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ASSESSING KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS CERVICAL CANCER AMONG WOMEN IN RAWALPINDI – PAKISTAN

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ABSTRACT

Background – Cervical Cancer is the third most common cancer among females, however the most preventable. It is preventable if appropriate screening and prophylactic strategies are employed. There is abundant evidence exists in literature about the awareness regarding cervical cancer but low in prevention particularly in developing countries like Pakistan. However, the lack of knowledge about prevention resulted in underutilization of preventive strategies.

Purpose – The present study aimed to assess the knowledge, attitudes and practices about cervical cancer among women in Rawalpindi - Pakistan.

Design/ methodology/ approach – Conducted a cross-sectional study on academia (students and faculty) and healthcare professionals (doctors and paramedical staff) of Rawalpindi. Data were collected through predesigned, tested and structured questionnaire. The questionnaire included sections to assess the respondent's knowledge, attitude and practices related to

cervical cancer and its screening. Data analysis was done using descriptive statistics through SPSS.

FINDINGS –

Originality/ value – This study is the first to assess the knowledge, attitude and practice about cervical cancer in Pakistan which contributed to the existing literature.

INTRODUCTION

Cervical cancer is the most public malignancies among females worldwide and contributed to cancer burden which is significant across all cultures and economies (Ertem, 2009). More than 270,000 deaths are recorded worldwide because of cervical cancer and majority of which occurs in less developed regions (Imam, 2008). Hence, cervical cancer is considered the major health problem globally.

It has observed the second most common cancer in females after breast cancer, and one of the most important causes of premature death at reproductive age. According to the World Health Organization (WHO), on an average 152 women are diagnosed with cervical cancer every year, and 55 died every year. Cervical cancer has ranked the 8th most frequent cancer and found in women between 15-44 years of the age (Arbyn, 2011). Another research conducted in Turkey, figured out that cervical cancer is most common type among women aged 20-39 years and remained second leading cause of death after breast cancer (Uysal, 2009).

The history of cervical cancer is known since 1960s as a long-term infection of a particular type of virus named ‘human papilloma virus (HPV)’. It is most common virus of sexually transmitted disease (STD) and its infection is linked to 99% of cervical cancer (Stanley, 2010). With reference to Pakistan, there are 75% of cervical cancer cases caused by HPV high risk types 16 and 18, whereas low risk type HPV of 6 and 11 genotypes are mainly involved in the growth of genital lumps (Jaffer, 2007).

The cervical cancer cases are decreased in developed countries over the past few decades (Adegoke, 2012) and mainly attributed to spread awareness about symptoms, screening and prevention strategies (WHO, 2013). However, public awareness about cervical cancer and available screening is limited in developing countries including Pakistan (Jaffer, 2007). It can be largely preventable through effective screening programs. Screening helps in early detection of cancer and can be treated in a more effective way. Furthermore, it has observed that the cost of late cancer detection and treatment is substantially higher than early detection and treatment (Subramanian, 2010).

Currently there are three types of tests available for cervical cancer screening i.e HPV test, cytology-based Papanicolaou test (Pap test) and unaided visual inspection with acetic acid (VIA). Pap smear test is an effective way of screening cervical cancer (Yaren, 2008). In addition to that, HPV vaccination is also effective to decline the rate of cervical cancer cases (McClung, 2019). According to the research in Saudi Arabia (Manji, 2000), two vaccinations are

approved against HPV in 2010, including quadrivalent vaccine (Gardasil) and bivalent vaccine (Cervix) for females between 11-26 years.

The Global Alliance for Vaccination and Immunization (GAVI) has formalized its commitment in 2011 to assist and support the introduction of HPV Vaccination particularly for low-income countries. In 2013, Mozambique was granted GAVVI support under this initiative for two-year demonstration program to target girls and women (Azuucena Bardaji, 2018).

