

Differences between the young and older married women regarding their knowledge and beliefs about Cervical Cancer

Running Title: Women's perspectives of Cervical cancer

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ABSTRACT

Background: Cervical cancer is the fourth most common cancer among women worldwide, and the fourth leading cause of cancer-related deaths globally, with an estimated 569,847 new cases. Cervical cancer ranks as the 13th leading cause of female cancers and is the 10th most common cancer in women aged 15 to 44 years in Egypt with the incidence of new cases 969 diagnosed in 2018. The study aimed to between the young and older married women regarding their knowledge and beliefs about Cervical Cancer. **Subjects and Methods:** A descriptive correlational design used to examine relationships between women's age and their knowledge level about cervical cancer. The study conducted at Woman' health Hospital. The data collected by Awareness of the Cervical Cancer Questionnaire. **Results:** A total of Three hundred and eighty-nine (n=389) married women completed the survey questionnaire. Knowledge level reflected the correct answers were higher among young groups versus inadequate among the older group and revealed statistical significance difference. **Conclusion:** The participants' low knowledge level indicated the urgent need for focus on cervical cancer prevention programs for all age groups and activates the early detection program of cervical cancer to avoid the increase in incidence rate.

Keywords: Differences, Cervical cancer, Knowledge, young, older, women

INTRODUCTION

Cervical cancer is the fourth most common leading cause of cancer-related deaths among women globally, with an estimated 569,847 new cases and 311,365 deaths in 2018 (Bray et al. 2018). There are around 30.55 million women in Egypt aged 15 years and older who are at risk of developing cervical cancer (Bruni et al., 2017). Recently, the incidence of new cases increased to 969 diagnosed in Egypt in 2018 based on the International Agency for Research on Cancer estimation. The age-specific incidence rates of cervical cancer in Egypt reflect individual instructions, adolescents, mothers, practices, newborn care that there are 12 cases registered between and 15-19 years, 19 cases among 20-

24 years, 12 cases among 25-29 years, 2 cases among 30-34 years, and 55 cases among 35-39 years. These statistics ranked cervical cancer in Egypt as the 12th leading cause of female cancer, and the leading deaths among women aged 15 to 44 years. Approximately 631 cervical cancer deaths occur annually in Egypt according to estimates for 2018 (Ferlay et al. 2018).

Cervical cancer is a fatal disease in the late stages. Though, among all female genital tract cancers, it is the only preventable cancer detected at its early stages. The abnormal symptoms such as vaginal bleeding, foul smell discharge, and contact bleeding are recognized as significant signs of cervical cancer, in addition to several women reporting no symptoms or not recognizing it as a

substantial symptom (Heena et al. 2019). Population-based screening with Pap smear is an essential secondary preventive measure for cervical cancer, which leads to a high cure rate among cervical cancer patients (Shah et al. 2012).

To prevent cervical cancer, the co-factors that cause it should be identified since HPV is a crucial cause of cervical cancer; however, it is not enough to cause cervical cancer. Therefore, the health care providers should focus on the other co-factors such as earlier sexual unveiling is a co- a risk factor for HPV infection, though this relationship is still unclear. The sexual and reproductive health behaviors in Egypt include high parity, and long-acting hormonal contraceptives (ICF 2015). Besides, the average age at first sexual interaction for women aged 20-49, and behavioral factors such as cigarette smoking. On the other hand, co-infection factors such as human immunodeficiency viruses, Chlamydia trachomatis, and herpes simplex virus type 2, play an essential role in cervical cancer, as well as other possible factors such as immunosuppression and specific nutritional deficits, genetic and immunological factors (WHO, 2015).

All these screening methods are available for cervical cancer screening, such as cytology, HPV DNA tests, and visual inspection with acetic acid (VIA) as the most effective alternative to cytology-based screening in low-resource settings in Egypt. However, they cannot access the national program of the country, and there is no quality assurance structure and mandatory supervision to monitor the screening process (Giordano et al. 2015). Only individual studies that invited women to attend the screening as participant in these studies, using the pap-smear as the initial screening test that based only on referral from the care provider (Bruni et al. 2019).

Nurses can provide health promotion counseling to patients in their day-to-day practice. They can play a crucial role in health promotion and disease prevention, and they are in an ideal position to provide health education to young girls and women. It is necessary to make the nursing staff aware of

cervical cancer and its prevention to the public (Shah et al. 2012).

