

## Evaluation of an Educational Program Regarding Cancer Cervix for Health Care Workers in Family Health Facilities

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### Abstract:

**Background:** Cervical cancer is second most common women cancer in the world. Screening can reduce incidence and mortality by 80%. Poor knowledge and negative attitude towards cervical cancer screening methods among health care workers can pose substantial barriers to cervical cancer control program in Egypt and developing countries. **Objective:** was to evaluate the effect of an educational program on knowledge and attitude of health care workers regarding cervical cancer and its screening.

**Methods:** An intervention study (by application of an educational program) was conducted for 333 health care workers in family health facilities in Al Mahalla Al Kobra district, Gharbiya governorate in 2018. An informed written consent was obtained from each participant and a structured questionnaire which included three parts was applied to assess general characteristics of HCWs, knowledge and attitude about cervical cancer. In addition, a health education program was conducted for improving their knowledge and attitude. Post-test was conducted after 3 months for them. **Results:** About 45% of HCWs aged between 30-39 years old with mean  $\pm$ SD (38.51 $\pm$ 8.6) there was a highly significant difference between HCWs knowledge and attitude pre and post-intervention by the educational program, whereas, 20.1% of them had a good knowledge score pre-intervention improved to be 43.5% post-intervention. Also there was significant improvement in their attitude, as positive attitude pre-intervention was 40.2 % increased to be 94.3% post-intervention.

**Conclusion:** The present study revealed that applied educational program regarding cancer cervix was successful in enhancing knowledge & improving attitude of HCWs regarding cervical cancer and its screening.

**Keywords:** Cervical cancer, Egypt, Health Care Workers, Screening

### Introduction:

Cervical cancer is the second 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. If detected early, cervical cancer is one of the most successfully treatable cancers.<sup>(1)</sup>

In the United States, the cervical cancer death rate declined by more than 50%

over the last 30 years. This is thought to be mainly due to the effectiveness of screening with the Pap test.<sup>(2)</sup>

Egypt has a population of 30.55 millions 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

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cancer among women between 15 and 44 years of age.<sup>(3)</sup>

In Egypt 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.<sup>(3)</sup>

Carcinoma of the cervix is a disease of sexually active women and is attributed to infection with specific high-risk strains of human papilloma virus (HPV). Screening has been proven to reduce the incidence and mortality from cervical cancer up to 80% in developed countries.<sup>(2)</sup> Regular (PAP) smear screening has reduced the incidence of mortality from cervical cancer, therefore this test is recommended for all sexually active females worldwide.<sup>(4)</sup>

Risk factors for cancer cervix include: earlier onset of sexual activity, multiple partners, cigarette smoking, and immunosuppression.<sup>(5)</sup> Primary prevention of cervical cancer: is possible through vaccination against HPV and healthy lifestyles such as use of condoms and reduction of sexual partners.<sup>(6)</sup>

Family physicians are well-trained to provide comprehensive care to cancer patients because of their accessibility in the community and their relationships with

patients, particularly their knowledge of the personal history, social circumstances, and comorbidities of those patients.<sup>(7)</sup>

The female health care worker plays important roles as a health educator and a promoter. Therefore, unsatisfactory knowledge and low compliance with screening recommendations may lead to negative impact on community in undergoing a Pap smear.<sup>(8)</sup> The aim of this study was to evaluate the effect of an educational program on knowledge and attitude of health care workers regarding cervical cancer and its screening.

#### **Subject and method:**

**Research design:** This study was conducted in two phases; First phase was a cross sectional study followed by application of an educational program about cancer cervix and its screening as a second phase of the study.

**Study Setting and its time:** The study was carried out in Gharbiya Governorate which selected by simple random sampling technique. Gharbiya Governorate includes 8 districts. Almahalla Al Kobra district was selected by the same sampling technique during the period from 1st of January 2018 to end of February 2019. From a list of 56 family health facilities distributed in Al Mahalla Al-Kubra district, a number of 28 family health

facilities (centers & units) have been randomly chosen.