Lack of knowledge and awareness about cervical cancer risk factors and screening leads to inadequate screening mechanisms for early detection. Political barriers (Nauclear, 2009) and religious beliefs are the main reasons to avoid and hesitant for screening. Women feel more comfortable with female healthcare professional rather than male (Humariya Heena, 2019). The decision to go for screening is highly depends on the involvement of healthcare professional and patients as well. According to the WHO survey in 2008-09, there were only 7.6% women aged 25-49 years in Saudi Arabia who had done with Pap smear test (Channon, 2018), significant change recorded as 38% before the educational intervention in India about cervical cancer presentation and increased to 51% after the intervention (Jayant, 2005).

Despite all of these advances in cervical cancer screening and prevention, it is imperative that all women, including those living in developing countries, take advantage of these benefits. Having good knowledge and awareness will help to prevent the disease burden from increasing. Among the concerns is that most patients with cervical cancer in Saudi Arabia present at an advanced stage, which can result in adverse outcomes (Manji, 2000). Moreover, it has been discovered that late-stage cervical cancer is more expensive to treat than early-stage cancer (Subramanian, 2010).

Cancer can be detected at an early stage when it can be treated more effectively through screening. Lack of knowledge and awareness may contribute to the late presentation of cervical cancer patients in Saudi Arabia, as well as the lack of screening mechanisms for early detection (Manji, 2000). The decision to undergo screening is also highly dependent on the healthcare professionals and the patient involved (Ackerson, 2007).

Thus, there is need to spread awareness about cervical cancer amongst women with particular focus early detection. Therefore, this study is conducted to access the knowledge, attitudes and practices about cervical cancer and screening among women in Rawalpindi - Pakistan.

METHODS:

Study Design and Setting:

This was quantitative study. The research instrument was developed from previously published studies after an in-depth literature review and validation through experts.

Research Instrument and Data Collection:

The questionnaire was comprised of four sections, first with social demographics and next three based on knowledge, practices and symptoms. There were 08 questions about knowledge on risk factors for cervical cancer (Bekele Chaka et al, 2018). The third section was to collect information about attitude related to cervical cancer (Bekele Chaka et al, 2018) with 15 questions, and last section inquired practice and knowledge of cervical cancer symptoms and screening (Humariya Heena et al, 2019) through 08 questions. The survey questionnaire was generated online and distributed among selected participants. The responses of all the questions based on 5-Likert Scale including “strongly disagree” to “strongly agree”. The pilot testing showed the Cronbach’s alpha was >0.70 .

Ethical Considerations

The survey cover sheet explained title, purpose and confidentiality of data while asking consent to fill the questionnaire. Confidentiality of the information was maintained throughout the study by excluding respondents’ personal information.

Sampling and Selection of Participants

The study targeted young girls and women aged 20-50 years old with a total sample size of 400. The study participants were randomly selected from the groups of students, doctors, nurses, and housewives based in Rawalpindi, Pakistan. The convenient sampling technique was used.

Data Analysis:

The data was analysed through Statistical Package for Social Sciences (Version 23) while computing frequency and descriptive statistics related social demographic data. The correlation analysis also applied between knowledge, attitude and practice question with social demographics including, age, marital status, education and social status. A level of p-value 0.05 was considered statistically significant. Also, the Pearson’s correlation was used to analyse independent samples for comparison of awareness among participants.

RESULTS:

Sociodemographic Characteristics:

Online questionnaire was distributed among 400 participants including students, faculty members, medical doctors and paramedical staff at Rawalpindi, Pakistan. In total, 400 questionnaires were distributed, but only 376 were returned, which represents a 94% response rate. Ten questionnaires were dropped due to incompleteness or non-serious responses. As a result, there were only 366 questionnaires to be analysed. The demographics of study respondents are presented in Table 1.

