

Assessment of Cervical Cancer Awareness among Women Attending Gynecological Clinic at Beni-Suif University

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Abstract

Background: Cervical cancer ranks as the 13th most frequent cancer among women in Egypt and the 10th most frequent cancer among women between 15 and 44 years of age.

Aim of Study: The aim is to assess cervical cancer awareness among women attending gynecological clinic at Beni-Suif University Hospital.

Method: A descriptive, exploratory study design was utilized to achieve the aim of the present study. The study sample: A total of 300 women were recruited in the study.

Setting: The study was conducted in Gynecological-Obstetrics Outpatient Clinic of Beni-Suif University Hospital.

Material: Data were collected using: (1) Interviewing structured tool. (2) Cervical Cancer Awareness Measure (Cervical CAM) Toolkit.

Result: Study results revealed that 94.7% of women were unaware related to warning signs of cervical cancer; 94% of women were unaware regarded to risk factors of cervical cancer, 92% of women responded incorrectly regarded to the age most likely women developed cervical cancer, 98% of them were unaware about the availability of screening program while, 98.3% of them unaware about the vaccination program for cervical cancer in Egypt.

Conclusion: The study concluded that women attending gynecological clinic at Beni-Suif University Hospital had lack of awareness regarding to cervical cancer.

Recommendations: The study recommended developing and implementing educational program to increase awareness about cervical cancer among women.

Key Words: Cervical cancer – Awareness – Women.

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Introduction

CERVICAL cancer is the fourth most common cancer in women worldwide, and second for women ages 15 to 44 with over 528,000 new cases and more than 266,000 deaths in 2012 [1]. Cervical cancer is causing 740 deaths per day [2], so cervical cancer considered the second most common cause of cancer death in women [3]. Regarding to statistic is predicted by 2030 with an estimated 443,000 annual deaths, which denote to 67% increase and double the expected maternal mortality from pregnancy complications [4]. About 85% of cervical cancer cases died in Low and Middle Income Countries (LMIC) [5,6]. Egypt has a population of 30.55 million women ages 15 years and older who are at risk of developing cervical cancer, and the current estimates indicate that every year 866 women are diagnosed with cervical cancer and 373 die from the disease [7]. Cervical cancer ranks as the 13th most frequent cancer among women in Egypt and the 10th most frequent cancer among women between 15 and 44 years of age [7].

Cervical cancer causes are unknown but there are some risk factors that are known to increase the risk of developing cervical cancer. These risk factors are included: HPV (Human Papillomavirus), a sexually transmitted virus. There are more than 100 different types of HPVs, at least 13 of them cause cervical cancer; women who have had many sexual partners generally have a higher risk of becoming infected with HPV, which raises their risk of developing cervical cancer as HPV types are always transmitted as a result of sexual contact with an infected individual. Also, Smoking increases the risk of developing many cancers, including

cervical cancer, and a weakened immune system such as in people with AIDS, or transplant recipients taking immunosuppressive medications [8].

Complications of cervical cancer can occur as a side effect of treatment or as the result of advanced cervical cancer, as radiotherapy damaged ovaries and triggered early menopause, also, it causes narrowing of the vagina and painful sexual intercourse. Moreover, lymphoedema, as post-operative complication after lymph nodes removal that disrupt the normal workings lymphatic system. One of the functions of the lymphatic system is to drain away excess fluid from the body's tissue, and a disruption to this process can lead to a build-up of fluid in the tissue known as lymphoedema. In addition, fistula is an uncommon complication that occurs in around 1 in 50 cases of advanced cervical cancer [9].

The management goal is removing or destroying as much of the cancer as possible and sometimes treatment is aimed at relieving symptoms, this is called palliative treatment. The options for treating each patient with cervical cancer depend on the stage of disease (the stage of a cervical cancer describes its size, depth of invasion how far it has grown into the cervix, and how far it has spread); the type of cervical cancer; the patient's desire to have children and the patient's age. Also, management includes surgery, radiation therapy, chemotherapy (chemo), targeted therapy, while, for the earliest stages of cervical cancer, either surgery or radiation combined with chemo may be used, however, for later stages, radiation combined with chemo is usually the main treatment [10].