**Population and sample:** Target population were physicians (General practitioner, Family medicine resident, Family medicine specialist and Consultant.), Rural Pioneers Rayeda Rifeya and Nurses including (University & Secondary education) who provide women health care. On the basis of past review of the literature <sup>(9)</sup> which found that 58.9% of the HCWs had adequate knowledge on cervical cancer and total population of (2084) who provide women health care. The sample size had been calculated using the following equation:  $N = (t^2 \times p(1-p)) \div m^2$ . Confidence level at 95% (standard value of 1.96); the sample size was 316 and increased to be 333 health care workers to avoid drop out. The sample size was selected by using simple random sampling technique. There was no drop out.

**Study variables:** Main study variables were:

- Independent variables included: age, sex, marital status, education level, profession and years of experience.
- Dependent variables included: Knowledge & Attitude of the participants.

**Tools for data collection and procedure:**

Tools included: A questionnaire and an educational program.

**A- Self-administered structured validated questionnaire** was provided for participants who were asked to fill it individually.

The time process for administration of the questionnaire took 20-30 minutes on average and all complete questionnaires were returned directly to the investigators. The questionnaire consisted mainly of close-ended question.

The questionnaire composed of three sections: The first section included socio-demographic information of the participants such as; age, sex, marital status, education level, profession, years of experience and working hours per week. The second section involved questions to detect their knowledge about cervical cancer. The third section was to assess their attitude regarding cancer cervix screening.

The questions which assess the knowledge were 23 questions which scored as follows: 0 → for wrong answer. 1 → for right answer.

According to Kress et al., 2015. The overall knowledge score was calculated based on the number of questions answered correctly:

- Good knowledge when total score  $\geq 75$  %.
- An average knowledge when total score 50 %: 74 %.
- Poor knowledge when total score  $< 50$  %.

The questions which assessed attitude were 14 questions which scored as follows: 0 → for negative attitude. 1 → for positive attitude.

According to Ehiemere *et al.*, 2015<sup>(10)</sup> the overall attitude score was calculated based on the number of questions answered correctly:

- Positive attitude if total score  $\geq 50\%$ .
- Negative attitude if total score  $< 50\%$ .

Validity of the questionnaire was tested by being submitted to a panel of 3 experts to test its validity. The experts were professors in Family medicine, Community medicine, Obstetrics / Gynecology medicine.

The preliminary items were revised by the experts to determine whether the items were relevant for assessment. The expert were asked to evaluate individual items in relation to its relevance and appropriateness then rate items on a 4 point scale as the following:

- 4 Adequate (simple, relevant & clear)
- 3 Adequate but needs minor revision.
- 2 Needs major modification.
- 1 Not so adequate (could be omitted)

Content validity index (CVI) :Percentage of total item rated by experts as either 3 or 4. The score of  $\geq 80\%$  is generally considered to have a good validity Scilling *et al.*, 2007.<sup>(11)</sup> CVI of the designed questionnaire was calculated and it was 95%.

Reliability of the questionnaire was calculated by SPSS version 20 using Cronbach's alpha which was ( $r = 0.8$ ). Hence the questionnaire is reliable.

**B- An educational program** aimed to improve the health care workers knowledge and attitude regarding cervical cancer and its screening.

Main items of the program were: definition, prevalence, risk factors, etiology and early signs of cancer cervix. Also it involved evidence about role of cancer cervix screening in early detection of cancer cervix, age to begin, year's interval and when to stop screening, role of health workers in early detection and referral of suspected woman also their role in rising community awareness regarding importance of cancer cervix screening. The educational program was designed by reviewing different evidence based sources as (Funston *et al.*, 2018),<sup>(12)</sup> (Australian institute of health and welfare, 2018)<sup>(13)</sup> & (Rifai & Loney, 2017).<sup>(3)</sup>

Methods of teaching were lectures, group discussion and demonstration with use of visual aids. It includes: Booklet & Colored posters.

- **A pilot study** was undergone in context of time frame one month before beginning of the study through which the study was

conducted for 30 health care providers in the setting of the study and through this pilot study the questionnaire was pretested and time needed for completing its filling was determined, also educational program applied and assessed regarding educational material, its duration and place of its implementation.

**Procedure of the study:** Health care providers who included in the study were first interviewed by the researcher and their knowledge and attitude towards cervical cancer and its screening were assessed through filling previously designed questionnaire. Then, HCWs gathered by end of the day in family health club and the educational program was applied for them in groups. Each group included nearly 5 to 10 HCWs and takes nearly 60 minutes.

