

Knowledge, Attitude and Practice of Cervical Cancer Screening in the Eastern Province of Saudi Arabia

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Abstract

Background: Cervical cancer is one of the serious diseases that affect women's lives. Fortunately, cervical cancer is a preventable and treatable disease; early detection has reduced its mortality and morbidity worldwide. Cervical cancer screening is a global public health concern. However, there are misconceptions, stigmas, and poor awareness associated with cervical cancer. This study aimed to examine the knowledge, attitude, practice and stigmas, and misconceptions associated with cervical cancer screening in the Eastern Province of Saudi Arabia. **Methodology:** A cross-sectional study was conducted among the general population in the eastern province of Saudi Arabia. Data collection was carried out using a structured questionnaire that included demographic information about knowledge, attitude, practice and stigmas and misconceptions associated with cervical cancer screening. **Results:** The study collected data from 400 participants, with a female majority (81.8%). The majority of participants were married (65%), had an undergraduate degree (64%), and fell within the 31-50 age range (43.3%). The results showed that the majority of the participants had heard of a PAP test (61.3%), 58.8% of participants had misconceptions regarding cervical cancer screening. The association between education and knowledge of PAP tests was statistically significant ($p=0.000$). **Conclusion:** This study highlights the need for public health interventions to improve knowledge and awareness of cervical cancer screening in the Eastern province of Saudi Arabia. The study recommends public interventions targeted to concern stigmas and misconceptions associated with cervical cancer screening.

Keywords: Cervical cancer, women's lives, misconceptions, PAP tests.

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INTRODUCTION

Cervical cancer is one of the serious diseases that affect women's lives all over the world. Cervical cancer is the fourth most frequent cancer in women with an estimated 570,000 new cases in 2018 representing 6.6% of all female cancers. Approximately 90% of deaths from cervical cancer occurred in low- and middle-income countries [1].

Saudi Arabia has a population of 9.29 million women ages 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 316 women are diagnosed with cervical cancer and 158 die from the disease. Cervical cancer ranks as the ninth most frequent cancer among women in Saudi Arabia and the ninth most frequent cancer

among women between 15 and 44 years of age. Data is not yet available on the HPV burden in the general population of Saudi Arabia. However, in Western Asia, the region Saudi Arabia belongs to, about 2.3% of women in the general population are estimated to harbor cervical HPV-16/18 infection at a given time, and 72.4% of invasive cervical cancers are attributed to HPVs 16 or 18 [2].

Cervical cancer is a slow growing cancer that takes long period to develop and it is asymptomatic in early stages. *Human papilloma virus*, a sexually-transmitted infection, it is associated with the development of cervical cancer, based on solid evidence from observational studies [3].

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Known risk factors include multiple sexual partners, early age of onset of sexual activity, increasing parity, early age of marriage and child birth, poor personal hygiene, low socio-economic status, use of hormonal contraceptives for 5 years or longer, current or previous sexually-transmitted infection and smoking [4].

Fortunately, cervical cancer is a preventable and treatable disease; early detection has reduced its mortality and morbidity worldwide. The strategies for prevention and control of cervical cancer include the modalities of primary prevention strategies (vaccination program), secondary prevention strategies (screening) (with Papanicolaou (Pap) smear is an efficient, affordable, and effective method of detecting cytological changes in the uterine cervix, or HPV DNA and tertiary prevention strategies (treatment methods) [5, 6].

The implementation of those strategies might differ between settings hence the modalities should be selected for the most appropriate for the local conditions and patients. Regardless of what strategies would be implemented, education is important factor for an effective cervical cancer prevention and control to achieve high target of the program, furthermore it is one of the prevention procedures that have been known to be useful for controlling cervical cancer at population level [5, 6].

