Effect of Guideline on Early Detection of Cervical Cancer among High Risk Group Women

Wafaa Gomaa Abdallah*, Mona Ahmed El-Shiekh**, Yasser Abou Taleb**, Hanan Abd El-Fatah**, Sahar Mossa Soliman**

Maternity & Gynecological Nursing Faculty of Nursing-Ain Shams University.

Abstract

The aim of the current study is to evaluate the effect of guidelines on early detection of cervical cancer among high risk group women. A Quasi experimental design was used. The study was conducted in Early Detection Unit at Ain Shams University Maternity Hospital. a purposive sample for One hundred women were included in the study. Three tools of data collection was used named cervical cancer interview Arabic questionnaire sheet, follow up sheet, diary sheet. The main results of the study indicate that highly statistical significant difference between women knowledge regarding cervical cancer before and after using guideline. As regard to, total attitude score regarding cervical cancer before & after using guideline the present study revealed that highly statistical significant difference between women attitude regarding cervical cancer before and after using guideline. The current study concluded that, the nursing guideline influence on women screening follow up for cervical cancer among high risk group women., Nursing guideline enhance women knowledge & attitude positively regarding cervical cancer. Based on this finding, the researchers recommended; there is an urgent need for conduction of educational programs targeting women by trained health care providers to providing information regarding cervical cancer.

Key words: Early detection of cervical cancer, Nursing guideline, High risk women .

Introduction:

Despite the significant impact of cervical cancer not only on women but also on the partners who live with them, but this disease still until now detected in late or at end stage this vary according to awareness regarding cervical cancer disease among women to other's. In addition to, there is no clear physical & sexual symptoms, show that women's are suffering from cervical cancer sign and

Symptoms. Low-income and disadvantaged groups are generally more

exposed to avoidable cancer risk factors, such as environmental carcinogens, tobacco use, alcohol abuse and infectious agents. These groups have less political influence, less access to health services, and lack education that can empower them to make decisions to protect and improve their own health (*Harper*, et al., 2012).

Otherwise, cervical cancer cases and deaths have decreased significantly during the past 40 years. Essentially, this decline is the result of many women getting regular Pap tests, which can find cervical precancer before it turns into

cancer or detect early stage, treatable cancers. Thus. early detection for cervical cancer aims to reduce incidence rate of morbidity and mortality regarding cervical cancer and to improve the quality of life of cancer patients in a defined population, through systematic implementation of evidence based intervention for prevention, early detection, diagnosis, treatment, and palliative care (kerkar and Kulkarni, 2014).

Nursing guidelines are systematically developed tools to assist health care provider and patient's women decisions about appropriate health care for specific clinical circumstances regarding gynecological diseases. Thus, nursing guidelines provide recommendations for effective practice in the management of clinical conditions where variations in practice are known to occur and where effective care may not be delivered uniformly throughout Scotland. This nursing guideline is intended primarily policy-makers, for managers, officers programme and other professionals in the health sector who responsibility for choosing strategies for cervical cancer prevention (Pati, 2013).

There fore, nursing guideline has had a significant effect on women's health., Also nursing guideline play an important role in promote women wellness who are both healthy and ill. Moreover, the nurse's are capable of playing a more prominent role by participating in the entire cervical cancer prevention triad: screening ,diagnosis, and treatment (*Pati*, 2013).

Significance of The Study:

Cervical cancer is the second most common female cancer in Egypt that leading to morbidity and mortality among women in Egypt, this disease often occurs due to late disease diagnosis, lack of knowledge and poor attitude towards the disease and risk factors that affect screening practice and development of preventive behavior for cervical cancer. So early screening for the cancer has been shown to be the most effective measure against the disease. Globally, cervical cancer accounted for an estimated 528,000 new cancer cases worldwide and for 266,000 deaths in 2015.; Moreover, these public health problem need put a strategic goal to reduce its incidence and mortality by 2020. Moreover, organized and applied public education and mass screening programmes can substantially reduce the mortality from cervical cancer and the incidence of invasive disease in the population. High incidence of cervical cancer is associated with lack of cervical cancer screening or lack of regular cervical cancer screening and follow-ups of abnormalities (Adams & Breen, 2015).