- Evaluation of the program:

Three months later, posttest was applied for the participants to evaluate their knowledge & attitude using the same pretest questionnaire and evaluated according to the same method of scoring that was used before application of the program.

**Data management:** Statistical presentation and analysis of the present study was conducted with SPSS V. 20. Data was expressed into two phases:

### I- Descriptive:

- 1- Mean value and standard deviation [SD]: For quantitative data.
- 2- Frequency and percentage for qualitative data. Figure (Pie chart) was designed by using Microsoft excel 2010

### II- Analytic: which include the following tests:

- **Chi-square test ( $\chi^2$ ):** for comparison between independent categorical (qualitative) variables normally distributed.
- **MC Nemar test:** for paired nominal data (dichotomous) dependent variable.

P value <0.05 was considered statistically significant.

P value <0.001 was considered statistically highly significant.

**Ethical considerations:** In accordance with the Declaration of Helsinki, the study was approved by the ethical committee of the faculty of medicine, Menoufia University. An official permission letter was obtained from the authorities and directed to health administration in Al-Mahalla Al-Kobra district. All participants were volunteers. An informed written consent was taken from each health care worker in the selected family

health facilities after complete explanation of the purpose of this study and assuring confidentiality.

### Results:

The mean age of the studied group was (38.51±8.6) years old, ranging from 21 to 58 years. About three quarters of the participants were females (75.4%). The majority of the participants were married (88.6%). About half of the participants were secondary educated (56.5%). Mean of experience years of the studied group was (16.87± 9.6), with the majority (71.5%) had work experience years >10 years. lastly mean of working hours / week was (37.84± 5.4) (Table 1).

The present study showed that the major source of information regarding cervical cancer screening were: Previous background from college education (31.2%), From attending training courses (15.6%), Internet (13.5%) , reading books (12.6%), then lastly mixed source of information (27.0%) (Figure1).

There were remarkable improvement in participant's levels of knowledge about cancer cervix (etiology, risk factors, prevalence and screening) after application of educational program in comparison to before application of the program (P <0.001), as

knowledge regarding etiology increased from 26.4% to 48.0%. Knowledge regarding risk factors increased from 15.0% to 39.6%. Knowledge regarding prevalence increased from 40.2%to 53.8%. Knowledge regarding screening increased from 24.3%to 64.9%. Overall good and average knowledge scores pre-intervention were 20.1% & 30.9% while post-intervention increased to 43.5% & 32.7% respectively (Table 2).

There was a highly statistically significant difference between attitude of the studied group about screening of cancer cervix pre and post intervention by the educational program. Positive attitude pre-intervention 40.2 % increased to 94.3% post intervention (P <0.001) (Table 3).

Overall knowledge score was highly significantly affected by their job (P <0.001), being poor among Raeda Rifeya (73.8%) and good among Family medicine consultants (83.3%). Knowledge score among HCWs was highly statistically significantly affected by age and experience years (P <0.001), being higher (46.9%) among younger participants <30 years old and HCWs with experience years ≤5 years (63.9%). In relation to gender , social status and education : Knowledge was statistically significant higher among un married (44.7%), men (63.9 %) and HCWs

with postgraduate education (68.3%) ( $P < 0.001$ ) (**Table 4**).

There were highly statistical significant differences in attitude of the studied group in relation to age, experience years, job & education level ( $P < 0.001$ ) as positive attitude was higher among younger age HCWs, who have experience years less than five years, family physician doctors (resident & consultant) and highly educated HCWs. There was a statistical significant difference in attitude among the studied group as regards their marital status ( $P$  Value was 0.002) (**Table 5**).

#### **Discussion:**

This study aimed to assess effect of an educational program on knowledge and attitude of health care workers regarding cervical cancer and its screening. Regarding personal characteristics of the studied group, in this study majority of the respondents were midwives (38.4%) and nurses (17.4%). It agreed with a Nigerian study was done by Ehiemere *et al.*, 2015 which revealed that majority of the respondents were nurses (66.5%)<sup>(10)</sup>. Similarity of both results may be due to increased number of nursing in health facilities in general. The current study revealed that female sex was more than three quarters of the participants (75.4%). This

finding agreed with results of studies were done in Kenya by Kieti, 2016 and in Ethiopia by Kress *et al.*, 2015 which reported that majority of the nurses were females (86% & 65%) respectively. This is because nursing profession is occupied by women more than men all over the world<sup>(14)</sup> <sup>(9)</sup>.