Significance of the study

Several years ago, developed countries succeeded in decreasing the incidence of cervical cancer (Adegoke et al. 2012). This is mostly acknowledged by increasing awareness about screening and prevention strategies employed in these countries (Torre et al. 2015, Torre et al. 2017). On the other hand, there is insufficient awareness of the screening strategies applied or not even present in developing countries (Jassim et al. 2018). Therefore, early screening during the precancerous lesion stage decreases the high costs of treatment of cervical cancer (Hawkins et al. 2011).

Moreover, previous studies investigated the factors affecting screening practices of cervical cancer and reported that socio-demographic factors, such as women's age, marital status, education, and beliefs (Bayoumi et al., 2012; Al-Meer et al. 2011). In Egypt, the most affected age for the young cervical cancer group is between and 25-29 years, and older groups among 35-39 years (Ferlay et al. 2018). Thus, knowledge and awareness will help ensure that the disease burden does not increase, especially among those age groups. So, the objectives of this study were to:

- Compare between young and older married women about cervical cancer's knowledge and beliefs.
- Assess the association between age and knowledge level of the participants about cervical cancer.
- Assess the association between age and beliefs of the participants about cervical cancer.

Research question:

- Who has better knowledge regarding cervical cancer screening in young or older married women?

METHODS

Study Design

A descriptive correlational design was used to examine the relationships between women's age and their knowledge level about cervical cancer.

Participants

The inclusion criteria included the target groups of young and older actively married women, aged 18-25 years (young group), and > 25-55 years (old group). The exclusion criteria were not actively married, such as divorced or widowed, in addition to cases that already had cervical cancer.

Setting:

The study was conducted at a gynecology outpatient clinic in the woman's Health Hospital (WHH), which is affiliated with Assiut University and located in Assiut city, Egypt. It is the first specialized hospital for women's health care in Upper Egypt, with a capacity of 300 beds and approximately seven specialized outpatient clinics.

Sample size

Raosoft® was used as a sample size calculator, and the following criteria entered an acceptable margin of error of 5% and a confidence level of 95%, an estimated population size of 3979 per three months and a response distribution of 50%. The recommended sample size was 351 and increased to 398 participants, to avoid withdrawn, including 199 young and 199 older married women who were presented during the data collection period of approximately three months and agreed to participate in the study (Sample Size Calculator by Raosoft, Inc., 2004).

Instruments:

"Awareness of Cervical Cancer Questionnaire" in the English language. The questionnaire was adapted from the cervical cancer awareness measure (CAM) tool kit version 2.1 (2011), and it modified according to the Egyptian cultural values. It includes two main parts: First, personal background such as age, marital status, and educational

qualifications. Second part: knowledge and prevention items regarding cervical cancer presented in three sections.

The 1st section includes five multiple-choice questions regarding knowledge of risk factors that cause cervical cancer scored out of 5 each correct answer = 1 point with total (5 points). The 2nd section includes ten questions (yes, no, I do not know, and in case of "yes" another multiple-choice, answers) each correct answer = 2 points (20 points) and another 1 point for the multiple-choice part with total (12 points). Therefore, the scoring was calculated as Excellent Knowledge (100-86%) scored 37-32, Good (84-70%) scored 31-26, and fair (69-51%) and poor (50% or less) scored less than 19 correct points.

The 3rd section includes 15 questions in the form of a Likert scale and scored as 5 points for Strongly agree (S.A.), 4 points for Agree (A), 3 points for Neutral (N), 2 points for Disagree (D), and 1 point for Strongly Disagree (S.D.) with a total (75 points). Therefore, the scoring was calculated as Excellent Knowledge (100-85%) scored 75-64, Good beliefs (84-70%) scored 63-53, fair beliefs (69-50%) scored 52-38, and poor beliefs (49% or less) scored less than 38 points.

Procedure:

After the approval of the ethical committees of both faculty of nursing and women's health hospitals, the data were collected from June 2017 to September 2017. Based on an interviewing questionnaire, which fill in by the investigator.