Evidence suggests that cervical screening awareness and early detection through screening had a major impact on mortality associated with cervical cancer in developed nations like United States, Canada, United Kingdom, and Australia. In developing countries, cervical screening programs did not achieve the same results as with the developed countries in decreasing the incidence and mortality of the disease due to the low uptake rate of screening [7].

Moreover, serious cervical cancer screening program in Saudi Arabia is not well recognized. Low screening coverage leads to the fact that most patients come to the hospital with advanced disease. Most Saudi women seek medical care in late stage of disease which requires extensive chemo-radiation therapy. Women with late-stage cancers require medical care that may extent for many months after diagnosis to ensure the delivery of comprehensive care. Thus, financial burden of late-stage cancer treatment will cost the country more than early stage cancer [8].

Higher incidence and mortality have been found in less educated women and in women living in rural areas. Improving awareness through education can enhance the response to preventative health services. Different studies have emphasized the effect of women's knowledge as an important determinant of

attitude of risk and subsequent health seeking behavior accordingly [8].

Increasing women knowledge by education will improve their attitude toward cervical cancer and its screening methods and will enhance utilization of the screening. Consequently, this could reduce morbidities and mortalities resulting from cervical cancer [9, 10].

This work is based on the hypothesis that the knowledge and attitude and practice of women toward cervical cancer influence the disease's presentation and expression, including distribution, determinants and impacts both upon the individual and the community.

RESEARCH OBJECTIVES

Our objective is to examine the knowledge, attitude, practice and stigmas, and misconceptions associated with cervical cancer screening in the Eastern Province of Saudi Arabia. The study also aims to examine the gender differences, socio-economic status, stigmas, and misconceptions associated with cervical cancer screening.

METHODOLOGY

Study Design

A cross-sectional study was conducted among the general population in the Eastern Province of Saudi Arabia.

Study Participants

The study included participants aged 18 years and above of the general population in the Eastern province of Saudi Arabia.

Data Collection

Data collection was carried out using a structured questionnaire that included demographic information such as age, gender, marital status, and education level, reproductive, and professional characteristics of the respondents, knowledge about cervical cancer, the attitude towards cervical cancer and cervical cancer screening. Knowledge about cervical cancer was measured by using knowledge questions about risk factors, symptoms, treatments, and outcomes of cervical cancer. The questionnaire also contained Yes/No questions such as whether participants had ever heard of a PAP test and whether they had ever been diagnosed with cervical cancer. In addition, participants were asked to indicate their level of agreement or disagreement with statements about stigmas and misconceptions associated with cervical cancer screening using a 5-point Likert scale.

Study Procedure

The research team obtained ethical approval from the Research Ethics Committee of the Health Directorate of the Western province, before conducting

the study. The research team then obtained permission to conduct the study.

The research team approached potential participants and provided them with an explanation of the study's purpose. Participation in the study was voluntary, and participants were informed that they could withdraw from the study at any time without penalty. Informed consent was obtained from all participants before data collection. The participants were then asked to complete the structured questionnaire in Arabic. The research team was available to answer any questions or concerns participants had while completing the questionnaire.

Data Analysis

Data were analyzed using Statistical Package for the Social Sciences (SPSS) software version (insert version). The data were first cleaned, coded, and entered into the software. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize the data. Chi-square tests and t-tests were conducted to determine the relationships between variables. The level of statistical significance was set at $p < 0.05$.

RESULTS

The study collected data from 400 participants, with a female majority (81.8%). The age distribution was fairly even, with the majority falling within the 31-50 age range (43.3%). The majority of the participants were married (65%), followed by single (27.3%), divorced (5.3%), and widowed (2.5%). In terms of education level, most participants had an undergraduate degree (64%), followed by primary school (26.8%), postgraduate degree (6.8%), and diploma (2.5%).

Total knowledge score Mean \pm S.D. was 106.98 \pm 38.27, Participants with good knowledge constituted the majority (60.73) of the participants while who have poor knowledge were 39.27% (Table 2).