Regarding Source of information about cervical cancer and its screening, the present study showed that the major sources of information regarding cervical cancer screening were: Previous background from college education (31.2%), from attending training courses on screening (15.6%), Internet (13.5%), reading books (12.6%), and then lastly mixed source of information (27.0%).

The result agreed with results of a study conducted in Nigeria by Biobaku *et al.*, 2015 which revealed that majority of the respondents (73.8%; 71.4%) detailed formal lectures during training and seminars respectively. Other sources of information were work exposure (70.0%), reading medical books (69.0%) media (55.7%) and the internet (48.1%).<sup>(15)</sup>

It also agreed with a study conducted in India by Kosambiya *et al.*, 2018 which concluded that major source of information for cervical cancer among female health care

workers were research related to nursing (96%).<sup>(16)</sup>

The results disagreed with a study conducted by Mali & Mali, 2014 in India which reported that (63.6%) of the participants gain their information from work experience<sup>(17)</sup>. It was also in controversy with results of a study that was conducted in India by Pegu *et al.*, 2017 which revealed that majority (73.5%) of respondents got their information from media followed by from books (11.8%).<sup>(18)</sup>

It also disagreed with a study conducted in Hong Kong by Chiang *et al.*, 2016 who found that the main source of information was television (around 75%), followed by the internet and newspapers /magazines (all slightly more than 40%).<sup>(19)</sup>

Regarding comparison between knowledge score of the participants before and after application of educational program, The current study showed that there were remarkable improvement in participant's levels of knowledge about cancer cervix (etiology, risk factors, prevalence and screening) after application of educational session in comparison to pre-application of the session. This result approximated findings were reported by Abo-Lela *et al.*, 2017 in Egypt which revealed that there was

significant improvement of nurse's knowledge about cervical cancer whereas their knowledge improved from 21.8% pre intervention to 91.8% post intervention.<sup>(20)</sup>

Also this result was in line with results of an Indian study conducted by Poonam *et al.*, 2012 on nursing students who found that nearly a quarter of nurses were aware of symptoms of cervical cancer in pretest are significantly improved in post-test.<sup>(21)</sup>

The current study also agreed with studies conducted by Biobaku *et al.*, 2015 & Mali, 2014 which were performed in Nigeria & India respectively and reported that majority of studied group had poor knowledge about cervical cancer in pre intervention (58%) & (20%) respectively and the knowledge was relatively better and the scores were also improved in post-intervention (98.9%) & (51.2%) respectively.<sup>(15) (17)</sup>

Regarding comparison between attitude of the participants before and after application of educational session, Positive attitude regarding screening of cancer cervix was significantly improved after application of educational program. Positive attitude before session (77.8%) increased to be (94.3%) after the session. This result was in line with a study conducted in Kerala by Mary & Kundapur, 2018 which revealed that there

was significant difference of attitude score before and after teaching program as 14% have moderate attitude, 42 % have good attitude before application of teaching program whereas 30% have moderate attitude and 70% have good attitude after the program<sup>(22)</sup>. Also it was supported by results of an Egyptian study conducted by Said et al., 2018 which stated that 0.0% of the studied women have positive attitude to pre intervention meanwhile, after intervention 30.8% of them have positive attitude.<sup>(23)</sup>

Regarding relationship between knowledge and personal characteristics, current study showed that knowledge score among HCWs was highly statistically significantly affected by age and experience years, being higher among younger participants <30 years old and HCWs with experience years  $\leq$ 5 years.