Validity and reliability

The questionnaire tested the validity and reliability of the questionnaire, as it was used as a survey tool for Cervical Cancer Awareness Measure (Cervical CAM) Toolkit Version 2.1 Updated 09.02.11. This tool was developed by the University College London, King's College London, and Oxford University in 2007-08 (UCL) Department of Health (2007). The Test-retest reliability over a one-week interval was found to be good, with all correlations above 0.7, item difficulty assessed and most items in the Cervical CAM

were answered correctly by more than 20% and less than 80% of respondents.

Content validity of the tools performed by five experts in (obstetrics, gynecology, gynecological nursing, and medical specialties) who revised the tool items for clarity, comprehensiveness, and applicability. The adjustments were made accordingly, and then the tool was re-considered for the final format and tested.

Content reliability: The “Cronbach’s test” revealed that the tool proved to be reliable at (0.73, and the test reflected 0.81.

The pilot study was conducted on 10% of the total sample to test the feasibility, clarity, and objectivity of the questionnaire before data collection. All 10% of the participants were included in the sample because no changes were made in the questionnaire.

Data Analysis:

Upon completion of data collection, the data tabulated, analyzed by “statistical package for the social science”(SPSS) Version 20.0. descriptive statistics were used in the form of frequencies and percentages and the arithmetic mean (X) and standard deviation (SD) for quantitative data. Inferential statistic t-test used to determine if there is a significant difference between the means of two groups Knowledge level and chi square test for association between participants’ age and cervical cancer beliefs and P-value was considered significant if it was ≤ 0.05 .

Ethical Clearance:

The researcher obtained official approval of the director of "Obstetrics and Gynecology

department in Woman's Health Hospital" and the ethical and research committees of faculty of nursing at Assiut University (6/265) June 2017. In addition, the written consent form was obtained from the women to participate in the current research after an explanation of the study purpose and nature to each woman’s recruitment. The consent form assured the confidentiality of all obtained information and the purpose of using it only for research, and they were free to join or not join in the study.

RESULTS

A total of Three hundred and eighty-nine (n=398) women completed the survey questionnaire. Divided into two groups old and young women include 199 in each group. The participants' ages from 18 to 25 years and mean \pm S.D. were (20.58 \pm 1.0) and min 26 maximum 55 years old and mean \pm SD) = (41.88 \pm 7.6), respectively. Their ages were ranged between (18-43) years old so ≤ 25 years were 50% (n= 199) and > 25 years were 50% (n= 199). 5.0 % (n=20) of the respondents had never had any formal education, 28.1% (n=112) had primary level education, 39.2 % (n=156) had secondary-level education, and 18.9% (n=75) had university-level education. All respondents (100%) were married, and two-thirds (n=293) lived in rural areas of Asyut governorate, and three-quarters (76.64%, n= 269) of the participants thought that their knowledge about cervical cancer was inadequate according to their answers to the questionnaire. In addition to the family history of cervical cancer, the results indicated that 94.5% answered no (n=376), while 5.5% answered yes (n= 22) (See table1).

Table 1. Demographic data of all participants' young and older women.

Variable	Frequency	%
Age (Years)		
Mean \pm S.D.		
<25 years old	199	50.0
>25 years old	199	50.0
Educational level		
Illiterate	20	5.0
Read and write	35	8.8
Primary education	112	28.1
Secondary education	156	39.2
University	75	18.9
Marital status		
Married	398	100
Residence		
Urban	159	39.9
Rural	293	60.1
Knowledge adequacy		
Yes	129	32.4
No	269	76.6
Family history of CC		
Yes	22	5.5
No	376	94.5

CC: Cervical cancer

Knowledge of cervical cancer risk factors

An analysis of the questions on risk factors of cervical cancer provided a knowledge profile of young married women compared with older women. Based on knowledge level, the correct answers were 63.3% (n=124) and 37.8 % (n=45) of the young and older participants, respectively, and the mean knowledge score was divided into (excellent knowledge (0.0%) vs. (0.0) good (4.0%) vs. (1.5%) and fair (60%) vs. (40%) and poor (36%) vs. (58.5). The total mean score was 33.5 \pm 20.2 and 21.7 \pm 18.7 for young and older married women, respectively, and the probability value was significant ($P < 0.001$).