Also, the majority of cervical cancer among Egyptian women present at late stage of the disease with a large tumor size compared to Western countries. In addition to, participation rate in cervical screening programmes among female women still very limited & the majority of women in our society has sham to report and express their feeling regarding cervical cancer screening and treatment. Thus, nurse play an important role in

preventing cervical cancer complications among female women through informed all women about the risks and symptoms of cervical cancer, and strongly encouraged to report any unexpected vaginal bleeding or spotting to their doctors. In addition to, nurse play a significant role in innovative and thoughtful approaches incorporating an in-depth understanding of women's cultures and communities are needed to decrease the incidence of cervical cancer (Peate, 2014).

So, the researcher conduct this study to evaluate the effect of guidelines for early detection of cervical cancer among high risk group women.

Aim of the study

The aim of the current study is to evaluate the effect of guidelines on early detection of cervical cancer among high risk group women.

Research Hypotheses:

Guidelines will influence on women screening follow up for cervical cancer among high risk group women.

Subjects and Methods:

Study design, setting & sampling:

A Quasi experimental design was used to evaluate the effect of guidelines on early detection of cervical cancer among high risk group women. The study was conducted in Early Detection Unit at Ain Shams University Maternity

Hospital. One hundred women were included in the study; those women attending the early detection unit through eight months and follow up using guideline (booklet & it's effect) took another eight months. Total period taken to collect the study sample and follow up using guideline and its effect took about 1 year and four months through using a purposive sample according to the following criteria: all women under diagnosed with cervical cancer.. educated women., women suffering from reproductive symptoms., While, twenty of studied women drop out from the study after using guideline due to wrong telephone number.

Tools of data collection:

Three tools for data collection were used:

1. First Tool: Cervical Cancer Interview Arabic Questionnaire Sheet :

This tool included multiple choice questions, as well as an open and closeended questions. It divided into four parts as follow:

Part I: It covered the general characteristics of women included in the study as personal characteristics, Biosocio demographic data, e.g., age, occupation if present, educational level and socioeconomic level, duration of marriage & family income.

Part II: This part concerned with women's medical history as chronic medical disease as DM, HTN and cardiac disease & surgical history.

Part III: This part was designed to assess previous obstetric and delivery history.

Part IV: This part was used to assess women's knowledge regarding cervical cancer.

Scoring System for Knowledge Regarding Cervical Cancer Guidelines among High Risk Group Women's.

A- Level of Knowledge Scoring System was Calculated as Follows:

The scores ranged between 3, 2, or 1 & level of knowledge was assigned to each answer representing complete correct, incomplete correct and incorrect respectively.

- Complete correct answer and knowledge ranged from (33-48).
- Incomplete correct answer ranged from (17-32).
- Incorrect answer ranged from less than 17.
- **2. Second Tool: Follow up Sheet:** was designed by the researcher for follow using guidelines among high risk group women.
- **3. Third Tool: Diary Sheet :** was designed by the researcher & used to follow women's symptoms.

Supportive Material in Form of Arabic Guidelines Regarding Early Detection of Cervical Cancer:

Arabic Guidelines was developed by the researcher in Arabic form for early detection of cervical cancer that includes (concept of cervical cancer, risk factors for cervical cancer, causes of cervical cancer, signs and symptoms of cervical

cancer, complications of cervical cancer, diagnostic and screening tests for early detection of cervical cancer, cervical cancer prevention & nursing role regarding cervical cancer prevention and early detection).

Validity and reliability:

The tools for data collection developed by the researcher was reviewed for appropriateness of items and measuring the concepts through jury of 3 expertise's in the field of maternity and gynecological nursing and oncology expert at faculty of nursing, Ain Shams University to assure content validity of the questionnaire then accordingly some questions were modified. Reliability was done by Cronbach's Alpha coefficient test which r=0.79.