Table 1: Sociodemographic

		F	%
Age	20-25	214	58.5
	26-30	29	7.9
	31-35	65	17.8
	36-40	7	1.9
	41-45	10	2.7
	46-50	37	10.1
	50 and above	4	1.1
Education	Bachelors	244	66.7
	Masters	39	10.7
	Mphil/ MS	77	21.0
	PhD	1	.3
	Others	5	1.4
Social Status	Student	234	63.9
	Faculty	39	10.7
	Doctor	12	3.3
	Nurse	59	16.1
	Housewife	22	6.0
Marital Status	Single	246	67.2
	Married	83	22.7
	Divorced	37	10.1

Table 1 indicated the sociodemographic characteristics of 366 female participants. These demographics were determined as age, education, social and marital status of respondents. The age range was 20-50 years with a mean of 33 years. The result showed 214 (58.5%) respondents were from 20-25, 17.8% from age bracket 31-35 and 10.1% in 45-50 years of age. There were 4 women (1.1%) who were 50 and above shared their views about cervical cancer. There were 244 (66.7%) participants who were in bachelors and 77 (21%) from MPhil/MS level. There were 234 (63.9%) students, 39 (10.7%) faculty, 12 (3.3%) doctors, 59 (16.1%) nurses/ para medical staff and 22 (6.0%) housewives who shared their responses. The marital status of respondents was 246 (67.2%) single, 83 (22.7%) married and 37 (10.1%) divorced.

Participants Knowledge about Cervical Cancer

Knowledge level of the females about cervical cancer and related information is shown in Table 2. Many of the participants were not known about cervical cancer or think it is preventable. Participants' knowledge on risk factors for cervical cancer were assessed through eight measures. There were only 143 (39.1%) participants who strongly agreed that it is 'preventable', 70 (19.1%) agreed and 135 (36.9%) shown their responses as neutral. There were 275 (75.2%) participants who strongly believe that 'having different sexual partners is a risk factor of cervical cancer'. There were 220 (60.2%) participants were considered 'smoking is a risk factor of cervical cancer', however, 105 (38%) participants shown their response as neutral. There were 209 (57.1%)

participants who thought ‘HIV is a risk factor’, whereas 127 (34.7%) neutral about this measure. There were 117 (32%) agreed that ‘oral contraceptive is a risk factor’, 88 (24.0%) disagreed that ‘give birth to many child is a risk factor’, whereas 209 (57.1%) agreed to this measure. There were 209 (57.1%) strongly agreed that ‘HPV is a risk factor’. There were 160 (43.7%) participants who believe to get cervical cancer if someone in family has it suffering from it. Majority of the participants are familiar with the risk factors of cervical cancer (Table 2).

Table 2: Knowledge on Risk Factors for Cervical Cancer

Knowledge on Risk Factors for Cervical Cancer		F	%
1. Is cervical cancer preventable?	Strongly Disagree	9	2.5
	Disagree	9	2.5
	Neutral	135	36.9
	Agreed	70	19.1
	Strongly Agreed	143	39.1
2. Is having many different sexual partners a risk factor?	Strongly Disagree	11	3.0
	Disagree	6	1.6
	Neutral	74	20.2
	Agreed	98	26.8
	Strongly Agreed	177	48.4
3. Is smoking a risk factor for cervical cancer?	Strongly Disagree	5	1.4
	Disagree	36	9.8
	Neutral	105	28.7
	Agreed	80	21.9
	Strongly Agreed	140	38.3
4. Is HIV a risk factor for cervical cancer?	Strongly Disagree	16	4.4
	Disagree	14	3.8
	Neutral	127	34.7
	Agreed	79	21.6
	Strongly Agreed	130	35.5
5. Is oral contraception a risk factor for cervical cancer?	Strongly Disagree	31	8.5
	Disagree	23	6.3
	Neutral	114	31.1
	Agreed	117	32.0
	Strongly Agreed	81	22.1
6. Is giving birth to many babies a risk factor?	Strongly Disagree	12	3.3
	Disagree	88	24.0
	Neutral	57	15.6
	Agreed	108	29.5

