

Evaluating awareness and screening of cervical cancer among women in Sharjah, United Arab Emirates

Zakia Metwali¹, Fatima Al Kindi², Sawsan Shanbleh³, Sarah Al Akshar³, Fadi Sarhan⁴

¹*Professor, Pharmacology and Microbiology Department, Pharmacy College, Ajman University of Science and Technology Network, Ajman, United Arab Emirates.*

²*Clinical Pharmacist, Alkuwaiti Hospital, Sharjah, United Arab Emirates.*

³*Lecturer, Clinical Pharmacy and Pharmacy Practice Department, Pharmacy College, Ajman University of Science and Technology Network, Ajman, United Arab Emirates.*

⁴*Sales Manager - Middle East, Welchalln Healthcare company, Dubai, United Arab Emirates.*

ABSTRACT : Carcinoma of the cervix uteri is the third most common cancer among women worldwide. It can be preventable by detecting precancerous lesions and early invasive cancers by various screening tools. Screening can be possible if women are aware of the problem and if they have positive attitude towards it. Therefore, this study was conducted to assess the knowledge, attitude and practice (KAP) of screening for carcinoma of the cervix (Pap smear) among married women in Sharjah, United Arab Emirates. A cross-sectional questionnaire based study was conducted from December 2013 to February 2014 in five primary health care clinics in Sharjah. Demographic profile of women was noted and questions pertaining to KAP on screening for cervical cancer were asked. The study included 212 respondents, of which 29% of respondents knew about the disease, 74.5% had knowledge about the Pap smear test, while only 10% were aware of one or more of the risk factors. In addition, 37.2% of the participants had never been screened for cervical cancer. More than 70% of women had a positive attitude towards screening, however, 59.9% did not know that they can be vulnerable to cervical cancer. The awareness and practice of the screening procedure of cervical cancer (Pap smear) among married women in Sharjah, UAE was low. However, the attitude of women towards screening was positive. Therefore, there is a need for intensifying health education provision on cervical cancer screening in the city, by educating women on possible susceptibility to cervical cancer & the possibility to prevent it by early detection.

KEYWORDS – Cervical cancer, Knowledge, Attitude, Practice, Pap smear.

I. INTRODUCTION

Cervical cancer is the seventh most common cancer, overall, and the third most common in women worldwide, in whom it comprises 9.8% of all cancers (371,200 new cases per year) [1]. In general terms, it is much more common in developing countries, where 78% of cases occur and where cervical cancer accounts for 15% of female cancers, with a lifetime risk of about 3% , whereas in developed countries it accounts for only 4.4% of new cancers, with a lifetime risk of 1.1% [2,3]. The American Cancer Society released new screening recommendations for the prevention and early detection of cervical cancer. Ideally, these new tests will increase the early detection of meaningful Pap smear abnormalities, reduce the number of unsatisfactory smears and provide fewer ambiguous results. It is also hoped that these new screening methods will not increase the number of false-positive results, but will improve the productivity of cytology laboratories without substantially increasing costs. The new tests include liquid-based/thin-layer preparations to improve the quality and adequacy of the Pap smear; computer-assisted screening methods to improve Pap smear interpretation; and new-generation human papillomavirus testing methods that may be useful in triaging patients with atypical squamous cells of undetermined significance or low-grade squamous intraepithelial lesions [3-5].

Ideally, an improved, more readable Pap smear or a technique that ensures that cytotechnologists do not miss important findings will improve patient outcomes and reduce morbidity and mortality from cervical cancer.

Many researchers have studied different designs to ascertain the knowledge and awareness of the women to cervical cancer . However, none of these studies were carried in UAE. Therefore this study was undertaken to assess the knowledge attitude and practice (KAP) of screening for carcinoma of the cervix (Pap smear) among married women in Sharjah, UAE.

II. MATERIALS AND METHODS

A cross-sectional questionnaire based study was conducted from December 2013 to February 2014 in five primary health clinics in Sharjah, UAE by means of interviews carried out by trained pharmacists with proper skills. The study was approved by Ajman University Ethical Committee and from Ministry of Health in Sharjah. A total of 212 respondents participated in the study. The sample size was calculated by using the built-in STATCALC of the Epi Info statistical software (Open Source Epidemiologic Statistics for Public Health). The inclusion criteria were married women with age between 20 to 60 years old. The exclusion criteria were women less than 20 years old and not married. All the women who gave informed consent to participate in the study were included. The response rate was 85%.