The variance of knowledge about cervical cancer risk factors between young and older married women, according to their correct answers, reflected statistical significance in the following items: the transmission of associated virus with cervical cancer was 24.6 % (n= 49) versus 9.5% (n= 19) older women ($P < 0.03$). Using Pap smear for the diagnosis of cervical cancer, 39.7% (n= 79) and 11.6% (n=23). The required precautions for the prevention of cervical cancer were 33.2 (n= 66) versus 9.5% (n= 19) and ($p < 0.00$). The respondents knew that HPV could live in the skin without causing growth or changes by 8.5% (n= 17) versus 4.5% (n=9) and ($p < 0.00$). Multiple sex partners, one of the cervical cancer risk factors, reflected 32.2% (n=64) versus 24.6% (n= 49) and ($p = 0.00$). Having genital warts 20.1(n= 40) versus 10.5% (n=21) and ($P = 0.04$), and marriage before age 18year-old risk factor reflected 29.6% (n=59) versus 18.6% (n=37) and ($P < 0.04$). In addition to poor nutrition as a risk factor, 25.0% (n=50) and 42.2% (n=84), with statistical significance ($P < 0.002$) (See table 2.)

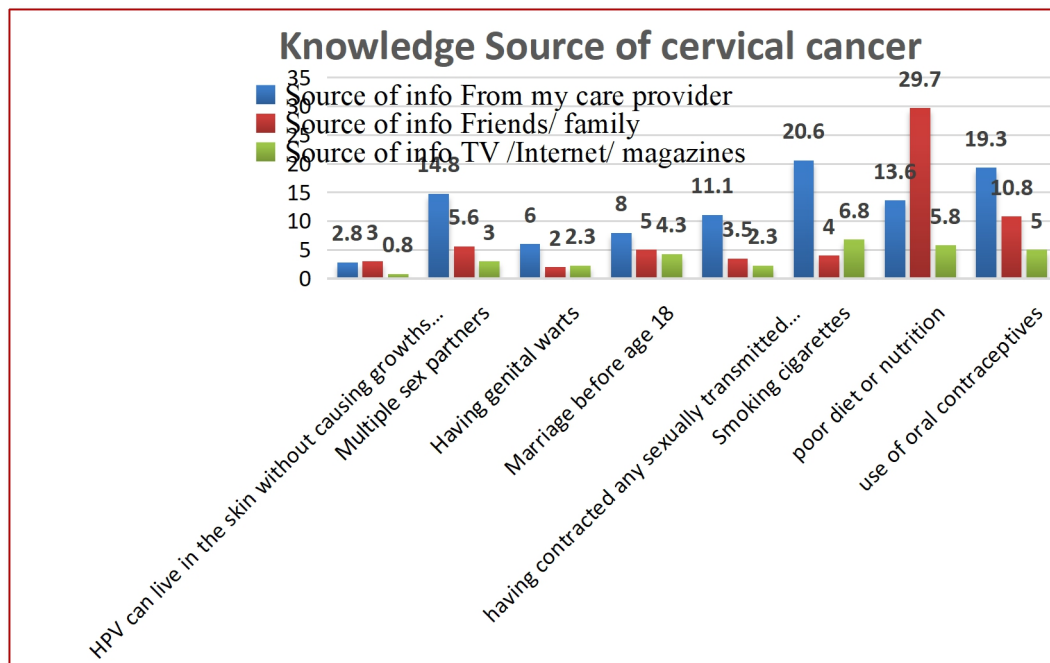
Table 2. Association between young and older women regarding cervical cancer knowledge.

Item	Young women (n=199)				Older women (n=199)				P. value
	Correct		Incorrect		Correct		Incorrect		
	No.	%	No.	%	No.	%	No.	%	
1- The virus associated with cervical cancer transmit by sexual intercourse	49	24.6	150	75.4	19	9.5	180	90.5	0.03*
2- Cervical cancer and pre-cancer cells are associated with the presence of Herpes simplex virus	18	9.0	181	91.0	5	2.5	194	97.5	0.15
3- Pap test diagnose Cervical cancer	79	39.7	120	60.3	23	11.6	176	88.4	0.00*
4- Prevention of cervical cancer require many precautions	66	33.2	133	66.8	19	9.5	180	90.5	0.00*
5- Human papillomavirus (HPV) can cause cervical cancer	12	6.0	187	94.0	2	1.0	198	99.0	0.15
6- HPV can live in the skin without causing growths or changes	17	8.5	182	91.5	9	4.5	190	95.5	0.02*
7- Multiple sex partners(another wife)	64	32.2	135	67.8	49	24.6	150	75.4	0.00*
8- Having genital warts	40	20.1	159	79.9	21	10.5	178	89.5	0.04*
9- Marriage before age 18	59	29.6	140	70.4	37	18.6	162	81.4	0.03*
10- Having contracted any sexually transmitted diseases	62	31.2	137	68.8	35	17.6	164	82.4	0.01*
11- Smoking cigarettes	72	36.2	127	63.8	78	39.2	121	60.8	0.53
12- Poor diet or nutrition	50	25.0	149	75.0	84	42.2	115	57.8	0.00*
13- Use of oral contraceptives	52	26.0	147	74.0	69	34.7	130	65.3	0.09