Table 3 shows the awareness and attitude of the participants regarding cancer cervix screening. The majority of participants (71.8%) did not agree that healthy women do not need a cervical cancer screening. However, a significant number of participants had misconceptions regarding cervical cancer screening, with 58.8% of participants believing that they are too old, feel embarrassed, or do not want to expose themselves to the doctor for screening. Furthermore, 78.8% of participants agreed that only married women

need to have cervical cancer screening, which is incorrect.

In terms of HPV vaccine, only 37% of participants had heard of it, and only 2.3% had received it. Furthermore, 31% of participants agreed that the HPV vaccine is only for married women, which is not true. Interestingly, 47.8% of participants believed that the HPV vaccine can cure cervical cancer, which is a common misconception.

The majority of participants (77.3%) disagreed that women with cervical cancer give them a feeling of dirtiness, and 78.5% disagreed that one should keep a social distance from women with cervical cancer. However, 46.8% of participants agreed that women develop cervical cancer due to unhealthy sexual habits, which is also not entirely true.

Lastly, 41% of participants were willing to pay to get vaccinated, and 30% agreed to pay for it, which is an encouraging finding.

The results presented in Table 4 show the association between education and knowledge, history, and awareness regarding HPV. Among the respondents who had a high school education or lower, 42.6% had never heard of a PAP test, compared to only 1.9% of those with a diploma and 4.5% of those with a postgraduate education. The association between education and knowledge of PAP tests was statistically significant ($p=0.000$). Similarly, a larger proportion of respondents with a high school education or lower had never heard of the HPV vaccine (32.1%), compared to 2% of those with a diploma and 2.8% of those with a postgraduate education. This association was also statistically significant ($p=0.000$). There was no significant association between education and having received the HPV vaccine ($p=0.566$). Respondents with a higher education level were less likely to believe they were too old for cervical cancer screening ($p=0.001$) and less likely to feel embarrassed about it ($p=0.003$) or not want to expose themselves to the doctor ($p=0.000$). Finally, there was a significant association between education and the belief that healthy women do not need cervical cancer screening ($p=0.009$), with those with higher education levels less likely to hold this belief. Overall, the results suggest that education plays a critical role in HPV knowledge, history, and awareness, and that targeted educational interventions may be needed to improve awareness and increase uptake of HPV-related services among individuals with lower education levels.

Table 1: Sociodemographic characters of the participants (n=400).

Parameter		Frequency (%)
Age group, y	18 -	129 (32.3%)
	31 -	173 (43.3%)
	51 - 67	98 (24.5%)
Marital Status	Widowed	10 (2.5%)

Parameter		Frequency (%)
	Single	109 (27.3%)
	Married	260 (65%)
	Divorced	21 (5.3%)
Education level	Diploma	10 (2.5%)
	Primary School	107 (26.8%)
	Undergraduate	256 (64%)
	Postgraduate	27 (6.8%)
Gender	Female	327 (81.8%)
	Male	73 (18.3%)

Table (2): Distribution of the studied population according to cervical cancer screening knowledge level groups (No=400)

Knowledge	Summary statistics
Poor knowledge	39.27%
Good knowledge	60.73%
Total knowledge score Mean± S.D.	106.98 ± 38.27
Median (Range)	116 (18– 159)

Table 3: Awareness and attitude of the participants regarding PAP smear test (n=400)

