knowledge of eligibility for the test was also higher (54% Vs.26%). However, knowledge of interval for screening was same (39%) in both studies. Likewise majority of Thai nurses were able to identify correct timing[20] and in Tanzania, 55.5% knew screening to be done either once 35-45yrs of age or once every 3 to 5 years.[21]

Regarding practices, most of our study participants (75%) were managing female patients in routine compared to 86%, and frequently performing speculum (69%) and vaginal examinations (60%) compared with 62% and 12% respectively in Mutyaba study.[13] However, practices were not reassuring regarding opportunistic screening. Here 66% workers were not taking Pap smear in routine or opportunistically compared with 78%[13] and 82%[15] in other studies. Although in latter study all participants were well aware of the test but only 18% were practicing this.

Majority of our study participants were nurses (31%), who constitute main bulk of health workers in any health facility. Consequently commonest reason (39%) for not taking Pap smears in this study was also mainly by Nurses and midwives who considered Pap smear screening only a doctors' procedures and they did not know how to do it, while in Dim's study[15] majority (32%) of those who never screened for cervical cancer had no reason. In Urasa study the commonest reason (54.7%) was, not knowing about the facility to go for the test.[21]

Departments (other than Gynaecology), not practicing screening test could not justify their reluctance to get screened themselves or to refer women for the test despite the availability of this free service in hospital gynae department almost daily. Unfortunately 66% of total participants (including both working within or outside gynaecology) were neither doing this test nor were referring for it (65%). This figure was 78% in Mutyaba study.[13]

In our society, ethical and religious norms do not allow for any vaginal procedure in unmarried virgins, leaving us with 46% (n=71) of health care providers who were married and so eligible for the screening. The health providers, who should be offering opportunistic screening to women coming to them, are not getting screening of themselves even. Majority of them were either working or had worked in Obs/Gynae, but only 7/71 (9.8%) have availed themselves for screening. The level of utilization of Pap smear test among female healthcare workers was comparatively higher in other studies from Uganda (19%),[13] South Eastern Nigeria (14.1%),[14] and Tanzania (15%).[21] In another Nigerian study 39.8% of the respondents had ever been screened for cervical cancer while only 30.1% had screening in the last three years.[22]

In study group 71% of the respondents (5/7) having a routine medical check-up and screening for cervical cancer were within the age range 41-50 years, this is comparable to figure of 70% within age 31-50 years in Jagun study.[22] The test was done within last 3 yrs in 6 cases (6/7= 86%). In contrast, a study done by Nganwai et al in Thailand showed that 56.4% of the nurses had regular Pap smear screening while 86.5% were planning to have regular test in future.[20]

Understanding the cause of these negative attitudes and practices is imperative and possible interventions should be identified to rectify them. Major reason for not having been screened in our study was that respondents had never thought of being screened (37.5%). Same was the case in Mutyaba study. While in Gharoro study, main reason (89.2%) for not getting screened was that respondents never felt of being at risk of developing this cancer.[14]

Whereas, 96% of our participants agreed that awareness needs to be propagated, surprisingly 59.8% of the respondents in Jagun study [22] did not approve of making cervical cancer screening a condition for social benefits.

Our study reveals data from one secondary care level hospital and therefore these results cannot be generalized to health workers in other health care facilities of the country.

Conclusion

Despite the magnitude of disease in developing countries like ours, preventive measures are not upto the mark. These results reflect towards deficiency of a screening policy given by the ministry of health or the hospital management protocol committee locally. Health promotion and disease prevention policies are imperative.

RECOMMENDATIONS;

Health workers need to be sensitized about cervical cancer and importance of screening. They should improve on opportunistic screening through awareness campaigns and screening programs. The attitude of considering cervical screening only doctor's or gynecologist's domain needs to be checked. Revision of syllabus and training of nurses/ midwives in screening skills will be very beneficial. Health workers in other departments must refer all eligible women coming to them, for screening.

Finally integration of this screening service into already existing national health programs, such as family planning and other reproductive health services, will be an effective approach in an already financially and human resource constrained health system.