This result was in agreement with result which was reported by Ramathuba & Ngambi, 2018 in South Africa which showed that knowledge about cervical cancer is fairly and negatively related to the age range of respondents. As the age range increased, the knowledge about cervical cancer decreased.<sup>(24)</sup>

The current study revealed that the level of overall knowledge score of studied group is highly significantly affected by their

job ( $P < 0.001$ ) being poor among raeda rifeya and midwives (73.8% & 66.4%) respectively and well among family medicine consultants (83.3%). This result was in line with a study done by Sudharshini et al., 2013 on female HCWs in India and showed that knowledge about cervical cancer screening was good among medical officers and sector health nurses than other professions. This could be because of their educational status and the long duration of service in the health system.<sup>(23)</sup>

**Limitations of the study:** The KA survey was conducted among health service workers of some family health facilities hence, the findings do not reflect the level of knowledge, and attitudes of health service workers working in other health institutions. Some HCWs refused to participate in the study. Others were so busy to have time to fill the questionnaire. There wasn't suitable place for the educational session in some units. majority of HCWs refused to attend the session as they were so busy to have an hour during work time, it was overcome through making each session included nearly 5 to 10 HCWs who were not busy at the time of the session in order to facilitate their attendance to the sessions and to achieve their work duties.

**Conclusion:** The present study revealed that applied educational program regarding cancer cervix was successful in enhancing knowledge & improving attitude of HCWs regarding cervical cancer and its screening. So we recommend continuous educational training programs for nurses and medical students to increase their awareness about cervical cancer.

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**Table (1): Socio-demographic data of the participants**

Item	Frequency N=333	Percentage %
<b>Age :</b>	<b>Mean ±SD</b>	<b>(38.51±8.595)</b>
• <30	49	14.7%
• 30-39	149	44.7%
• ≥40	135	40.5%
<b>Sex</b>		
• Male	72	21.6%
• Female	261	78.4%
<b>Education level</b>		
• secondary	188	56.5%
• University	104	31.2%
• postgraduate	41	13.3%
<b>Marital status</b>		
• Single	38	11.4%
• Married	295	88.6%
<b>Profession</b>		
• Raeda ryfya	61	18.3%
• Midwife	128	38.4%
• Nurse	58	17.4%
• GP	9	2.7%
• FP resident	30	9.0%
• FP specialist	35	10.5%
• FP consultant	12	3.6%
<b>Experience years</b>	<b>16.87± 9.59</b>	
• ≤5 years	36	10.8%
• 6-10 years	59	17.7%
• >10 years	238	71.5%
<b>Working hours / week</b>	<b>37.84± 5.37</b>	

**Table (2): Comparison between knowledge of the participants before and after application of educational program**

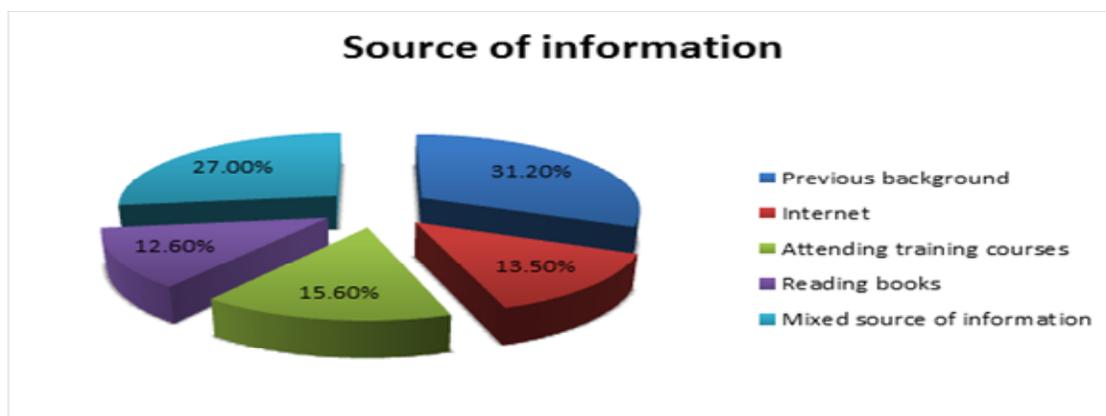
Overall knowledge Score	Pre-test		Post-test		X <sup>2</sup>	P value
	N.333	%	N. 333	%		
<b>Good</b>	67	20.1%	145	43.5%	<b>58.25</b>	<b>&lt;0.001**</b>
<b>Average</b>	103	30.9%	109	32.7%		
<b>Poor</b>	163	48.9%	79	23.7%		
<b>knowledge Score regarding etiology</b>						
<b>Good</b>	89	26.4%	160	48.0%		
<b>Average</b>	62	18.4%	135	40.5%		
<b>Poor</b>	182	54.0%	38	11.4%		
<b>knowledge Score regarding risk factors</b>					<b>214.02</b>	<b>&lt;0.001**</b>
<b>Good</b>	50	15.0%	132	39.6%		
<b>Average</b>	73	21.9%	172	51.7%		
<b>Poor</b>	210	63.1%	29	39.6%		
<b>knowledge Score regarding prevalence</b>					<b>73.59</b>	<b>&lt;0.001**</b>
<b>Good</b>	134	40.2%	179	53.8%		
<b>Average</b>	71	21.3%	120	36.0%		
<b>Poor</b>	128	38.4%	34	10.2%		
<b>knowledge Score regarding screening</b>					<b>202.58</b>	<b>&lt;0.001**</b>
<b>Good</b>	82	24.3%	216	64.9%		
<b>Average</b>	58	17.2%	94	28.2%		
<b>Poor</b>	193	57.3%	23	6.9 %		