	Strongly Agreed	101	27.6
7. Is the human papillomavirus (HPV) a risk factor for cervical cancer?	Strongly Disagree	23	6.3
	Disagree	7	1.9
	Neutral	41	11.2
	Agreed	86	23.5
	Strongly Agreed	209	57.1
8. Are you more likely to get cervical cancer if your family has it?	Strongly Disagree	19	5.2
	Disagree	37	10.1
	Neutral	70	19.1
	Agreed	80	21.9
	Strongly Agreed	160	43.7

Participants Attitudes towards Cervical Cancer

The majority of the participants showed agreement or neutral for all the statements in this section. There were 132 (36.1%) participants agreed on ‘chances of getting cervical cancer in next few years’, 111 (30.3%) get cervical cancer sometime during life, 153 (41.8%) cervical cancer scares, 171 (46.7%) participants would experience with long last problems of cervical cancer, 163 (44.5%) cervical cancer threaten a relationship with husband, 207 (56.6%) ‘would not live than 5 years longer due to cervical cancer, 123 (33.6%) showed neutral to ‘cervical cancer test takes too much time, 105 (28.7%) marked neutral to ‘cervical test is painful’, 137 (37.4%) agreed to give more importance to other problems than go for cervical cancer examination, 116 (31.7%) disagreed to become too old for cervical exam regularly, 117 (32%) showed neutral response on not having any cervical test centre near to their house. There were 88 (24%) have faith that cervical exam will not prevent if development in their destiny, whereas 161 (44%) showed neutral response. There were 218 (59.6%) strongly agreed to conduct cervical examination by female health practitioner, 163 (44.5%) strongly agreed to not go for cervical test if it is paid. Lastly, 134 (36.6%) participants agreed to be ashamed to lie on table for cervical cancer examination and 118 (32.2%) showed neutral to this statement (Table 3).

Table 3: Attitudes related to Cervical Cancer

Participants’ Attitude towards Cervical Cancer		F	%
1. My chances of getting cervical cancer in the next few years are high.	Strongly Disagree	52	14.2
	Disagree	60	16.4
	Neutral	113	30.9
	Agreed	132	36.1
	Strongly Agreed	9	2.5
2. I feel I will get cervical cancer sometime during my life.	Strongly Disagree	82	22.4
	Disagree	84	23.0
	Neutral	85	23.2
	Agreed	111	30.3

	Strongly Agreed	4	1.1
3. The thought of cervical cancer scares me.	Strongly Disagree	19	5.2
	Disagree	6	1.6
	Neutral	62	16.9
	Agreed	153	41.8
	Strongly Agreed	126	34.4
4. Problems I would experience with cervical cancer would last a long time	Strongly Disagree	46	12.6
	Disagree	9	2.5
	Neutral	93	25.4
	Agreed	171	46.7
	Strongly Agreed	47	12.8
5. Cervical cancer would threaten a relationship with my husband.	Strongly Disagree	41	11.2
	Disagree	8	2.2
	Neutral	90	24.6
	Agreed	64	17.5
	Strongly Agreed	163	44.5
6. If I developed cervical cancer, I would not live longer than 5 years.	Strongly Disagree	52	14.2
	Disagree	19	5.2
	Neutral	207	56.6
	Agreed	64	17.5
	Strongly Agreed	24	6.6
7. Having cervical exams takes too much time.	Strongly Disagree	73	19.9
	Disagree	74	20.2
	Neutral	123	33.6
	Agreed	90	24.6
	Strongly Agreed	6	1.6
8. Having a cervical examination is too painful.	Strongly Disagree	65	17.8
	Disagree	64	17.5
	Neutral	105	28.7
	Agreed	92	25.1
	Strongly Agreed	40	10.9
9. I have other problems more important than having cervical exams in my life.	Strongly Disagree	32	8.7
	Disagree	96	26.2
	Neutral	94	25.7
	Agreed	137	37.4
	Strongly Agreed	7	1.9
10. I am too old to have cervical exams regularly.	Strongly Disagree	86	23.5
	Disagree	116	31.7
	Neutral	80	21.9
	Agreed	77	21.0
	Strongly Agreed	7	1.9
11. There is no health center close to	Strongly Disagree	50	13.7
	Disagree	74	20.2
	Neutral	117	32.0