*statistically significant (P<0.001)

Knowledge source of cervical cancer: The Source of knowledge on cervical cancer is different sources. The most common and essential source of information mentioned by young and older married women was from care providers (physician or nurse) in five items starting with smoking cigarettes, followed using oral contraceptives, multiple sex partners, poor diet or nutrition, contracting any sexually transmitted diseases, and ending by marriage before age 18 (20.6 %, 19.3, 14.8, 11, 1% and 8%). The next source of information was the family and friends individually, and it was the highest level 29.7% regarding information about poor diet or nutrition. However, independent reading and watching TV or the internet were the least sources of information for both groups, but the young married women were higher than older women (see fig. 1).

Figure1. Knowledge Source of cervical cancer among young versus older married women



Common believes in cervical cancer.

The total mean score regarding common beliefs for young married women was (40.87± 7.45) versus older married women was (41.38 ±8.09). The comparison between the two means using the t-Test revealed that the mean difference was 40.87, with a 95% CI of the difference between the lower and upper mean values (39.83 and 41.91%). There was a statistically significant difference ($p < 0.00$).

The comparison between the two groups of participants based on their ages, using the 5-degree Likert scale evaluation [Strongly agree (SA), agree, (A) natural, disagree (DA), and strongly disagree (S.D.)] reflected a significant association in some items and the other items showed no statistically significant association. The response regarding “worry about getting cervical cancer” reflected that young versus older married women reflected statistically significant association at ($p < 0.00$). Regarding "risk for contracting HPV," there was a statistically significant association at ($p < 0.01$). For " chances of getting cervical cancer are high" and "chances of contracting HPV are low “and “HPV is curable with proper medical treatment” reflected a statistically significant association at ($p < 0.04, p < 0.05$ and $p < 0.00$), respectively). (See table 3)

Table 3. Association between women's age and common believes toward cervical cancer.

common beliefs toward cervical cancer		Age				P-value
		Age ≤25		Age > 25		
worry about getting cervical cancer	S.A.	65	32.7	80	40.2	0.00
	A	75	37.7	52	26.1	
	N	49	24.6	50	25.1	
	DA	6	3.0	11	5.5	
	SD	4	2.0	6	3.1	
worry about getting human papillomavirus (HPV)	S.A.	45	22.6	89	44.7	0.44
	A	81	58.3	58	29.1	
	N	50	40.7	36	18.1	
	DA	16	8.0	6	3.1	
	SD	7	3.5	10	5.2	
believe the risk or developing cervical cancer	S.A.	13	6.5	32	16.1	0.132
	A	38	19.1	64	32.2	
	N	69	34.7	46	23.1	
	DA	54	27.1	31	15.6	
	SD	25	12.5	26	13.0	
believe of risk for contracting HPV	SA	17	8.5	39	19.6	0.01
	A	44	22.0	23	11.6	
	N	65	32.7	63	31.7	
	DA	61	30.7	54	27.1	
	SD	12	6.0	20	10.0	
All women have an equal chance of developing cervical cancer; it is beyond control	S.A.	12	6.0	19	9.5	0.32
	A	42	21.1	25	12.5	
	N	65	32.7	69	34.7	
	DA	69	32.7	86	43.2	
	SD	10	5.0	0	0	
Chances of getting cervical cancer are high	S.A.	16	8.0	0	0	0.04
	A	29	14.6	23	11.6	
	N	82	41.2	51	25.6	
	DA	58	29.1	86	44.7	
	SD	15	7.5	38	19.1	
Chances of contracting HPV are low	S.A.	11	5.5	48	24.1	0.05
	A	57	28.6	63	32.7	
	N	87	43.7	52	26.1	
	DA	35	17.6	26	13.1	
	SD	8	4.0	10	5.0	
Have the ability to avoid cervical cancer	S.A.	37	18.5	35	17.6	0.31
	A	64	34.7	53	26.6	
	N	75	37.7	99	49.7	
	DA	14	7.0	12	6.1	
	SD	9	4.5	6	3.0	
Can avoid HPV infection	S.A.	49	24.5	42	21.1	0.15
	A	62	31.2	70	35.2	
	N	60	30.1	61	30.7	
	DA	22	11.1	20	10.0	
	SD	6	3.1	6	3.0	
All women who develop cervical cancer must have their uterus removed	S.A.	19	9.5	8	4.0	0.73
	A	52	26.1	23	11.6	
	N	61	30.7	62	31.1	
	DA	58	29.1	101	50.8	
	SD	10	5.0	5	2.5	