Item	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I believe I am old for a cervical cancer screening?	68 (17%)	162 (40.5%)	127 (31.8%)	34 (8.5%)	9 (2.3%)
I feel embarrassed for a cervical cancer screening?	88 (22%)	155 (38.8%)	78 (19.5%)	57 (14.2%)	22 (5.5%)
Do not want to expose myself to the doctor?	91 (22.8%)	148 (37%)	87 (21.8%)	55 (13.8%)	19 (4.8%)
Healthy women do not need a cervical cancer screening?	80 (20%)	177 (44.3%)	88 (22%)	41 (10.3%)	14 (3.5%)
Only married women need to have cervical cancer screening?	78 (19.5%)	162 (40.5%)	76 (19%)	71 (17.8%)	13 (3.3%)
I do not want to know if I have cervical cancer?	147 (36.8%)	167 (41.8%)	48 (12%)	29 (7.2%)	9 (2.3%)
HPV vaccine can cure cervical cancer?	29 (7.2%)	62 (15.5%)	191 (47.8%)	84 (21%)	34 (8.5%)
Women are responsible for causing their own cervical cancer?	79 (19.8%)	127 (31.8%)	141 (35.3%)	36 (9%)	17 (4.3%)
Women with cervical cancer give me a feeling of dirtiness?	222 (55.5%)	145 (36.3%)	22 (5.5%)	9 (2.3%)	2 (0.5%)
Women develop cervical cancer due to unhealthy sexual habits?	51 (12.8%)	104 (26%)	113 (28.2%)	73 (18.3%)	59 (14.8%)
One should keep a social distance from women with cervical cancer?	143 (35.8%)	143 (35.8%)	94 (23.5%)	17 (4.3%)	3 (0.8%)

Table 4: Education in association with knowledge, history and awareness regarding HPV (n=400)

Parameter		Educational level				P-value
		High school	Diploma	Undergraduate	Postgraduate	
Have you ever heard of a PAP test?	No	66 (42.6%)	3 (1.9%)	79 (51%)	7 (4.5%)	0.000
	Yes	41 (16.7%)	7 (2.9%)	177 (72.2%)	20 (8.2%)	
Have you ever heard of HPV vaccine?	No	81 (32.1%)	5 (2%)	159 (63.1%)	7 (2.8%)	0.000
	Yes	26 (17.6%)	5 (3.4%)	97 (65.5%)	20 (13.5%)	
Ever received the HPV vaccine?	No	103 (26.3%)	10 (2.6%)	251 (64.2%)	27 (6.9%)	0.566
	Yes	4 (44.4%)	0 (0%)	5 (55.6%)	0 (0%)	
Have you ever been diagnosed with HPV?	No	104 (26.3%)	10 (2.5%)	256 (64.6%)	26 (6.6%)	0.042
	Yes	3 (75%)	0 (0%)	0 (0%)	1 (25%)	
I believe I am old for a cervical cancer screening?	Strongly Disagree	12 (17.6%)	4 (5.9%)	42 (61.8%)	10 (14.7%)	0.001
	Disagree	33 (20.4%)	1 (0.6%)	117 (72.2%)	11 (6.8%)	
	Neutral	42 (33.1%)	4 (3.1%)	75 (59.1%)	6 (4.7%)	
	Agree	15 (44.1%)	1 (2.9%)	18 (52.9%)	0 (0%)	