**\*\*Highly statistically significant.**

**Table (3): Comparison between attitude of the participants before and after application of educational program**

Attitude Score	Pre-intervention		Post-intervention		MC Nemar Test	P value
	N.	%	N	%		
<b>Positive</b>	134	40.2%	314	94.3%	-----	<0.001**
<b>Negative</b>	199	59.8%	19	5.7%		

\*\* Highly statistical significant



**Figure (1): Shows Source of information about cervical cancer screening**

**Table (4): Relation between overall knowledge score and some personal characteristics of the participants before application the program**

	Poor K score		Average K score		Good K score		Total		X <sup>2</sup>	P value
	N=163	%	N=103	%	N=67	%	N=333	%		
<b>Job :</b>									222.6	<0.001**
• Raeda Rifeya	45	73.8%	16	26.2%	0	0.0%	61	18.3%		
• Midwife	85	66.4%	38	29.7%	5	3.9%	128	38.4%		
• Nurse	33	56.9%	25	43.1%	0	0.0%	58	17.4%		
• GP	0	0.0%	2	22.2%	7	77.8%	9	2.7%		
• FM resident	0	0.0%	7	23.3%	23	76.7%	30	9.0%		
• FM specialty	0	0.0%	13	37.1%	22	62.9%	35	10.5%		
• Consultant	0	0.0%	2	16.7%	10	83.3%	12	3.6%		
<b>Age group:</b>									32.5	<0.001**
• <30	13	26.5%	13	26.5%	23	46.9%	49	14.7%		
• 30-39	70	46.9%	49	32.9%	30	20.1%	149	44.7%		
• ≥40	80	59.3%	41	30.4%	14	10.4%	135	40.5%		
<b>Exp. years</b>									68.9	<0.001**
• ≤5 years	4	11.1%	9	25%	23	63.9%	36	10.8%		
• 6 to 10 years	19	32.2%	21	35.6%	19	32.2%	59	17.7%		
• >10 years	140	58.8%	73	30.7%	25	10.5%	238	71.5%		
<b>Social status</b>									18.5	<0.001**
• Married	154	52.2%	91	30.8%	50	16.9%	295	88.6%		
• Unmarried	9	23.7%	12	31.6%	17	44.7%	38	11.4%		
<b>Gender</b>									124.1	<0.001**
• Men	5	6.9%	21	29.2%	46	63.9%	72	21.6%		
• Women	158	60.5%	82	31.4%	21	8.1%	261	78.4%		
<b>Education</b>									124.3	<0.001**
• Secondary	129	68.6%	54	28.7%	5	2.7%	188	56.5%		
• University	33	31.7%	37	35.6%	34	32.7%	104	31.2%		
• Postgraduate	1	2.4%	12	29.3%	28	68.3%	41	13.3%		

**\*\*Highly statistically significant.**

**Table (5): Relation between attitude toward screening of cancer cervix and some characteristics of the participants before application the program**