Significance of the study:

Egypt has a population of 30.55 million women ages 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 866 women are diagnosed with cervical cancer and 373 die from the disease. Cervical cancer ranks as the 13th most frequent cancer among women in Egypt and the 10th 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 Egypt. However, in Northern Africa, the region Egypt belongs to, about 2.7% of women in the general population are estimated to harbour cervical HPV-16/18 infection at a given time, and 78.9% of invasive cervical cancers are attributed to HPVs 16 or 18 [7].

The fact that cervical cancer rarely presents any symptoms in its early stages highlights the importance of regular screening for the disease.

Current recommendations from the US Preventive Services Task Force (USPSTF), which were updated in March 2012, stated that women aged between 21 and 65 years should undergo a Pap test every 3 years. As reported in the literature review the level of awareness regarding cervical cancer and its screening may affect the disease prognosis.

Although, there are many studies in Western countries about women's awareness regarding cervical cancer, there are scattered researches that assess women awareness regarding cervical cancer in Egypt. Therefore, this study was aimed to assess cervical cancer awareness among women attending gynecological clinic at Beni-Suif University Hospital.

Subjects and Methods

Aim of this study:

The aim of this study is to assess cervical cancer awareness among women.

Research question:

What is the awareness level of cervical cancer among women?

Study design:

A descriptive, exploratory study design was adopted to achieve the aim of this study.

Sample:

A total of 300 women who attended gynecological outpatient clinic were recruited according to the following inclusion criteria: Women who can read and write, didn't have mental disabilities, married, in their reproductive age, who were free from any medical diseases, were not diagnosed with cervical cancer and without family history of cervical cancer, multiparous (more than 3 child-births) and had prolonged use of hormonal contraceptive methods (not less than 3 years). Sample size calculated using a power analysis. A power of .90 ($\beta=1-.90=.10$) at alpha .05 (two-sided) with low effect size (0.2) will be used as the significance level. Although the minimum number of 265 subjects will be required by power analysis, the researcher will aim to obtain 300 subjects in this study because ten percent of non-response rate will be expected to be lost from the subjects.

Setting:

The study was conducted at Gynecological-Obstetrics Outpatient Clinic of Beni-Suif University Hospital.

Tools of data collection:

Data were collected by using the following two schedules, A) Structured interviewing tool; B) Cervical Cancer Awareness Measure (Cervical CAM) Toolkit Version 2.1 Updated 09.02.11.

1- *Structured interviewing schedule (Appendix A):* This questionnaire had been developed by the researcher after reviewing related literature, it included 4 main parts:

- 1- Personal background which included data related to age, marital status, educational qualifications, occupation and habits.
- 2- Medical history which included data related to presence of any chronic diseases as heart disease, kidney disease, deep venous thrombosis, respiratory diseases, hypertension, systemic lupus, rheumatoid, liver diseases, urinary tract infection, epilepsy, diabetes mellitus, and thromboembolism.
- 3- Obstetric profile, which included parity.
- 4- Gynecological history which included hormonal contraceptive uses and its duration, any reproductive infections as vaginitis and its duration & recurrence, cervicitis and its duration & recurrence, cervical ulcer and its duration & recurrence, lymphatic tumor or ovarian cyst.

2- *Cervical Cancer Awareness Measure (Cervical CAM) Toolkit Version 2.1 Updated 09.02.11 (Appendix B):* This tool was developed by the University College London, King's College London and Oxford University in 2007-08 (UCL). It was developed to measure cervical cancer awareness and comprised of 8 questions with a total of 29 items:

Scoring:

The closed question of warning signs included 11 signs, these signs were scored from 0-1-or 2 which 0 score indicated that sign not included in the warning signs of cervical cancer, score 1 indicated that the woman do not know if this sign included or not in the warning signs while score 2 indicated that the women agreed that signs were included in the warning signs of cervical cancer. Concerning to the questions related to age at risk of developing cervical cancer included 1 item were given score of 1, 2, 3, 4, or 5. The closed question of risk factors for developing cervical cancer was included 8 items which were given scores of 0 which indicated strongly disagree, 1 which indicated disagree, 2 which indicated not sure, 3 which indicated agree, or 4 which indicated strongly agree. Confidence in detecting cervical cancer

symptom was given scores of 0 which indicated not at all confident, 1 which indicated not very confident, 2 which indicated fairly confident, or 3 which indicated very confident. NHS cervical cancer screening program question was given scores of 0 which indicated that there is no cervical cancer screening program in Egypt, 1 which indicated that the woman do not know, or 2 which indicated that there is cervical cancer screening program in Egypt. An NHS vaccination to protect against cervical cancer was given scores of 0 which indicated that there is no cervical cancer vaccine in Egypt, 1 which indicated that the woman do not know, or 2 which indicated that there is cervical cancer vaccine in Egypt.

The total knowledge score were completed by summing up of the number of correct answers for all questions.

Level of awareness scoring:

Item	Aware score	Unaware score
• Warning signs	12-22	0-11
• Age at risk of developing cervical cancer	5	1-4
• Risk factors	25-40	0-24
• Confidence detecting cervical cancer symptoms	2-3	0-1
• Cancer screening and vaccination program	3-4	0-2

Pilot study:

The pilot study was conducted on ten percent of sample (30) who met the inclusion criteria to assess the feasibility and the clarity of the study tools as well as to determine needed time to complete these tools and any necessary modifications (some questions were omitted) were performed and those subjects were excluded from the study.

Procedure:

Data were collected through a period of 7 months from April 2014 to October 2014. The current research was carried out through: Interviewing and assessment of women's awareness regarding cervical cancer.

Interviewing:

After enrollment each woman was interviewed individually, the researcher introduced herself and explained the purpose of the research to each woman. The following baseline data were collected, personal background, medical history, obstetric profile and gynecological history. The researcher asked the questions in Arabic and recorded the answers in the questionnaire. The interview was

conducted special room to maintain confidentiality and took around 10 minutes to be completed for each woman.

Assessment of women's awareness:

Researchers assessed the women's awareness regarding cervical cancer in relation to warning signs of cervical cancer, age at risk of developing cervical cancer, risk factors of cervical cancer, confidence in detecting cervical cancer symptoms, and NHS cervical cancer screening program & NHS vaccination program.

Ethical consideration:

Primary approval was obtained from the Research Ethics Committee at Faculty of Nursing-Cairo University. As well as, an official permission was obtained from administrative authorities of Beni-Suif University Hospital. After that, each woman informed about the aim of the study and its importance. The researcher emphasized that the participation in the study is voluntary as well as any woman has the right to withdraw at any time from the study. Anonymity and confidentiality were assured through coding the data, and an informed written consent was obtained from the women who met the inclusion criteria and accepted to participate in the study. The final approval was obtained from the Research Ethics Committee at Faculty of Nursing, Cairo University after the completion of the data collection.

Statistical analysis:

Upon completion of data collection the data were scored, tabulated, analyzed by the computer software for Excel Program and the "statistical package for the social science"(SPSS) Version 20.0. Data were presented using descriptive statistics in the form of frequencies and percentages and the arithmetic mean (\bar{X}), and Standard Deviation (SD) for quantitative data. Qualitative variables were compared using chi square (χ^2) and p -value to test association between variables. p -values equal to or less than 0.05 was considered statistically significant and 0.001 or less was considered as highly statistically significant.

Results

The results of the current study are presented in two main sections, section (I) concerned with distribution of women according to their personal backgrounds and section (II) concerned with distribution of women according to cervical cancer awareness.

Section (I): Distribution of women according to their personal backgrounds.

Table (1): Distribution of women according to personal background (n=300).