References

1. Cervical Cancer Global Crisis Card (CCGCC) 2013 (PDF). Available at; http://www.cervicalcancerfreecoalition.org/wp-content/uploads/Cervical-Cancer-Global-Crisis-Card_2013.pdf (Accessed on 2017-11-14)
2. Cervical cancer, human papillomavirus (HPV), and HPV vaccines: Key points for policy-makers and health professionals. *World Health Organization, 2007*.
3. Daniyal M, Akhtar N, Ahmad S, Fatima U, Akram M, Asif HM. Update knowledge on cervical cancer incidence and prevalence in Asia. Asian Pac J Cancer Prev. 2015; 16: 3617-20.
4. American College of Obstetricians and Gynecologists. Cervical cancer screening and prevention. Practice Bulletin No. 157. *Obstet Gynecol*. 2016; 127(1):1-20.
5. Moosa NY, Khattak N, Alam MI, Sher A, Shah W, Mobashar S, et al. Comparison of cervical cell morphology using two different cytology techniques for early detection of pre-cancerous lesions. Asian Pac J Cancer Prev. 2014; 15: 975-81.
6. Batool SA, Sajjad S, Malik H. Cervical cancer in Pakistan: A review. J Pak Med Assoc 2017;67(7): 1074-77.
7. Jamal S, Moghal S, Mamoon N, Mushtaq S, Luqman M, Anwar M. The pattern of malignant tumors: tumor registry data analysis AFIA, Rawalpindi, Pakistan. J Pak Med Assoc. 2006; 56: 359-62.
8. Kamal R. Pap smear: The Life-Saving Test. The Express Turbine. Nov 17, 2014.
9. Pakistan ranked 7th in cervical cancer deaths. The Nation. Feb 10, 2016. Available at; http://nation.com.pk/10-Feb-2016/pakistan-ranked-7th-in-cervical-cancer-deaths
10. Karjane NW. Pap Smear. Updated: Feb 29, 2016. Available at; https://emedicine.medscape.com/article/1947979-overview. [Accessed 15.11.2017]
11. The American Cancer Society. What are the key statistics about cervical cancer? Available at: http://www.cancer.org/Cancer/CervicalCancer/DetailedGuide/cervicalcancerkey-statistics/2013 .[Accessed 15.11.2017]
12. Saslow D, Solomon D, Lawson HW, Killackey M, Kulasingam SL, Cain J, et al. American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology screening guidelines for the prevention and early detection of cervical cancer. *American Journal of Clinical Pathology 2012; 137(4):* 516-42. doi: 10.1309/ajcptgd94evrsjcg
13. Mutyaba T, Mmiro FA, Weiderpass E. Knowledge, attitudes and practices on cervical cancer screening among the medical workers of Mulago Hospital, Uganda. BMC Med Educ. 2006; 6:13.
14. Gharoro EP, Ikeanyi EN. An appraisal of the level of awareness and utilization of the Pap smear test as a cervical cancer screening test among female health workers in a tertiary health institution. Int J Gynecol Cancer 2006; 16(3): 1063–68.
15. Cyril CD, Esther E, Theresa M, Ngozi RD, Hyginus UE. Improved awareness of Pap smear test may not affect its use in Nigeria: a case study of female medical practitioners in Enugu, southeastern Nigeria. Trans R Soc Trop Med Hyg 2009; 103: 852–54.
16. Cervical Cancer Prevention in Pakistan. JSOGP 2015; 5: 66-8.
17. Khalili AF, Pourmehr HS, Shahnazi M, Yaghoub Si, Nasab PG. Cervical cancer screening in women referred to healthcare centres in Tabriz, Iran.Niger Med J. 2015; 56(1): 28–34. doi: 10.4103/0300-1652.149167
18. Gakidou E, Nordhagen S, Obermeyer Z. Coverage of cervical cancer screening in 57 countries: low average levels and large inequalities. Plos Med 2008; 5(6): 132. doi:10.1371/journal.pmed.
19. Asonganyi E, Vaghasia M, Rodrigues C, Phadtare A, Ford A, Pietrobon R, et al. Factors Affecting Compliance with Clinical Practice Guidelines for Pap Smear Screening among Healthcare Providers in Africa: Systematic Review and Meta-Summary of 2045 Individuals. PLoS ONE 2013;8(9):72712. https://doi.org/10.1371/journal.pone.0072712
20. Nganwai P, Truadpon P, Inpa C, Sangpetngam B, Mekjarasnapa M, Apirakarn M, et al. Knowledge, Attitudes and Practices vis-a-vis Cervical Cancer among Registered Nurses at the Faculty of Medicine, KhonKaen University, Thailand. Asian Pac J Cancer Prev. 2008; 9(1):15–18.
21. Urasa M,Darj E. Knowledge of cervical cancer and screening practices of nurses at a regional hospital in Tanzania. Afr Health Sci. 2011; 11(1): 48–57.
22. Jagun EO, Ekundayo A, Jagun OO. Uptake of cervical screening services among female medical practitioners in Ogun state, South-west Nigeria. Annal of Health Research 2016;2(2):79.