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Original Research Article

KNOWLEDGE ABOUT CERVICAL CANCER AND PAP SMEAR AND THE FACTORS INFLUENCING THE PAP TEST SCREENING AMONG SHAIKH ZAID WOMEN HOSPITAL

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Abstract: *Cervical cancer remains one of the most preventable types of cancer, with a strong link to persistent infection by certain high-risk strains of the Human Papillomavirus (HPV).* ***Objective:*** *The main objective of the study is to find knowledge about cervical cancer and pap smears and the factors influencing Pap test screening at Shaikh Zaid Women's Hospital.* ***Methods:*** *This cross-sectional study was conducted at Sheikh Zayed Women's Hospital Larkana OPD from January 2024 to June 2024. A total sample size of 250 women was selected using a convenient sampling technique. Patients aged 18 years and above who were willing to participate in the study and provided informed consent. Women who had undergone a hysterectomy or had a known history of cervical cancer were excluded from the study.* ***Results:*** *Data were collected from 250 patients. The demographic analysis revealed that the majority of participants were between the ages of 18-29 years (45%), followed by those aged 30-39 years (32%). Most women had secondary education (55%), with a smaller proportion having higher education (35%) or primary education (10%). The majority of participants were married (80%), and a significant number had an income level below the national median (70%). The screening-related data revealed that while 65% of participants had heard of the Pap smear test, only 40% had actually undergone it. Among those who had undergone a Pap smear, 60% had done so within the past year, 30% in the last 2-3 years, and 10% had waited more than 3 years.* ***Conclusion:*** *It is concluded that the uptake of Pap smear screening among women at Sheikh Zayed Women Hospital in Larkana is influenced by factors such as awareness, education, income, and emotional barriers. Despite general awareness of cervical cancer, significant barriers like fear, stigma, and financial constraints hinder participation.*

Keywords: Cervical Cancer Pap smear Human Papillomavirus Cancer Screening Health Knowledge, Attitudes, and Practice

Introduction

Cervical cancer remains one of the most preventable types of cancer, with a strong link to persistent infection by certain high-risk strains of the Human Papillomavirus (HPV). HPV infection leads to the alteration of cervix cells and may lead to cancer in several years if not treated. Alzheimer's disease usually occurs in women in their post-menopausal era, and this is the main reason it targets women aged between 30 and 50 years, although anyone may be affected (1). Cervical cancer ranks fourth among female cancers throughout the globe, and in developing countries, cervical cancer remains one of the most common cancers affecting women. Screening is the most critical weapon in the fight against cervical cancer and the Pap smear, or Papanicolaou test, is one of the best ways of identifying pre-cancerous changes in the cervix (2). Pap smear remains a common and important screening test where cells from the cervix are sampled in an attempt to detect malignancies. This procedure has been very crucial in the fight against cervical cancer, as far as it is done frequently. Pap smear helps detect the abnormally changed cervical cells which are precancerous and can be treated before they develop into cancer. Hence, due to the introduction of the program that promotes mammograms for cervical carcinoma, cervical carcinoma rates have significantly reduced in many of the developed nations (3). Although cervical cancer mortality has been significantly reduced by the use of Pap smear screening, several factors that hamper its uptake across the world, especially in LMICs have been widely documented (4). Another prime consideration for cervical cancer innovation is the level of awareness among women and the population in general on cervical cancer and the need for screening (5). Although there is evidence documenting inadequacies in knowledge about cervical cancer risk factors, screening benefits, and possibilities of early diagnosis among many women particularly those in rural or hard-to-reach settings, this paper seeks to fill this gap. Lack of information on the Pap smear test, or holding the wrong impression about the test can result in low turnout for screening services. Another factor that affects the outcome and women's willingness to take screening is cultural norms that are upheld in society (6). There is a perception that in some communities' people especially women are encouraged not to talk about matters touching on reproductive health including cervical cancer and Pap smear. In such situations, women may not be comfortable with the screening or even with talking about these issues with the doctors. In addition, cultural beliefs such as an influent culture for women's treatment can cause delays in seeking medical attention or a refusal to adopt preventive health services (7). This type of health care has been predicted by numerous socio-cultural factors like accessibility to health care services. Unfortunately, in several countries to date, there are inadequate and poor health care facilities, few and inadequately trained physicians and other health care providers, and few diagnostic and screening services. In such an environment, a woman may not be in a position to undergo a Pap smear test or may not afford to pay for the test (8). Logically, for women in remote or rural areas, just the act of getting to a