A questionnaire was used after Dr. Susana M. Nakalevu (November, 2009), it includes 21 questions divided in to four parts; the first part of the questionnaire was aimed at gathering details of a participant's social and demographic characteristics. The second part was to assess the level of knowledge of participants on cervical cancer and screening. The third part asks questions relating to attitude and the questions have been constructed in line with the Health Belief Model (HBM) which looks at the women's perceived susceptibility towards cervical cancer, their perceived severity of cervical cancer, perceived benefits and barriers to Pap smear screening. It also looks at anxiety levels associated with the test and social support. The final part of the questionnaire focused on the behavior and practice of participants. The questions tried to gauge the participant's level of participation in the Pap smear screening and gather details of issues relating to the Pap smear test.

The questionnaire was translated to Arabic for women who were not speaking English. Pre-testing was carried out on the target population for the purpose of validity and reliability of the instrument, gauging the length of an interview, familiarizing data collectors with the interview process, and to get a glimpse of possible pitfalls that one must anticipate and deal with.

DATA ANALYSIS: Upon completion of the questionnaires, the forms were checked for completeness, cleaned and prepared for analysis. SPSS version 21 software was used for data entry and analysis. All questions and variables were coded and then they were imported to SPSS for analysis. Results were presented as numbers with either percentages or graphic presentations for categorical variable. P value of less than 0.05 was considered significant.

III. RESULTS

3.1. Socio-demographic characteristics:

Only respondents with complete data were included in this study. Participants' Socio-demographic characteristics are presented in Table 1. Female's age was ranged from 20 to 60 years old. The highest frequency were 28-29 years old (7.1%), with a good distribution across the age groups (mean age was 32 years). Ninety two percent of the participants were married, few were divorced (6.1%) and very small percentages were widowed (1.9%), the majority of participants had children (80.7%) and 19.3% don't have , the average number of children of the participating women was 3 with standard deviation of +/- 2.04, the maximum was 13 and the minimum was 1. The level of education among the respondents was more than half had University level education (61.3%), fewer participants with secondary education (15%), less than (10%) middle school and technical institute and small proportion (4.2%) had reached primary level education, lastly a very small percentage was illiterate (0.9%). Ninety four (44.3%) of the respondents were working, more than third of them (40.1%) were housewives, a small proportion who were student (4.9%), only 13 (6.1%) were retired women.

Table 1: Socio- Demographic data of the respondents

Variables	Sub group	Frequency	Percent
Marital Status	Married	195	92.0
	Divorced	13	6.1
	Widowed	4	1.9
	Total	212	100.0
Do you have children			
	Yes	171	80.7
	No	41	19.3
	Total	212	100.0
Level of			
	Illiterate	2	.9
	Primary School	9	4.2

education	middle School	20	9.4
	Technical Institute/Vocational School or Similar	19	9.0
	University	130	61.3
	Other (secondary school graduate)	32	15.1
Best describes your main occupation	Employer	94	44.3
	Student	20	9.4
	Retired	13	6.1
	Housewife	85	40.1
Age	Minimum 20.00	Mean 32.8962	
	Maximum 60.00		
Number of Children	Minimum 1	Mean 3.3198	
	Maximum 13		

The rate of taking Pap smear test was observed to be higher among women who were from the age group of 28-50 years, university graduates, married, employed and who gave birth 2-3 times.

For those who have had a Pap smear test, about (19.8%) of them have had only one pap smear test, 11.3 % of them have had two pap smear tests and the rest have had three or more tests. Women in the 30.43 mean age group had the highest proportion of those who had a Pap smear test done. Thirty seven percent of women had a Pap smear test, 62.7 % who had never had a smear test. The proportion of women who had taken Pap smear tests was higher among women who had children (89.9%) compared to others (10.1%).

3.2. The participants' Scores of knowledge, attitude and practice

The participants' median score on knowledge was 2.08 on a scale with a maximum of 6 (range 0–6). The participants' median score on attitude was 4 on a scale with a maximum of 5 (range 0–5). While the participants' median score on practice was 3.66 on a scale with a maximum of 9 (range 0–9).

3.2.1. Knowledge level

Knowledge score range from the lowest score 0 (11.32%) to the highest score of 6 (2.36%) with the normal distribution as shown in figure (1). Mean (SD) score is 2.23 (1.466).