Score	Positive (N=134)		Negative (N=199)		Total N=333 %		X2	P value
<b>Gender</b>	57	79.2%		20.8%	72	21.6%	56	<0.001* *
• Men			15					
• Women	78	29.9%	183	70.1%	261	78.4%		
<b>Age group:</b>	32	65.3%	17	34.7%	49	14.7%	29.1	<0.001* *
• <30								
• 30-39	69	46.3 %	80	53.7%	149	44.7%		
• ≥40	33	24.4%	102	75.6%	135	40.5%		
<b>Experience years:</b>		77.8%		22.2%		10.8%	32.3	<0.001**
• ≤5	28		8		36			
• 6-10	31	52.5%	28	47.5%	59	17.7%		
• >10	75	31.5%	163	68.5%	238	71.5%		
<b>Job :</b>	26	42.6%	35	57.4%		18.3%	120.8	<0.001**
• Raeda Rifeya					61			
• Midwife	13	10.2%	115	89.8%	128	38.4%		
• Nurse	22	37.9%	36	62.1%	58	17.4%		
• GP	7	77.8%	2	22.2%	9	2.7%		
• FM resident	27	90.0%	3	10.0%	30	9.0%		
• FM specialty	28	80.0%	7	20.0%	35	10.5%		
• Consultant	11	91.7%	1	8.3%	12	3.6%		
<b>Social status</b>				62.7%		88.6%	9.4	0.002*
• Married	110	37.3%	185		295			
• Unmarried	24	63.2%	14	36.8%	38	11.4%		
<b>Education</b>	39	20.7%	149	79.3%	188	56.5%	77.6	<0.001**
• Secondary								
• University	60	57.7%	44	42.3%	104	31.2%		
• Postgraduate	35	85.4%	6	14.6%	41	13.3%		

\* Statistically significant.

\*\* Highly statistically significant

## الملخص العربي

### تقييم برنامج تعليمي بشأن سرطان عنق الرحم للعاملين في مجال الرعاية الصحية في مرافق صحة الأسرة

صفا حمدي القلش, أسامة علي الكيلاني , أمل يحيى شمس الدين

**الخلفية:** سرطان عنق الرحم هو ثاني أكثر أنواع سرطان النساء شيوعاً في العالم. يمكن للفحص أن يقلل من نسبة الإصابة والوفيات بنسبة 80%. يمكن أن يشكل ضعف المعرفة والموقف السلبي تجاه طرق الكشف عن سرطان عنق الرحم بين العاملين في مجال الرعاية الصحية حواجز كبيرة أمام برنامج مكافحة سرطان عنق الرحم في مصر والبلدان النامية.

**الهدف:** تم تقييم تأثير برنامج تعليمي على معرفة وموقف العاملين في مجال الرعاية الصحية فيما يتعلق بسرطان عنق الرحم وفحصه.

**المشاركين وطرق البحث:** أجريت دراسة تدخلية للعاملين في مجال الرعاية الصحية 333 في مرافق صحة الأسرة في منطقة المحلة الكبرى ، محافظة الغربية في عام 2018. تم الحصول على موافقة خطية مستنيرة من كل مشارك وتم تطبيق استبيان منظم يتضمن ثلاثة أجزاء لتقييم الخصائص العامة للعاملين في مجال الرعاية الصحية ، المعرفة والموقف من سرطان عنق الرحم. بالإضافة إلى ذلك ، تم إجراء برنامج للتثقيف الصحي لتحسين معارفهم وموقفهم. وتم إجراء اختبار بعدي لهم بعد 3 أشهر .

**النتائج:** 44.7% من المشاركين كانوا نساء العاملات في الفئة العمرية ما بين 30-39 سنة مع متوسط  $\pm$  انحراف معياري ( 8.6 ، حيث كان 20.1% منهم لديهم درجة معرفة جيدة قبل التدخل لتصبح 43.5% بعد التدخل. كما كان هناك تحسن كبير في موقفهم ، حيث ارتفع معدل الاتجاه الإيجابي لهم من 40.2% ليصبح 94.3% بعد التدخل.

**الخلاصة:** كشفت الدراسة الحالية أن البرنامج التعليمي المطبق بشأن سرطان عنق الرحم كان ناجحاً في تعزيز المعرفة وتحسين موقف العاملين في مجال الرعاية الصحية تجاه سرطان عنق الرحم وفحصه. لذلك نوصي بمواصلة برامج التدريب التعليمي للمرضيين وطلاب الطب لزيادة وعيهم بسرطان عنق الرحم.