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healthcare facility for the Pap smear test may be costly and time-consuming which discourages them. They also showed that socioeconomic factors are important in determining if a woman will undertake a Pap smear screening. Better-educated women receive proper education, health care, and preventive services than less educated or less privileged women. Conversely, women who come from low-income backgrounds may have several barriers to their screening they may lack transport, money, or access to good health facilities. Previous research indicates that disadvantaged women, who have poor literacy levels are less likely to embrace cervical cancer screening (9). Another measure of individual characteristics that affects Pap smear screening uptake includes: And this is the main problem, women in their thirties and twenties seldom attend this test even though it is very important when the cancer is still in its early stage (10). Evaluating all aspects of sexual behavior, active sexual debut, and number of sexual partners are linked to HPV risk, and such women are encouraged to commence screening at an earlier age. In addition, women who smoke are at increased risk of cervical cancer because the consequences of cigarette smoke are damaging to their immunity and cervical cells. They consist of the following and they must be resolved if the take up of Pap smear testing is to increase and if cervical cancer is to be eradicated (11). The methods undertaken by ministries of health to educate the populace on the importance of early detection, the value of screening, and the HPV cervical cancer link can help women take charge. In addition to this, healthcare systems need to pursue the use of resources for training healthcare personnel to be capable of conducting high-value screenings as well as delivering satisfactory information to the patients. Furthermore, increased access to affordable and accessible screening services especially among women in rural or other hard-to-reach regions will go a long way in increasing participation in screening activities (12). **Objective** The main objective of the study is to find knowledge about cervical cancer and pap smears and the factors influencing Pap test screening at Shaikh Zaid Women's Hospital.

Methodology

This cross-sectional study was conducted at Sheikh Zayed women's Hospital Larkana OPD during January 2024 to June 2024. A total sample size of 250 women was selected using a convenient sampling technique. Patients aged 18 years and above who were willing to participate in the study and provided informed consent. Women who had undergone a hysterectomy or had a known history of cervical cancer were excluded from the study. Data collection involved administering a structured questionnaire, which was completed by trained research assistants who were available to assist participants with any questions they had. The questionnaire was divided into several sections: They include; demographic characteristics, knowledge about cervical cancer, knowledge and practice about Pap smear, and perceived barriers to cervical cancer screening. Extra questions on health history risk about sexual activity, smoking and other concerns were incorporated in order to give an overall understanding of the women's health profile. Data were analyzed using SPSS v26. Descriptive statistics, such as frequencies and percentages, were used to summarize the demographic characteristics of the participants and their responses to the survey questions. Inferential statistics, including chi-square tests or logistic regression, were used to determine any significant associations between socio-demographic factors (such as age, education, income) and the likelihood of undergoing Pap smear screening.

Results

Data were collected from 250 patients. The demographic analysis revealed that the majority of participants were between the ages of 18-29 years (45%), followed by those aged 30-39 years (32%). Most women had secondary education (55%), with a smaller proportion having higher education (35%) or primary education (10%). The majority of participants were married (80%), and a significant number had an income level below the national median (70%). The awareness analysis showed that a majority of the participants (70%) were aware of cervical cancer, but only 40% were aware of the link between HPV and cervical cancer. The primary source of awareness was healthcare providers, cited by 60% of the participants, followed by family and friends (30%). Media sources, including TV, radio, and the internet, accounted for only 10% of the sources of awareness. The screening-related data revealed that while 65% of participants had heard of the Pap smear test, only 40% had actually undergone it. Among those who had undergone a Pap smear, 60% had done so within the past year, 30% in the last 2-3 years, and 10% had waited more than 3 years. The study also identified several barriers to screening, with the most common being a lack of awareness (35%), followed by fear and embarrassment (25%) and financial constraints (20%). Cultural or social stigma and limited access to healthcare were less frequently cited, both at 10%.The reasons for not undergoing Pap smear screening, as reported by the 150 participants who had not been screened, showed that the primary barriers were a lack of awareness about the test (30%) and fear of pain or discomfort (27%). Cultural or social stigma was a concern for 17% of the participants, while 13% cited the cost of the test as a significant factor. Lack of healthcare access and time constraints were each mentioned by 7% of participants.