my house to have cervical exams.	Agreed	86	23.5
	Strongly Agreed	39	10.7
12. If there is cancer development in my destiny, having cervical exams will not prevent it.	Strongly Disagree	69	18.9
	Disagree	26	7.1
	Neutral	161	44.0
	Agreed	88	24.0
	Strongly Agreed	22	6.0
13. I prefer a female health worker to conduct cervical exams.	Strongly Disagree	10	2.7
	Disagree	8	2.2
	Neutral	54	14.8
	Agreed	76	20.8
	Strongly Agreed	218	59.6
14. I will never have cervical exams if I have to pay for them.	Strongly Disagree	39	10.7
	Disagree	72	19.7
	Neutral	71	19.4
	Agreed	163	44.5
	Strongly Agreed	21	5.7
15. I would be ashamed to lie on a gynecologic examination table and show my private parts to have a cervical exam.	Strongly Disagree	49	13.4
	Disagree	21	5.7
	Neutral	118	32.2
	Agreed	134	36.6
	Strongly Agreed	44	12.0

Participants Practices About Cervical Cancer

The survey of this section of the study indicated that majority of the participants are aware much about the facts about cervical cancer. As per the results, there were 164 (44.8%) participants agreed that ‘women aged 50 years are more prone to cervical cancer’, 176 (48.1%) agreed women are more prone to cervical cancer at reproduction age, 180 (49.2%) believed vaginal bleeding is a sign of cervical cancer. There were 200 (54.6%) participants who thought foul smelling vaginal discharge is a symptom of cervical cancer. About Pap smear test, there were 148 (40.4%) participants thought the best way of screening cervical cancer. There were 204 (54.9%) participants thought that visual inspection of the cervix is a good way of diagnoses cervical cancer. Whereas, half of the sample i-e 181 (49.5%) participants disagreed that there is no way of screening cervical cancer (Table 4).

Table 4: Practice and Knowledge about Cervical Cancer

Participants' Attitude towards Cervical Cancer		Frequency	%
1. I think women aged 50 years are prone to cervical cancer.	Strongly Disagree	7	1.9
	Disagree	16	4.4
	Neutral	84	23.0
	Agreed	164	44.8
	Strongly Agreed	95	26.0
2. I think, during reproduction age, girls are women are prone to cervical cancer.	Strongly Disagree	9	2.5
	Disagree	10	2.7
	Neutral	119	32.5
	Agreed	176	48.1
	Strongly Agreed	52	14.2
3. I think vaginal bleeding is a sign of cervical cancer.	Strongly Disagree	11	3.0
	Disagree	18	4.9
	Neutral	125	34.2
	Agreed	180	49.2
	Strongly Agreed	32	8.7
4. I think foul-smelling vaginal discharge is a symptom of cervical cancer.	Strongly Disagree	10	2.7
	Disagree	35	9.6
	Neutral	95	26.0
	Agreed	200	54.6
	Strongly Agreed	26	7.1
5. I think contact bleeding is a sign of cervical cancer.	Strongly Disagree	8	2.2
	Disagree	37	10.1
	Neutral	119	32.5
	Agreed	181	49.5
	Strongly Agreed	21	5.7
6. I believe, pap Smear is a way of screening for the cervical test.	Strongly Disagree	11	3.0
	Disagree	35	9.6
	Neutral	83	22.7
	Agreed	89	24.3
	Strongly Agreed	148	40.4
7. I think visual inspection of the cervix is a good way of diagnosis cervical cancer.	Strongly Disagree	15	4.1
	Disagree	51	13.9
	Neutral	201	54.9
	Agreed	48	13.1
	Strongly Agreed	51	13.9
8. I think, there is no way of screening cervical cancer.	Strongly Disagree	181	49.5
	Disagree	80	21.9
	Neutral	53	14.5
	Agreed	40	10.9
	Strongly Agreed	12	3.3