Ethical Consideration:

The ethical research considerations in this study included the following:

- An official approval was obtained from the Scientific Research Ethical Committee in Faculty of Nursing at Ain Shams University before starting the study.
- The researcher introduced herself for the clients women then explained the aim of the study to gain their confidence and trust to agree to participate in the study.
- An oral consent was obtained from each woman prior to participate in the study after ensuring that data collected were treated confidentially.
- The study maneuvers do not entail any harmful effects on participating women. Women were informed that they

have the right to withdraw from the study at any time without giving a reason.

Data collection technique (field work):

An official written approval letter containing the title and clarifying the purpose of the study was obtained from the Dean of the Faculty Nursing, Ain Shams University; Directed to the director of early detection unit at Ain Shams University Maternity Hospital to obtain his approval for data collection after obtaining the approval from the director of early detection unit data were collected 3 days/ week. The researcher attend the clinic 3 days / week from 9 am to 1pm. At first the researcher attended the previous mentioned setting then reviewed register book of the early detection unit then all attended women fulfilling the study criteria were included in the study.

First all participants were informed about the purpose of the study and An oral consent was obtained from each woman prior to participate in the study; Then the researcher met each women individually in private room & interviewed study women **twice / day.**

The first time before the woman enters the clinic for examination, Where the researcher explained the form of questionnaire and especial diary form for the current complaint reported by the woman and application form for the Likert scale to evaluate attitudes of highrisk group women's regarding cervical cancer and told them how to fill tools of

data collection before giving/using and reading the guideline and then the women fill the questionnaire form within 20 minutes and return it to the researcher before entering to the clinic for an examination.

The second time after examination the researcher interviewed women again after determining scheduling of periodic follow-up by the oncologist who supervised the doctorate thesis. The researcher explained for women both guideline regarding early detection of cervical cancer & the additional information as well explained the daily follow-up form for the use of guideline this session takes about 15 minutes.

*After examination, the researcher registered date of periodic follow-up for each woman separately to follow-up periodically by telephone to ensure they read guideline and use them regularly and continuous exchange of information contained in this guideline among family members and relatives. After three days during the women's attendance to get test result, the researcher interviewed women again to distribute the questionnaire form for 2nd time to compare and evaluate both their knowledge & effect of guidelines for early detection of cervical cancer among high risk group women before and after using guideline.

*Also, the researcher explained method of follow-up & communication between the researcher and women by the telephone until attendance for regular checkup at the deadline, which was determined by an oncologist who supervise my thesis. *Scheduling of

periodic follow-up for women who have undergone the procedure for early detection of cervical cancer based on the test result. Some of them has periodical checkup every three months as they had cervical infection and some of them has periodical check up every six months where the result of examination was normal or a negative for both Pap smear or colposcopy.

*During this period, the researcher has regular contact with studied women every two weeks to make sure that the women read the guideline and that all the information contained within guideline clear and understandable; and continue to contact with the studied women until appointment for periodic follow-up of cervical cancer. Indeed, all studied women attended to examination for early detection of cervical cancer either every three months or six months and with them the guideline previously distributed on them and application form for Likert scale after filling it received by the researcher from each woman individually for 2nd time after using guideline.

Limitations of the Study:

The researcher facing some obstacles during data collection this obstacles includes: Inability of the researcher to contact with 20 studied women (20 cases Drop out) after using guideline due to wrong telephone number. As a result, because of the infrastructure at Ain Shams University Maternity Hospital was exposed or Prone to fall hospital was closed for two months. These resulting in a lack of access to interview with the studied women during these

period of time from the research. Moreover, increasing the period of data collection to one year and four months.

Result

Table (1): Bio-Socio Demographic Characteristics of the Studied Women (n=100).