Table 1: Demographic Characteristics of Participants

Demographic Factor	Frequency (n=250)	Percentage (%)
Age		
18-29 years	113	45%
30-39 years	80	32%
40-49 years	37	15%
50 years and above	20	8%
Education		
Primary Education	25	10%
Secondary Education	137	55%
Higher Education	88	35%
Marital Status		
Married	200	80%
Unmarried	50	20%
Income Level		
Below National Median	175	70%
Above National Median	75	30%

Table 2: Awareness of Cervical Cancer

Awareness Factor	Frequency (n=250)	Percentage (%)
Aware of Cervical Cancer	175	70%
Aware of HPV-Cervical Cancer Link	100	40%
Source of Awareness		
Healthcare Providers	150	60%
Family/Friends	75	30%
Media (TV, Radio, Internet)	25	10%

Table 3: Experience with Pap smear Screening

Screening Factor	Frequency (n=250)	Percentage (%)
Heard of Pap Smear Test	163	65%
Ever Underwent Pap Smear	100	40%
Time Since Last Pap Smear (of those who underwent)		
Within the last year	60	60%
Last 2-3 years	30	30%
More than 3 years ago	10	10%
Barrier Factor		
Lack of Awareness	88	35%
Fear and Embarrassment	62	25%
Financial Constraints	50	20%
Cultural/Social Stigma	25	10%
Access to Healthcare	25	10%

Table 4: Reasons for Not Undergoing Pap smear Screening (Among Women Who Have Not Had the Test)

Reason for Not Undergoing Screening	Frequency (n=150)	Percentage (%)
Lack of Awareness about the Test	45	30%
Fear of Pain/Discomfort	40	27%
Cultural/Social Stigma	25	17%
Cost of the Test	20	13%
Lack of Healthcare Access	10	7%
No Time	10	7%

Discussion

The findings of this study provide valuable insights into the factors influencing the uptake of Pap smear screening among women attending the OPD at Sheikh Zayed Women Hospital in Larkana. The study identified several key barriers and socio-demographic factors that significantly impacted participation rates in Pap smear screening. The study reveals that participants had a fairly good understanding of cervical cancer with 70% admitting to knowing the ailment (13). But, only 40% were aware of the working relationship between HPV and cervical cancer, this is rather worrisome given the need for such awareness in order to embrace preventive measures like the Pap smear test. Increasing knowledge about cervical cancer also showed that there is a lack of education campaigns that would focus on the actual virus, which can increase the risk of developing cancer. However, 65 % of the participants had heard about the Pap smear test while only 40 % had ever undergone to the procedure, and one-third of the never screened participants had never been screened due to lack of information (14) . This indicates that there is still a gap, whereby although there is awareness, acceptance, and practice of the Pap smear, women seem not to comprehend the role, or importance of the test for early diagnosis of cervical cancer. Gender-specific barriers to screening were multi-faceted and could include (15). About 35% of women said that they never had the test probably due to low health literacy, even though there are health care facilities within the hospital. As a result, there is a prospect for greater concentration and better available information on the Pap smears especially to the women who have not been enlightened on the need to get the test. Further, fear and embarrassment were given by 25% of women as explicit reasons to avoid the test because gynecological examination or Pap smear is culturally embarrassing or women are afraid to face a gynecologist (16). There is likely to be need to seek advice and gain confidence from professional counselors so that these women could come out and attend screening so that the ailment could be detected early. Other reasons included that opinion on ability was also established to be an impediment having negative impacts on tests with 10% of the patients responding that they never went through the test as a result of it. Another determinant was financial, explained by 20% of respondents citing cost as a cause of why they did not undertake the test. This is so especially concerning low-income earners where even the seemingly low price of the test is a discouragement (17). Due to this, the possibility of Pap smear tests being cost and inaccessible to women especially those in the poor community should be made cheaper and easily available for women. In addition, challenges of access to healthcare facilities were also noted and some of the women complained that it became hard for them to access the health facilities that offer the test. It is even worse for the rural people who may lack transport means or financial capability to seek health services (18). The limitations of the study are due to its cross sectional and self-administrative nature due to which recall bias or

socially desirable response bias may exist. Moreover, the study focused only on the hospital in Larkana; therefore, results should be generalized only to this area in Pakistan. The future work should focus on amassing bigger and more heterogeneous samples across the regions, analyze the effect of the current healthcare policies on the frequency of screening.

Conclusion

It is concluded that the uptake of Pap smear screening among women at Sheikh Zayed Women Hospital in Larkana is influenced by factors such as awareness, education, income, and emotional barriers. Despite general awareness of cervical cancer, significant barriers like fear, stigma, and financial constraints hinder participation. Targeted education, financial support, and improved access to screening services are essential to enhance participation and reduce cervical cancer rates.

Declarations

Data Availability statement
All data generated or analyzed during the study are included in the manuscript.
Ethics approval and consent to participate
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Conflict of interest

The authors declared absence of conflict of interest.

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Coordination of collaborative efforts.
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