Parameter		Educational level				P-value
		High school	Diploma	Undergraduate	Postgraduate	
I feel embarrassed for a cervical cancer screening?	Strongly agree	5 (55.6%)	0 (0%)	4 (44.4%)	0 (0%)	0.003
	Strongly Disagree	14 (15.9%)	4 (4.5%)	60 (68.2%)	10 (11.4%)	
	Disagree	46 (29.7%)	3 (1.9%)	99 (63.9%)	7 (4.5%)	
	Neutral	14 (17.9%)	1 (1.3%)	54 (69.2%)	9 (11.5%)	
	Agree	21 (36.8%)	2 (3.5%)	33 (57.9%)	1 (1.8%)	
Do not want to expose myself to the doctor?	Strongly agree	12 (54.5%)	0 (0%)	10 (45.5%)	0 (0%)	0.000
	Strongly Disagree	18 (19.8%)	4 (4.4%)	61 (67%)	8 (8.8%)	
	Disagree	41 (27.7%)	2 (1.4%)	100 (67.6%)	5 (3.4%)	
	Neutral	19 (21.8%)	0 (0%)	54 (62.1%)	14 (16.1%)	
	Agree	20 (36.4%)	4 (7.3%)	31 (56.4%)	0 (0%)	
Healthy women do not need a cervical cancer screening?	Strongly agree	9 (47.4%)	0 (0%)	10 (52.6%)	0 (0%)	0.009
	Strongly Disagree	13 (16.3%)	1 (1.3%)	54 (67.5%)	12 (15%)	
	Disagree	42 (23.7%)	6 (3.4%)	122 (68.9%)	7 (4%)	
	Neutral	31 (35.2%)	3 (3.4%)	50 (56.8%)	4 (4.5%)	
	Agree	15 (36.6%)	0 (0%)	24 (58.5%)	2 (4.9%)	
Only married women need to have cervical cancer screening?	Strongly agree	6 (42.9%)	0 (0%)	6 (42.9%)	2 (14.3%)	0.001
	Strongly Disagree	12 (15.4%)	2 (2.6%)	50 (64.1%)	14 (17.9%)	
	Disagree	40 (24.7%)	4 (2.5%)	110 (67.9%)	8 (4.9%)	
	Neutral	19 (25%)	3 (3.9%)	51 (67.1%)	3 (3.9%)	
	Agree	31 (43.7%)	1 (1.4%)	37 (52.1%)	2 (2.8%)	
I do not want to know if I have cervical cancer?	Strongly agree	5 (38.5%)	0 (0%)	8 (61.5%)	0 (0%)	0.072
	Strongly Disagree	28 (19%)	4 (2.7%)	104 (70.7%)	11 (7.5%)	
	Disagree	48 (28.7%)	4 (2.4%)	103 (61.7%)	12 (7.2%)	
	Neutral	12 (25%)	2 (4.2%)	30 (62.5%)	4 (8.3%)	
	Agree	13 (44.8%)	0 (0%)	16 (55.2%)	0 (0%)	
HPV vaccine can cure cervical cancer?	Strongly agree	6 (66.7%)	0 (0%)	3 (33.3%)	0 (0%)	0.020
	Strongly Disagree	3 (10.3%)	2 (6.9%)	19 (65.5%)	5 (17.2%)	
	Disagree	17 (27.4%)	0 (0%)	43 (69.4%)	2 (3.2%)	
	Neutral	48 (25.1%)	2 (1%)	130 (68.1%)	11 (5.8%)	
	Agree	27 (32.1%)	4 (4.8%)	45 (53.6%)	8 (9.5%)	
Women are responsible for causing their own cervical cancer?	Strongly agree	12 (35.3%)	2 (5.9%)	19 (55.9%)	1 (2.9%)	0.011
	Strongly Disagree	10 (12.7%)	2 (2.5%)	56 (70.9%)	11 (13.9%)	
	Disagree	35 (27.6%)	3 (2.4%)	81 (63.8%)	8 (6.3%)	
	Neutral	41 (29.1%)	4 (2.8%)	92 (65.2%)	4 (2.8%)	
	Agree	17 (47.2%)	0 (0%)	16 (44.4%)	3 (8.3%)	
Women with cervical cancer give me a feeling of dirtiness?	Strongly agree	4 (23.5%)	1 (5.9%)	11 (64.7%)	1 (5.9%)	0.000
	Strongly Disagree	38 (17.1%)	6 (2.7%)	163 (73.4%)	15 (6.8%)	
	Disagree	55 (37.9%)	2 (1.4%)	81 (55.9%)	7 (4.8%)	
	Neutral	9 (40.9%)	2 (9.1%)	8 (36.4%)	3 (13.6%)	
	Agree	4 (44.4%)	0 (0%)	3 (33.3%)	2 (22.2%)	
Women develop cervical cancer due to unhealthy sexual habits?	Strongly agree	1 (50%)	0 (0%)	1 (50%)	0 (0%)	0.261
	Strongly Disagree	6 (11.8%)	1 (2%)	41 (80.4%)	3 (5.9%)	
	Disagree	26 (25%)	3 (2.9%)	69 (66.3%)	6 (5.8%)	
	Neutral	32 (28.3%)	4 (3.5%)	72 (63.7%)	5 (4.4%)	
	Agree	25 (34.2%)	1 (1.4%)	41 (56.2%)	6 (8.2%)	
One should keep a social distance from women with cervical cancer?	Strongly agree	18 (30.5%)	1 (1.7%)	33 (55.9%)	7 (11.9%)	0.006
	Strongly Disagree	29 (20.3%)	1 (0.7%)	97 (67.8%)	16 (11.2%)	
	Disagree	38 (26.6%)	5 (3.5%)	96 (67.1%)	4 (2.8%)	
	Neutral	28 (29.8%)	4 (4.3%)	57 (60.6%)	5 (5.3%)	
	Agree	10 (58.8%)	0 (0%)	5 (29.4%)	2 (11.8%)	
	Strongly agree	2 (66.7%)	0 (0%)	1 (33.3%)	0 (0%)	