common beliefs toward cervical cancer		Age				P-value
		Age ≤25		Age > 25		
Among the diseases, getting cervical cancer is the most serious	S.A.	25	12.5	40	20.2	0.36
	A	58	29.1	53	26.6	
	N	80	40.2	77	38.7	
	DA	36	18.2	29	14.6	
	SD	0	0	0	0	
Believe HPV is curable with proper medical treatment	S.A.	13	6.5	93	46.7	0.00
	A	74	37.2	13	6.5	
	N	84	42.2	63	31.7	
	DA	26	13.1	19	9.5	
	SD	2	1.0	11	5.5	
Cervical cancer is often curable with early detection and proper medical treatment	S.A.	36	18.0	20	10.1	0.88
	A	63	31.7	89	44.7	
	N	71	35.7	75	37.7	
	DA	29	14.6	15	7.5	
	SD	0	0	0	0	
HPV is a life-threatening disease	S.A.	50	26.1	51	25.6	0.94
	A	82	41.2	82	41.2	
	N	41	20.6	38	19.2	
	DA	16	8.1	18	9.0	
	SD	10	5.0	10	5.0	
No one dies anymore from cervical cancer	S.A.	13	6.5	16	8.2	0.29
	A	38	19.2	38	19.2	
	N	80	40.2	72	36.1	
	DA	55	27.6	51	25.6	
	SD	13	6.5	22	11.1	

DISCUSSION

This study explored the level of knowledge regarding the risk factors of cervical cancer. Moreover, beliefs about getting cervical cancer, then find an association between married women's age and knowledge level as well as common beliefs.

Knowledge level.

Our analysis showed that married women from young versus older women had significantly better knowledge about cervical cancer, which reflected that knowledge level for young is 63.3% versus low Knowledge 37.8 % for older married women. The low level of knowledge matches the Egyptian study by (Al-Rifai and Loney (2017), which was based on secondary data from the Egypt Health Issues Survey in 2015 (El-Zanaty et al., 2015) and indicated that the majority of adult Egyptian women lacked knowledge of the cervical cancer services in Egypt.

This level of knowledge is less than that reported by Donatus et al. in Cameroon

2019, who reported that cervical cancer knowledge was 74.7 %. This difference interpreted by the availability of the screening programs in Cameroon such as Women's Health Programs which includes "the Pap smear, and VILI/VIA" so the women more aware of cervical cancer (Donatus et al. 2019), than Egyptian women as due to unavailable national screening programs in Egypt. On the other hand, concerning young women's answers, it was higher than a study done by Siddharthar et al. in India 2014, and it was close to the respondents of older women who reported that 44.5% of respondents were knowledgeable about cervical cancer. In contrast, a study in Nigeria (Okunowo et al. 2018) reported that the majority of the respondents had poor knowledge of cervical cancer, and only 15.6% had good knowledge regarding the risk factors of cervical cancer, which is less than two respondent groups in our study. This difference may be due to the knowledge scoring system in the Nigeria study, which included two categories (six or more correct answers "considered good" and

less than six answers "considered poor"). In comparison, our study's scoring system consisted of four categories from Excellent to Poor, which means that the first three categories will collect more correct responses under the good answers, and the frequency will increase.