Variables	N	%
Age in years:		
24-<30	55	18.3
30-<35	601	35.3
35-<40	421	41.3
≥40	51	5
Mean ± SD	33.1±4.09	
Educational level:		
Primary school	97	32.3
Preparatory school	94	31.3
Secondary school	90	30
University	19	6.4
Occupation:		
Housewife	239	79.7
Employed	61	20.3
Smoking:		
Nonsmoker	123	41
Passive Smoker	177	59
Smoking duration	6.99±6.592	
Mean ± SD		
Vaginal deteration:		
No	180	60
Yes	120	40

Table (1) reveals that, (76.6%) of women their age was ranged from 30 to less than 40 years old with mean age of (33.4±4.09). Regarding the educational level, (63.6%) of women had primary and preparatory education while, (6.4%) had university education. Concerning the occupation, (79.7%) of women were housewives, and (59%) were passive smokers with a smoking mean duration of (6.99 ± 6.592). Also, (40%) of them used vaginal detergents.

Table (2): Distribution of women according to their obstetric history (n=300).

Variables	N	(%)
Parity:		
4 children	268	89.4
5 children	27	9
6 children	5	1.6
Mean ± SD	3.62±0.720	
Hormonal contraception duration by years:		
3-5	255	85
6-≥12	45	15
Mean ± SD	4.22±1.266	
Vaginitis:		
No	216	72
Yes	84	28
Vaginitis duration by days:		
4-6	57	67.9
7-≥15	27	32.1
Mean ± SD	1.74±3.005	

Table (2) shows that 89.4% of women had four children with mean parity of 3.62 ± 0.720 , 85% of them used Hormonal Contraception for 3-5 years with mean duration of 4.22 ± 1.266 years, 28% of them had vaginitis, and from those 67.9% had vaginitis duration from 4-6 days.

Section (II): Distribution of women according to cervical cancer awareness.

Table (3): Distribution of women according to their awareness about warning signs of cervical cancer (n=300).

Variables	Not Aware		Aware	
	N	%	N	%
• Do you think vaginal bleeding between periods could be a sign of cervical cancer?	263	87.7	37	12.3
• Do you think persistent lower back pain could be a sign of cervical cancer?	286	95.3	14	4.7
• Do you think a persistent vaginal discharge that smells unpleasant could be a sign of cervical cancer?	252	84.0	48	16.0
• Do you think discomfort or pain during sex could be a sign of cervical cancer?	270	90.0	30	10.0
• Do you think menstrual periods that are heavier or longer than usual could be a sign of cervical cancer?	261	87.0	39	13.0
• Do you think persistent diarrhea could be a sign of cervical cancer?	289	96.3	11	3.7
• Do you think vaginal bleeding after the menopause could be a sign of cervical cancer?	237	79.0	63	21.0
• Do you think persistent pelvic pain could be a sign of cervical cancer?	265	88.3	35	11.7
• Do you think vaginal bleeding during or after sex could be a sign of cervical cancer?	265	88.3	35	11.7
• Do you think blood in the stool or urine could be a sign of cervical cancer?	286	95.3	14	4.7
• Do you think unexplained weight loss could be a sign of cervical cancer?	287	95.7	13	4.3

Table (3) reveals that, (87.7%) of women were unaware regarding to vaginal bleeding between periods could be a sign of cervical cancer. Majority of women (95.3%) were unaware regarding to persistent lower back pain could be a sign of cervical cancer. Concerning persistent unpleasant smelly vaginal discharge as a sign of cervical cancer, (84%) of them were unaware of this sign. While, 90% of them were unaware that pain during sex could be a sign of cervical cancer. More than three-fourth of women (87%) were unaware regarding heavier or longer menstrual periods to be a sign of cervical cancer. Concerning persistent

diarrhea, 96.3% of them were unaware that this sign could be warning of cervical cancer. Also, 79% of women were unaware that vaginal bleeding after menopause could be a sign of cervical cancer, 88.3% of them were unaware that persistent pelvic pain could be a sign of cervical cancer, 88.3% of women were unaware that vaginal bleeding during or after sex could be a sign of cervical cancer. regarding to presence of blood in stool or urine as a sign of cervical cancer, 95.3% of women were unaware of this sign of cervical cancer. Concerning unexplained weight loss, 95.7% of women were unaware that this could be a sign of cervical cancer.