Eighty (37.7%) of respondents had a good knowledge score while 132 (62.26%) of respondents had a poor knowledge score. The proportions of correct responses were displayed in (Table 2). When the total scores apply for knowledge questions, only 5 (2.3%) had all right. Twenty nine percent of women were able to define the disease. Around 10% of participants knew the risk factors of cervical cancer. Seventy five percent of women knew why to do Pap smear test. Twenty six of women knew that cervical cancer isn't the leading malignant cause of death.

Figure 1: Distribution of knowledge score

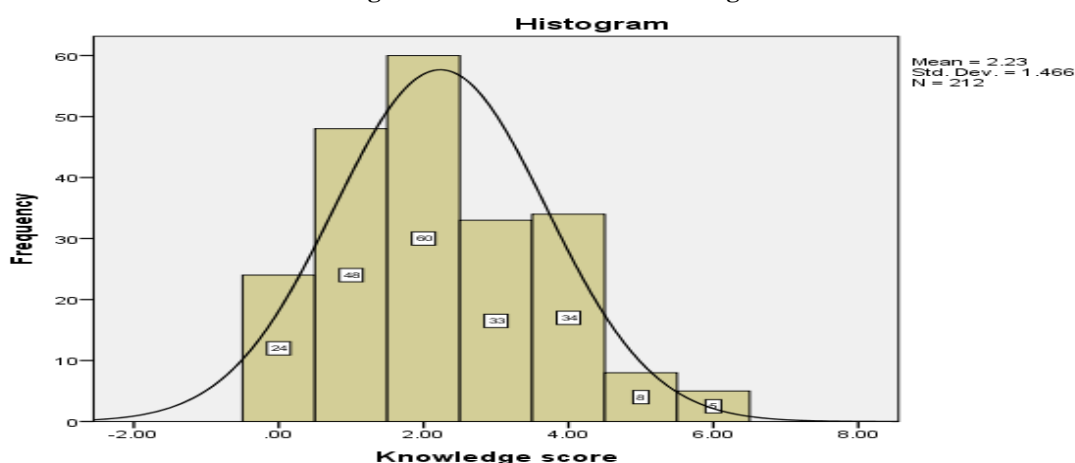


Table 2: Responses to the knowledge related questions.

Questions	Expected answer	N (%)
1. What is cancer of the cervix or cervical cancer?	Cancer of the mouth of the baby bag	61(28.8%)
2. What are some factors that can increase the risk of getting cervical cancer?	1. Family History of cervical cancer 2. Having many sexual partners 3. Having the viral infection caused by the human papillomavirus (HPV) 4. (1+2+3)	37(17.45%) 9(4.2%) 21(9.9%) 20(9.4%)
3. Why is Pap smear screening done for women?	To check for cancer or early changes of cancer in the cervix	158(74.5%)
4. Cervical Cancer is the number one cause of cancer death for women	False	55(25.9%)

Women who have had a Pap smear test as revealed in the result section (37 %) and this is related to their poor level of knowledge. Majority (62.7 %) who did not have a pap smear test done also stated that they don't know the of risk of developing cervical cancer. These women have stated reasons for not performing the pap smear such as the feeling of pain, screening is not performed by the senior consultant , lack of time ,do not want to see the result, husband non consent and feeling uncomfortable talking about cancer.

3.2.1.1 Association between occupation and knowledge of cervical cancer

Women with higher levels of education had a higher score of Knowledge on Cervical Cancer. $P=0.049$. There was a strong association with the level of education; highly educated women knowledge was better than those who never went to school or only went to primary school. The rate of Knowledge on Cervical Cancer and Pap Smear Screening test is higher in employed women. A statistically significant relationship was found between the status of occupation and Knowledge on Cervical Cancer and Pap Smear Screening test. Women's beliefs towards cervical cancer screening were influenced by the level of education. As the educational level rose, the women came to believe more in the fact that regular health applications and having Pap smear was protective against cervical cancer and their barriers towards having Pap smear made decreased.

3.2.2 Attitudes Level

Attitudes' score ranged from the lowest score 0 (1.9%) to the highest score of 5 (9%) with the normal distribution as shown in figure (2). Mean (SD) score is 3.6 (0.976). Seventy percent of respondents (147) had positive attitude score while 30% (65) had negative attitude score. Thirteen percent of women believe that they could have a risk of pre-cancer lesions. Eighty percent agreed that doing Pap smear test gave them a sense of control. Ninety percent agreed that early treatment of cervical cancer worth putting up with. Eighty six percent of women agreed to have Pap smear regularly. (Table 3).