In order to investigate the association between level of awareness and demographic characteristics of participants, Pearson Correlation test has attempted. All the variable showed correlated significant association at level $p=0.01$ level which is <0.05 . According to the correlation analysis, age, marital status, social status have positive strong relation with knowledge, attitude and practices of cervical cancer (Table 6). Age is significantly related to knowledge ($r=.394$, p -value = .000), attitude ($r=.331$, p -value = .000) and practice ($r=.283$, p -value = .000). The marital status is again significant positive related to knowledge about cervical cancer ($r=.458$, p -value = .000), attitude ($r=.397$, p -value = .000) and practice ($r=.248$, p -value = .000). The education is significant negatively related to knowledge about cervical cancer ($r= -.225$, p -value = .000), attitude ($r=.034$, p -value = .513) and practice ($r=.001$, p -value, .991) which is >0.05 . Finally, the social status is positively related to knowledge about cervical cancer ($r=.321$, p -value = .000), attitude ($r=.287$, p -value = .000) and practice ($r=.205$, p -value = .000). Thus, the results clearly determined the statistically significant relationship between age, marital status, knowledge and attitudes regarding cervical cancer.

Table 6: Correlation b/w Age, Marital Status, Education and Social Status with Knowledge, Attitude and Practice of Cervical Cancer

		KCC	ACC	PCC
KCC	Pearson Correlation	1	.223**	.301**
	Sig. (2-tailed)		.000	.000
ACC	Pearson Correlation	.223**	1	.578**
	Sig. (2-tailed)	.000		.000
PCC	Pearson Correlation	.301**	.578**	1
	Sig. (2-tailed)	.000	.000	
Age	Pearson Correlation	.394**	.331**	.283**
	Sig. (2-tailed)	.000	.000	.000
Marital Status	Pearson Correlation	.458**	.379**	.248**
	Sig. (2-tailed)	.000	.000	.000
Education	Pearson Correlation	-.225**	.034	.001
	Sig. (2-tailed)	.000	.513	.991
Social Status	Pearson Correlation	.321**	.287**	.205**
	Sig. (2-tailed)	.000	.000	.000

DISCUSSION

The present study results indicated that most of the participants have knowledge about cervical cancer, its risk factors and examination/ screening methods. Cervical cancer is the second life threatening cancer among women globally. This study was conducted with multiple groups' i-e students, faculty members, doctors, nurses and housewives in order to determine their knowledge about cervical cancer. Participants lacked adequate knowledge regarding early signs and symptoms of cervical cancer.

It examines community perspectives on whether cervical cancer is preventable or curable. Participants believed cervical cancer could be prevented and cured if detected at an early stage and were aware of risk factors and symptoms. A lack of awareness of Pap smears and vaccinations for young girls as preventive measures may be the result of insufficient health messages or the lack of screening services and vaccination against HPV in the region. The study found that more than half of participants held certain beliefs about cervical cancer that could limit the effectiveness of awareness campaigns on prevention, and divert help-seeking away from biomedical facilities.

The majority of the risk factors related to cervix cancer were not recognized by much more than 50% of those who participated in this study. According to the knowledge level of almost all of them (98%), nearly one-fifth of them (20%) were ignorant about it. The results of our analysis showed that, however, students and nurses had significantly better knowledge about cervical cancer than the general population. In many countries, there has been a report of a lack of awareness and knowledge about cervical cancer among women of different demographics and other characteristics (Mutayaba, 2006). In order to understand the prevention measures, a student must have a clear understanding of the causes and risk factors of cervical cancer. Among the risk factors, HPV is by far one of the most important factors of cervical cancer. Despite that, only 53.2% of the study participants knew that this particular form of cancer is caused by a certain infection. Based on a questionnaire-based design, researchers in Sri Lanka, India, and Nepal have come up with similar results i-e 48.9% in India, 52.5% in Nepal, and 48.5% in Sri Lanka (Teresa, 2011).