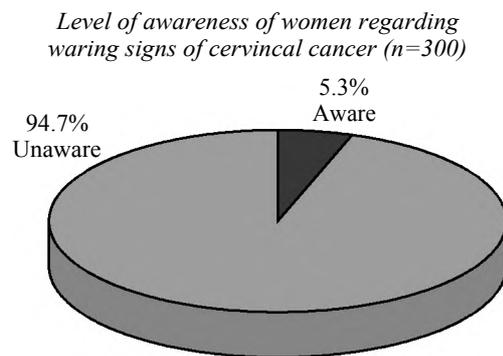


Fig. (1): Distribution of women according to their total level of awareness warning signs of cervical cancer.

Fig. (1): Shows that 94.7% of women were unaware related to warning signs of cervical cancer.

Table (4): Distribution of women according to their awareness about risk factors of cervical cancer (n=300).

Variables	Not Aware		Aware	
	N	%	N	%
• Infection with HPV (human papillomavirus)	220	73.3	80	26.7
• Smoking any cigarettes at all	260	86.7	40	13.3
• Having a weakened immune system	234	78	66	22
• Long term use of the contraceptive pill	267	89	33	11
• Infection with Chlamydia	258	86	42	14
• Starting to have sex at a young age	283	94.3	17	5.7
• Having many children	292	97.3	8	2.7
• going for regular smear (Pap) tests	267	89	33	11

Table (4) reveals that, 73 of women were unaware regarding to infection with human papillomavirus as a risk factor of cervical cancer, 94.3% of women were unaware that starting to have sex at a young age is a risk factor of cervical cancer. Moreover 97.3 of women were unaware regarding to having many children is a risk factor. Concerning not going for regular smear (Pap) factor of cervical cancer.

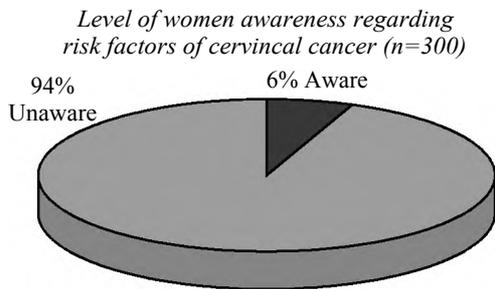


Fig. (2): Distribution of women according to their total awareness level about cervical cancer risk factors.

Fig. (2): Shows that 94% of women were unaware regarding to risk factors of cervical cancer.

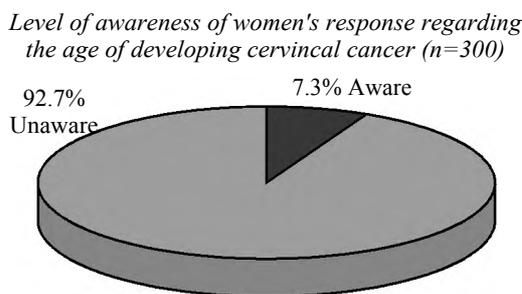


Fig. (3): Women's response according to their awareness about the age of developing cervical cancer.

Fig. (3): Shows that 92.7% of women were responded incorrectly regarding to the age of developing cervical cancer, which indicated that women were unaware of the correct answer about age that women are at risk of developing cervical cancer.

Table (5): Distribution of women awareness regarding to cancer screening programs (n=300).

Variables	Incorrect		Correct	
	N	%	N	%
Screening program	294	98	6	2
Vaccination program	295	98.3	5	1.7

Table (5) shows that, the majority of women responded incorrectly about the availability of screening and vaccination programmes for cervical cancer in Egypt.