Risk factors of cervical cancer

Regarding the knowledge of cervical cancer risk factors, our study showed that both young and older married women had less knowledge about human papillomavirus (HPV) as one of the risk factors, which is in agreement with the findings of Donatus et al. (2019), which confirmed that HPV was scored the least risk factor but with different percentages. In the same line, a study of (Okunowo et al. 2018) reported that the HPV confirmed by a small proportion of participants as a risk factor of cervical cancer.

Regarding the screening test for cervical cancer, the majority of young married women reflected a correct answer, "the majority in our study refers to the biggest percentage among other knowledge items of cervical cancer." Likewise, Donatus et al. (2019) found that the majority of women knew about screening tests. In our study, the majority were from a young age, which indicates that the more unknowledgeable from, the more vulnerable group age "older age" still needs more effort from health care providers and institutions to access such awareness programs. Similarly, Okunowo et al. (2018) reported that more than half of the participants were aware of the Pap smear test.

However, regarding the low level of knowledge of older women in our study matches with the Egyptian study, which focused on the knowledge of women regarding the Pap-smear test and reported that the majority of participants had no knowledge about (Pap smear) as a cervical screening test (Yakout et al. 2016). Likewise, in the study by (Abiodun et al. 2013) in Ogun State, Nigeria reported inferior knowledge about cervical cancer and screening. This low level of knowledge was due to cervical cancer being an entirely unknown disease in that region and the low level of education of the majority of participants. Furthermore, a study by (Dahiya

et al. 2019) reported low knowledge regarding cervical cancer screening tests.

Source of Knowledge:

The results of this study also revealed that the most common and essential source of information mentioned by young and older married women was from care providers (physicians or nurses). The next source of information was the family and friends, specifically the highest level, 29.7% regarding information on poor diet or nutrition. However, independent reading and watching TV or the internet were the least sources of information for both groups, but the young married women were higher than older women in this source.

Correspondingly, the findings of the health care provider were the common source of information reported by Donatus et al. 2019, in which the most common source was a healthcare worker. Moreover, in the same line, the Ethiopian study by Mitiku and Tefera in 2016 reported that respondents acquired information on cervical cancer from the same source. However, the lower access to reading and media, as reported by the Egyptian study (Al-Rifai & Loney (2017), which indicated that there is low access to different media channels, leading to a lack of knowledge regarding cervical cancer.

Common believes in cervical cancer:

The responses of common belief regarding cervical cancer among young women reflected that women believed "the cervix is the most serious," "Cervical cancer is often curable with proper medical treatment" 41.6 %, 49.7, respectively. In contrast, one-fourth believed in a low survival rate "No one dies anymore from cervical cancer" and 25.7%, respectively. Dissimilar, with a study by Tapera et al. 2019 in Zimbabwe, which was conducted among young women aged 25-year-old or less, reflected that the vast majority of women believed in cervical cancer treatment gives a woman control over her health and the treatment saves lives women while believing that the survival of cervical cancer patients was meager 5%. The difference may be due to the study offered the answers in the form of "yes& no" which is

only two directions, but in our study, answers divided into five directions from strongly agree to disagree strongly. In addition, the study sample only focused on a target age 25-year-old or less, while our study focused on two target ages of 25 years or less and more than 25-year-old.

About 53.2% of young married women believed in cervical cancer prevention or avoidance, while the older was 67.3 more than younger women. This indicates that both age groups were keen to avoid this disease. Similarly, the lower percentage of 12.2% reported in (Varughese et al. 2016) shows that half of the women had no formal education, while our participant was only five percent educated.

Strengths:

The target population of participants became more aware of cervical cancer due to brief information offered individually to each participant regarding the questionnaire information.

Limitations:

This study was a survey only to discover the level of knowledge, but if it was an educational program, the impact would be more effective.

CONCLUSION

The study reveals a low level of cervical cancer knowledge among women regarding risk factors and prevention. A much lower level of knowledge about cervical cancer was found among older married women. In addition, the age groups reflect a statistically significant association with knowledge level. The young women are characterized by more education and more knowledge, while the older target needs more focus due to their lower level of knowledge regarding cervical cancer.

Recommendations

- Use media channels, and TV shows increased awareness regarding cervical cancer to improve among all reproductive age groups.

- Future studies should focus on the activation of educational programs for the early detection of cervical cancer.

Acknowledgments

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Conflict of Interest

The Author(s) declare(s) that there is no conflict of interest.

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