Studies have found that women with a high level of cervical cancer prevention knowledge and awareness of screening facility locations are more likely to seek screening (Lyimo, 2012). We found that most participants in our study knew that cervical cancer screening was available and the purpose of a Pap test, but only about one third were aware of where a free Pap test was available. This is consistent with previous studies (Bessler, 2007). The study results suggest that being able to access a health centre is not a major barrier to women getting screened for cervical cancer. The availability of free Pap smears at a health centre, and women's ability to attend the health centre for screening. These experiences have contributed to the lack of trust in public health care. Less than a third of the participants knew the recommended screening frequency. There is a lack of comprehensive knowledge about disease transmission, symptoms, risk factors, and screening locations among the women in our study, information that may help them seek preventive care.

Throughout the world, cancer is associated with cultural beliefs, myths, and stigmas. Culture has reduced Pap smear uptake and hindered health seeking for cervical cancer (Dinh, 2011) and requires culturally appropriate interventions to reduce or eliminate them. Government programme managers and agencies to develop and adopt culturally sensitive approaches to dispel potentially harmful beliefs about cervical cancer. It is critical that medical schools and other institutions of higher learning develop cultural competency courses into existing curricula so that health-care professionals can provide culturally competent care to their patients (Fang, 2011).

It is imperative that a comprehensive strategy is developed to provide women with information on cervical cancer and to remove barriers that prevent them from taking advantage of cervical cancer screening and follow-up care. Since doctors and nurses are the primary sources of knowledge about cervical cancer screening for women in the study (Table 5). The public health professionals can play a significant role in encouraging women to adopt protective health behaviours, dispelling misconceptions about screening tests, and providing comprehensive health education to keep women engaged with their health.

Furthermore, in relation to the belief that sexual contact with polygamous men and men before marriage can lead to cervical cancer. Abstaining from sexual activity until marriage delays sexual activity onset, delaying exposure to high-risk HPV infections at an early age, thus reducing the risk of cervical cancer. Polygamy may reduce risk of contracting different strains of high-risk HPV, which are associated with cervical cancer⁸. These beliefs are a fertile ground on which to build cervical cancer prevention campaigns. In order to motivate women to participate in cervical screening programmes, husbands and local community leaders should be involved in campaigns (Chigbu, 2013).

A number of limitations were identified in this study. This study was conducted with a limited sample size. There is a possibility that answers to questions such as "intention to screen" could be biased and vary according to the screening tests available. Due to time constraints, a large number of women were unable to be contacted. Still, the majority of the participants were able to be contacted. However, incomplete surveys reduced our sample size. Due to budget and time constraints, long-term follow-up of the participants has been impossible in order to determine whether the intervention had an impact on participant knowledge and screening practices over time.

CONCLUSION

Based on the findings of our study, health professionals may have more awareness about cervical risk factors and cancer screening. Also, those students who are taking course on cervical cancer are aware more as compared to other students. In order to encourage more women to perform regular cervical cancer screenings, women education programmes need to be implemented. Research evaluating the knowledge and attitudes of individuals who have a close relationship with women about health promotion education such as nurses and teachers will provide an indication of the size of the problem as well as assist in evaluating more effective screening programs. To better determine traditional and religious beliefs and attitudes concerning cervical cancer and pap tests,

studies with a larger sample size will be beneficial. Thus, results cannot be applied to the entire community. It should be noted, however, that the findings of the study can be used as a foundation for future intervention studies with students at university level and comparisons with other groups. Cancer of the cervix is totally preventable. It is imperative for healthcare providers to be proactive in promoting women's health and preventing disease in women. Making sure that healthcare professionals are aware of the benefits of routine cervical cancer screening and preventive methods will be a step toward reducing the incidence of cervical cancer in Pakistan.

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