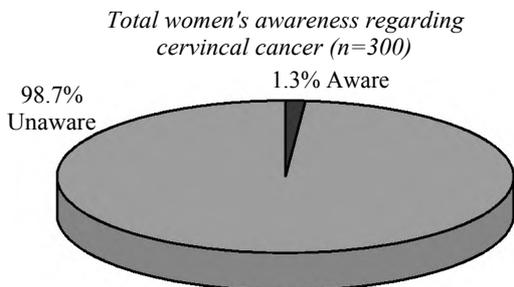


Fig. (4): Distribution of women regarding to total awareness about cervical cancer.

Fig. (4): Shows that, 98.7% of women were unaware regarding to cervical cancer.

Discussion

The aim of the current study was to assess Cervical Cancer awareness among women attending Gynecological Clinic at Beni-Suif University Hospital. The results of the study aimed to answer the research question what is the awareness level of cervical cancer among women.

According to women's awareness about warning signs of cervical cancer, findings of this study illustrated that, more than two-third of the women were unaware about the warning signs of cervical cancer, this finding was in accordance with the study findings of Al-Darwish et al., [16] who carried out study to assess "knowledge about cervical cancer early warning signs and symptoms, risk factors and vaccination among students at a Medical School in Al-Ahsa, Kingdom of Saudi Arabia", they found that the majority of the studied sample were not aware of the early warning signs, symptoms and risk factors about cervical cancer.

In the current study, more than two-third of women were unaware that vaginal bleeding between periods could be a sign of cervical cancer, and this result was contradicted with the study done by Khadka, [17] about "knowledge and awareness about cervical cancer screening and HPV vaccine among females aged 15-49 years in Rukum District of Nepal", they found that most of the study sample were aware that vaginal bleeding between periods could be a sign of cervical cancer.

The findings of this study revealed that more than tenth of women thought that persistent and unpleasant smell vaginal discharge could be a sign of cervical cancer, and this finding was similar with the findings of the study conducted by Bansal, et al., 2015 who found that less than one quarter of the studied sample had knowledge that foul smelling vaginal discharge could be a sign of cervical cancer.

Regarding to women's awareness about warning signs of cervical cancer, findings of this study revealed slightly more than two-third of women were unaware that vaginal bleeding after the menopause could be a warning sign of cervical cancer, this findings was in the same line with the findings of the study done by Khadka, et al., [17] who reported that more than two-third of the studied sample did not have knowledge that post menopausal bleeding may be a sign of cervical cancer.

Concerning to women's awareness about risk factors for cervical cancer, findings of this study revealed that more than two-third of the women were unaware about the risk factors of cervical cancer, this finding was in accordance with the study done by Khadka, et al., [17] who concluded that more than two-third of the studied sample weren't aware of risk factors of cervical cancer. In addition to women's awareness about risk factors of cervical cancer, findings of this study revealed that near two-third of women did not agree that having too many children could be a risk factor to have cervical cancer and this finding was matched with the study findings done by Balogun, et al., [15] who found that only 15% had knowledge that having more than 5 children is a risk factor for cervical cancer.

Moreover, findings of this study revealed that near to two-third of the women unaware that infection with HPV (human papillomavirus) is considered a risk factor to cervical cancer and this result was matched with the study done by Hussain, et al., 2014 who found that near than three quarter of the studied sample had knowledge about HPV infection as risk factor of cervical cancer.

Concerning awareness regarding screening program for cervical cancer, findings of this study showed that, majority of women were unaware of the presence of cervical cancer screening program in Egypt, while almost all women unaware if there is cervical cancer screening program, and this result was supported by the study done by Khadka, et al., [17] who found that most of the studied sample was unaware about cervical cancer screening. However, this result contradicted with the study done by Interis, Anakwenze, Aung and Jolly, 2015, entitled "Increasing Cervical Cancer Awareness and Screening in Jamaica: Effectiveness of a Theory-Based Educational Intervention" found that more than three fifth of the study sample heard and aware about cervical cancer screening.

Regarding to the total awareness about cervical cancer, all of the women had incorrect answers regarding their awareness related to the warning signs, risk factors, and total awareness about cervical cancer, which indicated that they were unaware about cervical cancer [18,19].