DISCUSSION

This study was a cross sectional study, aimed to investigate the level of awareness, knowledge, practice and attitude among the general population of

the Eastern province of Saudi Arabia toward cervical cancer screening.

Participants with good knowledge constituted the majority (60.73) of the participants while who have poor knowledge were 39.27%. Total knowledge score Mean \pm S.D. was 106.98 \pm 38.27.

Sajid Durrani, *et al.*, (2019) conducted a Cross-Sectional study about Knowledge, Attitudes, and Practices towards Cervical Cancer and Screening amongst Female Healthcare Professionals in Saudi Arabia. Results showed that there was a poor knowledge of cervical cancer. Also, Hoda Jradi, *et al.*, (2018) carried out a study in Riyadh, Saudi Arabia, among women aged between ages 18 and 45 years to examine women's awareness of cervical cancer, HPV, barriers, acceptance, beliefs, and attitudes towards the HPV vaccine. Results showed that participants had lack of knowledge and awareness of cervical cancer. Similar to our results, Zulalqarnain Baloch, *et al.*, carried out a study was designed to determine the level of knowledge and awareness about cervical cancer, HPV, and the HPV vaccine among Chinese women. The results showed 52.6% of the women were aware of cervical cancer, the overall, awareness and knowledge about cervical cancer was moderate, knowledge and awareness of HPV and the HPV vaccine was very low. Dorah U. Ramathuba, *et al.*, (2016) conducted a study to assess the knowledge, attitudes and practices regarding cervical cancer prevention among rural women in Vhembe District in Limpopo Province. Results revealed the lack of knowledge about cervical cancer and the prevention method due to the limited awareness of cervical cancer. In Johnson *et al.*, (2014) study to assessed human papillomavirus (HPV), cervical cancer, and HPV vaccine knowledge and awareness among women in two sub-populations in Nepal – Khokana and Sanphebagar. The results revealed that Knowledge and awareness of HPV, cervical cancer, and the HPV vaccine remains low among women in Khokana and Sanphebagar. And the acceptance for HPV vaccine was high for their children. Touch S, *et al.*, (2018) conducted study to assess knowledge, attitudes and practices toward cervical cancer prevention among women in Cambodia [15]. The study found that 34% of women had heard about cervical cancer, which is less than our figure.

The results of this study showed a significant association between education level and knowledge, history, and awareness of HPV among women. Women with higher levels of education were more likely to have heard of PAP tests, HPV vaccines, and to have received the HPV vaccine. They were also less likely to believe that they were too old for cervical cancer screening or to feel embarrassed about it. In contrast, women with lower levels of education were more likely to have never heard of PAP tests or the HPV vaccine and to feel embarrassed or uncomfortable about cervical cancer screening. These findings are consistent with previous research that has shown a relationship between education level and health literacy.