3.2.2.1 Attitude (Barriers emotional, time consuming and Feeling of Anxiety)

Just over 87.7 % of women did not endorse any of the barrier statements. The most commonly endorsed barriers were fear of pain (100 %). Most of the women (97.2%) agreed that they will go for follow up if something wrong will be detected by Pap smear test. Only 2.8% were not convinced to go for follow up.

3.2.2.2 Attitude (Susceptibility)

More than half of the participants (59.9%) did not know that they can be susceptible to cervical cancer. Twenty seven percent of the participants did not believe to have pre-cancer lesions. Only 12.7% expected that they had pre-cancer lesions and therefore could be susceptible to cervical cancer

3.2.2.3 Attitude (Severity) Chance of cure for cervical cancer

Most of participants (90.6%) think that there is a good chance of cure. A Small proportions felt that cervical cancer is more severe than other forms of cancer (2.8%). About a third of the participants with a small number (14 women) did not know if the treatment of cervical cancer worth putting up with or not as shown in Table

3.2.2.4 Attitude (Benefits) regular Pap smear test give a sense of Control

More than three quarters of the participants perceived that Pap smear is beneficial. (80.7%), and having a test is valuable (86.3%) and will give them a sense of control. Table 8 and Table 9.

In regards to the attitude of women towards cervical cancer and pap smear screening, it was analyzed that there is 13% of women who believed that they could have pre-cancer lesions, they knew that suspect lesions can be detected early, 80% agreed that doing Pap smear test give sense of control. Ninety percent agreed that early treatment of cervical cancer worth putting up with the treatment. Eighty six percent of women had accepted doing regular Pap smear test. Concerning attitude, 80% of participates believed screening program in the case of the availability of cervical cancer screening in health center near them that having a regular Pap smear test gives them a sense of saving time. Most of the women (97.2%) agreed that they will go for follow up if something wrong will be detected by a Pap smear test. Only 2.8% were not go for follow up. Looking at severity as one of the variable of attitude, the majority of the women 90.6% has perceived that cervical cancer got more chance of cure and it is worth putting up with the treatment if any abnormal results are detected early. Basing from this results, it showed that if the majority of women had this positive attitude, it will motivate them to come forward and be tested and if any abnormal results are detected, then they are ready to put up with the treatment since they felt that the there is a good chance of cure for cervical cancer. However, about 9% of women irrespective of perceived susceptibility either didn't know or didn't think that the treatment of cervical cancer is worth putting up with.

Figure 2: Distribution of attitude score

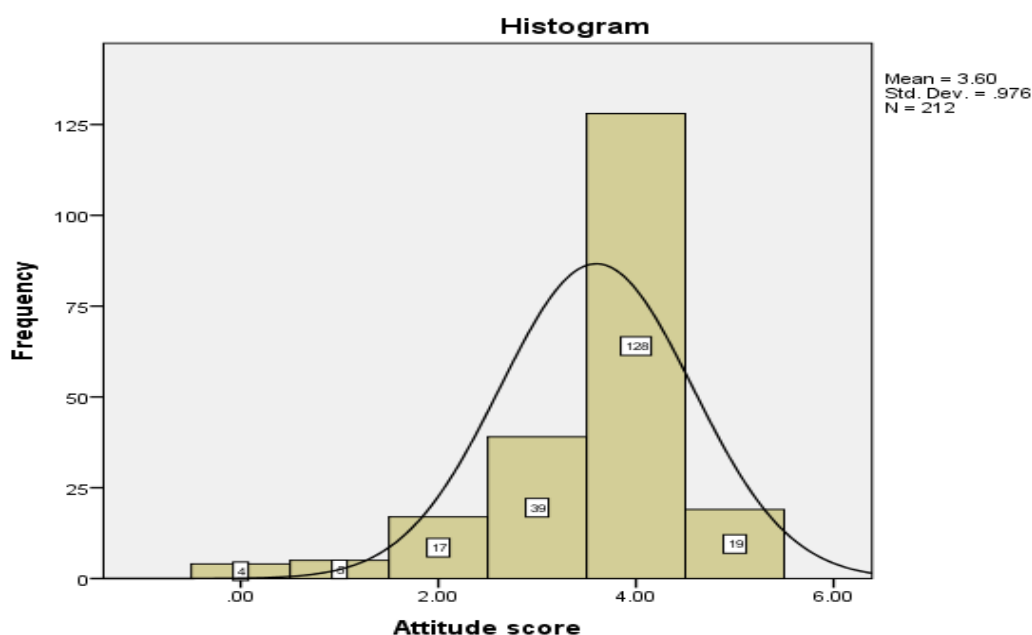


Table 3 responses to the attitude related questions:

Questions	Expected answer	N (%)
1. Do you believe that you could have pre-cancer lesions?	Yes	27 (12.7%)
2. Is the treatment of cervical cancer worth putting up with?	Yes	192 (90%)
3. Does having a regular Pap Smear test give you a sense of control?	Yes	171 (80%)
4. Is it valuable to have Pap smear regularly?	Yes	183 (86%)
5. In the case of the availability of cervical cancer screening in health center near you, Are you going to check?	Yes	186 (87.7%)

3.2.3 Practice Level

Practice score ranged from the lowest score 0 (1.4%) to the highest score of 9 (1.4%) with the normal distribution as shown in figure (3). Mean (SD) score is 3.95 (1.777).

Thirty eight percent of women had a Pap smear test. 20% of participants had already a Pap test once, 11% had the test twice in their lives , 2% had it three times and 5% had it more than three times. The majority of respondents 193 (91%) agreed to continue with pap smear test in the future. Around 50% of the respondents preferred to receive the results of Pap smear test face to face. Ninety seven percent would go for further follow up clinic if their Pap smear test results showed that they had some malignant changes (Table 4).

3.2.3.1 Level of education Vs having Pap smear

Women’s beliefs towards cervical cancer screening were influenced by the level of education. As the educational level rose, the women came to believe more in the fact that regular health applications and having Pap smear were protective against cervical cancer and their barriers towards having Pap smear decreased.

Figure 3: Distribution of practice score

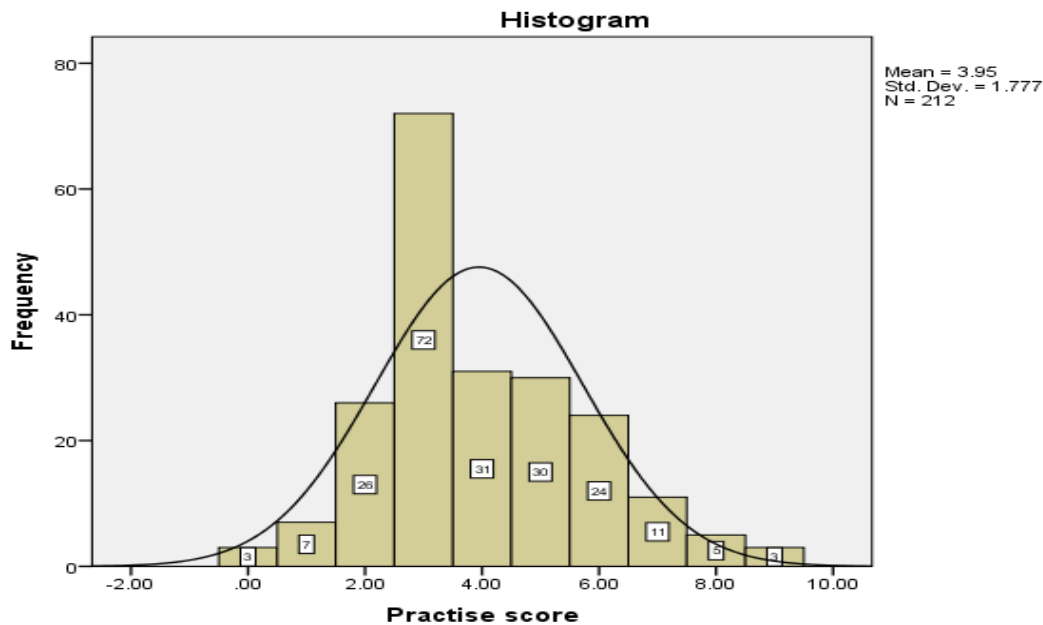


Table 4: Responses to the practice related questions

Questions	Expected answer	N (%)
1. Have you ever had a Pap smear test?	Yes	79 (37.3%)
2. If Yes, how many times have you had a Pap smear in the last 5 years?	Yes	One time 42 (19.8%) Two times 24 (11.3%) Three times 4 (1.9%) More than three times 10 (4.7%)
3. Are you planning to have or continue with Pap smear tests in the future?	Yes	193 (91%)
4. How do you prefer to receive the result of your Pap smear test?	1. Face-to-Face 2. In writing 3. Both 1 & 2 above	113 (53.3%) 11 (5.2%) 45 (21.2%)
5. If your Pap smear test result showed that you had some cancer changes, would you go for further follow-up clinic?	Yes	206 7.2%)