Conclusion:

In the light of findings of the current study, it was concluded that 94.7% of women were unaware about warning signs of cervical cancer, 94% of women were unaware regarding to risk factors of

cervical cancer, 92.7% of women responded incorrectly regarding to the age most likely women to develop cervical cancer, and the majority of women were unaware regarding to the availability of screening and vaccination programs for cervical cancer (98% & 98.3% respectively).

Recommendations:

The following are recommended:

- 1- Develop and implement of educational programs to enhance women's awareness about cervical cancer.
- 2- Inform women about the presence of the national program for screening and early detection of cervical cancer through mass media.
- 3- Conduct workshops for maternity nurses to upgrade their knowledge and raise their awareness about cervical cancer (the disease, screening tests, places of treatment, and psycho-social support), to help women with cervical cancer and their families to access the available resources.
- 4- Further studies to examine the effect of cervical cancer structured information program on women's awareness.
- 5- Study the lived experience of the women with cervical cancer using a qualitative phenomenological approach.

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تقييم الوعي بسرطان عنق الرحم بين السيدات اللاتي يترددن على عيادة النساء فى مستشفى بنى سويف الجامعى

الهدف من البحث: يهدف هذا البحث إلى "تقييم الوعي بسرطان عنق الرحم بين السيدات اللاتي يترددن على عيادة النساء فى مستشفى بنى سويف الجامعى".

تصميم البحث: استخدام تصميم الوصفى الإستكشافى ليناسب الغرض من الدراسة.

العينة ومكان البحث: أجريت هذه الدراسة فى عيادة النساء والتوليد بمستشفى بنى سويف الجامعى حيث أن مجموع العينة ٣٠٠ امرأة من اللاتي تنطبق عليهم شروط إختيار العينة.

أدوات البحث: تم تجميع البيانات الخاصة بالدراسة بواسطة إجراء مقابلة شخصية مع السيدات وتتضمن جريئين: الجزء الأول: يشمل أسئلة على البيانات الشخصية، ملف التوليد، التاريخ العائلى المتعلق بسرطان عنق الرحم. والتاريخ الطبى المتعلق بالشكوى من الأمراض المزمنة، الجزء الثانى: مجموعة قياس الوعي بسرطان عنق الرحم.

النتائج: أظهرت نتائج الدراسة أن ٤٩.٧٪ من العينة المدروسة ليس لديهم الوعي بالعلامات التحذيرية المتعلقة بسرطان عنق الرحم بينما كان ٥.٣٪ منهم لديهم الوعي بهذه العلامات. ولكن ٤٩٪ من العينة المدروسة لم تكن على وعى بالعوامل الخطرة المتعلقة بسرطان عنق الرحم، إلا أن ٦٪ منهم كانوا على وعى بهذه العوامل. بالإضافة إلى ذلك كانت هناك علاقة ذات دلالة إحصائية بين المستوى التعليمى للعينة المدروسة والوعي الكلى بسرطان عنق الرحم ($F=3.78, p=0.011$) وكانت هناك علاقة ذات دلالة إحصائية بين المهنة للعينة المدروسة والوعي الكلى بسرطان عنق الرحم ($t=2.501, p=0.014$).

الخلاصة: خلصت الدراسة إلى أن النساء اللواتى يحضرن عيادة أمراض النساء فى مستشفى جامعة بنى سويف تفتقرن إلى الوعي بسرطان عنق الرحم.

التوصيات: أوصت الدراسة فيما يلى:

- وضع وتنفيذ برامج تعليمية لتعزيز وعى المرأة بسرطان عنق الرحم.
- تطوير البرنامج الوطنى للفحص والكشف المبكر عن سرطان عنق الرحم.
- إنشاء مواقع على شبكة الإنترنت تحت إشراف طبي ومراعى لتوفير معلومات عن المرض وفحوصات الفحص وأماكن العلاج والدعم النفسى والإجتماعى.
- بالإضافة إلى ذلك، مساعدة النساء المصابات بسرطان عنق الرحم وعائلاتهن على الوصول إلى الموارد المتاحة.