The findings of the current study are consistent with those of previous studies conducted in developing countries such as Ghana and India [10-12], where the lack of national screening programs and stigmatization among women were identified as barriers to cervical cancer screening. Similarly, in our study, a significant number of participants had misconceptions and lacked knowledge regarding cervical cancer screening and the HPV vaccine, suggesting that these issues may be universal and require targeted interventions to improve awareness and increase uptake.

In comparison, Grigore *et al.*, explored the awareness level of HPV and cervical cancer among women in Romania on a total of 214 participants. They reported that overall, most of the participants had good awareness level regardless of their educational program. This was contributed to the fact that Romania has a vaccination campaign organized by the Ministry of Health of Romania [13]. However, the same study showed that the knowledge of vaccination and its importance was low, despite having good awareness about the topic. Around 68% of them did not know the age recommendation on which the vaccination and screening should be carried [13]. In the Middle East and North Africa, the incidence of HPV and cervical carcinoma is lower than the rest of the world due to cultural and religious factors [14]. However, as generations are changing and more liberal practices are being accepted among them, it is important to address important health topics. In the Middle East, the United Arab Emirates (UAE) are the only one who implemented a national vaccination program and showed a very high rate of absorption of the program by 77% [14]. Nonetheless, Rihab conducted a systematic review on the knowledge, awareness and acceptability of anti- HPV vaccine [14].

The findings of this study have several implications for public health interventions aimed at promoting cervical cancer prevention. First, the results suggest that interventions to increase knowledge and awareness of HPV should target women with lower levels of education. These women may be less likely to have access to accurate health information, or they may lack the skills to understand and interpret health-related information. Interventions that use clear and simple language and that are tailored to the needs and preferences of this population may be more effective.

Second, the results highlight the importance of addressing the social and cultural factors that may influence attitudes towards cervical cancer screening. Women with lower levels of education may be more likely to hold beliefs that are based on misconceptions or myths about cervical cancer screening, such as the belief that healthy women do not need screening. They may also face barriers to accessing healthcare, such as financial constraints or lack of transportation.

Interventions that address these social and cultural factors may be more effective in promoting cervical cancer prevention among women with lower levels of education.

Third, the results suggest that healthcare providers play a critical role in promoting cervical cancer prevention among women. Women who have never heard of PAP tests or the HPV vaccine may be more likely to seek information and advice from healthcare providers. Healthcare providers can use this opportunity to provide accurate and comprehensive information about HPV, the importance of regular screening and vaccination, and the potential risks and benefits of these interventions. They can also address any misconceptions or concerns that women may have about cervical cancer screening and provide support and guidance to help women overcome any barriers to accessing healthcare.

Fourth, the results highlight the need for continued efforts to promote HPV vaccination among women. Although the HPV vaccine is highly effective in preventing cervical cancer, uptake of the vaccine remains low in many countries, including the United States. Women with higher levels of education were more likely to have received the vaccine, suggesting that interventions to promote vaccination should target women with lower levels of education. These interventions should address the barriers to accessing healthcare, such as financial constraints or lack of transportation that may prevent women from receiving the vaccine.

Limitations

There are several limitations to this study that should be considered when interpreting the results. First, the study sample was limited to a single geographic region, which may limit the generalizability of the findings to other populations. Second, the study relied on self-reported data, which may be subject to recall bias or social desirability bias. Third, the study did not collect information about other factors that may influence knowledge and awareness of cervical cancer such as social support or access to health information. Future research should address these limitations to provide a more comprehensive understanding of the factors that influence cervical cancer prevention among women.

CONCLUSION

This study highlights the need for public health interventions to improve knowledge and awareness of cervical cancer screening in the Eastern province of Saudi Arabia. The study recommends public interventions targeted to concern stigmas and misconceptions associated with cervical cancer screening.

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