The proportion of women who had taken Pap smear tests was higher among women who had children (89.9%) compared to others (10.1%). Most of the women (~91%) of the participants reported that they plan to have or continue with Pap smear screening in the future. Up to 97.2% agreed that they will go for further follow up clinics if their Pap smear results showed cancer changes. Majority of the women (53.3%) preferred to

receive their Pap smear test results discussed in a face-to-face meeting. The correlations between the knowledge and attitude scores ($p=0.024$) and between attitude and practice ($p=0.014$) were significant, and the correlation between knowledge and practice ($p=0.038$) was significant. This finding adds to the growing body of evidence showing that increased knowledge is automatically translated into changes in attitude and practice.

IV. DISCUSSION

In United Arab Emirates, the Pap smear test is performed as a part of the pelvic examination from age 25-49 every 3 years after starting sexual activity, and from age 50-65 every 5 years [11]. But, the study found that more than One third (37.2%) of women in Sharjah, had never been screened for cervical cancer. This proportion is similar to uptake rates reported in various countries like in Qatar (40%) and Thailand (36.6%) [6,7], respectively. Increased frequency of testing with increased levels of education has been reported by some studies like Turkey 59.13% and Hong Kong [8,9].

Studies in Qatar reported that 76 % of the women had knowledge about the reason for doing Pap smear [6]. Some other studies from Kingdom of Saudi Arabia have also reported similar rates of women who were aware of the Pap smear 67.6% [10]. In our study, 74.5% of the women had knowledge about Pap smear test. The knowledge level on cervical cancer and Pap smear testing was “poor” in more than half of the participants 132 (62.26%).

Similar studies conducted elsewhere also showed that low level of knowledge, attitude and practice regarding cervical cancer among women in Kinshasa 12% , Nigeria 46% and Botswana 23% despite the high incidence of this cancer, [8, 12, 13] respectively . Increasing the women’s awareness is an important first step in the long chain of conditions to attain a lower incidence and mortality. In parallel with an increased awareness, the national health care system should facilitate and encourage early diagnosis and therapy.

A study conducted in Ireland showed that 55% of low risk and 45% of high risk women correctly identified the purpose of pap smear screening but for this study, more than 80% of women correctly identified the purpose for pap smear as screening for pre-cancer lesions but the level of risk in this study deals with the perceived risks of the participants towards developing cervical cancer.

Qatari women were with inadequate knowledge and practice among certain women groups, especially those under 30 years old, recently married, and those with low education level. However, women in Qatar have a positive attitude towards cervical screening services although they need to have reassurances that can reduce the barriers to having a test [6].

V. CONCLUSION

CONCLUSION: Cervical cancer continues to be a major public health problem in United Arab Emirates. The majority of respondent have had a poor knowledge about Pap smear test and the frequency of taking the test was low. The findings highlighted lack of knowledge and information on factors that may have contributed to women. Long term education should be started to provide the needed information. Women’s attitude was generally positive as most of them showed a positive attitude towards screening for premalignant cervical lesion. This attitude however did not improve practice and this could have been contributed by barriers that were lack of knowledge and perception that the procedure is painful and other barriers as shown in the results. Half of participants had good practice score while other half had low practice score. The females in our country should be informed about the disease and encouraged to do cervical screening (Pap smear test) and to perform HPV vaccination.

RECOMMENDATIONS: Effective strategies are needed to ensure that women get screened at the appropriate ages and intervals. There is a need to promote cervical cancer screening among women by informing them on their susceptibility to cervical cancer and encouraging a belief that active and regular screening can detect cervical cancer at the pre-cancerous stage, hence enabling the early treatment and prevention of cancer development. raising awareness of women regarding risk factors, and overcoming barriers to having the test such as fear and embarrassment.

LIMITATIONS: This study has some limitations which may influenced the result of the study. First, it was conducted in Sharjah health care centers, which may not be generalizable to other areas. Also the method of interviewing may have influenced the results. That is, women may have responded in a positive manner to the questions to present themselves in a socially desirable way. Similarly, responses are all self-reported and may not reflect true events

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