Bio-Socio Demographic Characteristics	no	%
Age (years):		
< 32	25	25.0
32 -	36	36.0
37-	28	28.0
42 -	8	8.0
47- 52	3	3.0
$Mean \pm SD$	36.39 ± 5.101	
Marital status		
Married	100	100.0
Marital duration by years:		
1-	12	12.0
6-	57	57.0
11-	29	29.0
16-20	2	2.0
Educational level:		
Primary school	25	25.0
Secondary school	48	48.0
High educational level	27	27.0
Income:		
Satisfactory	86	86.0
Unsatisfactory	14	14.0
Working status:		
Working	14	14.0
Not working	86	86.0
Type of occupation (n=14):		
Professional	6	42.8
Technical	6	42.8
Literal	2	14.4

Table (1): showed the distribution of the study sample according Bio-Socio demographic characteristics. Concerning women age 36.0% of them their age ranged from 32 to 37 years. While, marital status 100 % of women are married. Regarding marital duration 57.0% of them their martial duration ranged between 6 to 10years. Concerning their educational level 48.0% of women have secondary school. In addition to, 86.0% of women have satisfactory family income. On other hand, 86.0% of women not have work.

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Table (2): Distribution of Studied Women According to High Risk Factors for Early Detection of Cervical Cancer (n=100).

High Risk Factors	no	%
Vulval warts	29	29.0
Contact bleeding	23	23.0
Heavy vaginal discharge	31	31.0
Bleeding Disorder	17	17.0

Table (2): showed that 31.0% of studied women complains from heavy vaginal discharge as reported by them on diary.

Figure (1): Distribution of Studied Women According to High Risk Factors for Early Detection of Cervical Cancer (n=100).

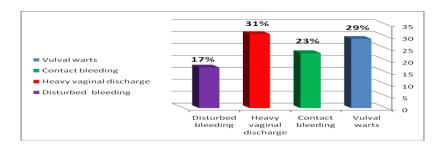


Figure (1): indicated that 31.0% of studied women complains from heavy vaginal discharge as reported by them on diary.

Table (3): Distribution of Studied Women According to Follow up of High Risk Group for Early Detection of Cervical Cancer (n=100).

	Follow up					
High Risk Group	/3]	Months	/ 6 Months			
	no %		No	%		
Vulval Warts (n=29)	29	100.0	16	55.1		
Contact Bleeding (n=23)	23	100.0	23	100.0		
Heavy Vaginal Discharge (n=31)	21	67.7	0	0		
Bleeding Disorder (n=17)	17	100.0	17	100.0		

Table (3): revealed that 23 & 17 of studied women complain from contact bleeding & disturbed bleeding attended for follow up regarding early detection of cervical cancer every three months and six months respectively. While, 29 & 21 of studied women complain from vulval warts & heavy vaginal discharge attended for follow up regarding early detection of cervical cancer during the first three months respectively.

Figure (2): Total Knowledge Score Regarding Early Detection of Cervical Cancer Before & After Using Guideline (n=100)

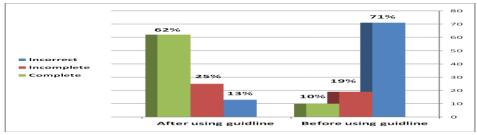


Figure (2): indicated that highly statistical significant difference between women knowledge regarding early detection of cervical cancer before and after using guideline.

Table (4): Relation between Women Knowledge Regarding Early Detection of Cervical Cancer and Their Bio-Social Demographic Characteristics Before Using Guideline (no=100).

	Women 's knowledge						
Bio-Social Demographic Characteristics	Incorrect Knowledge n=71	Incomplete Correct n=19	Complete Correct n=10	X ² P value			
Age (years):							
> 32 (n=25)	(18) 72.0	(6) 24.0	(1) 4.0				
32 - (n=36)	(24) 66.7	(7) 19.4	(5) 13.9	1.709	0.989		
37- (n=28)	(19) 67.9	(5) 17.9	(4) 14.2	1.709	0.989		
42 - (n=8)	(8) 100.0	(0) 0.0	$(0) \ 0.0$				
47- 52 (n=3)	(2) 66.7	(1) 33.3	$(0) \ 0.0$				
Marital Duration by Years:							
1- (n=12)	(8) 66.7	(3) 25.0	(1) 8.3				
6- (n=57)	(32) 56.1	(16) 28.1	(9) 15.8				
11- (n=29)	(29) 100.0	(0) 0.0	$(0) \ 0.0$	3.403	0.623		
16-20 (n=2)	(2) 100.0	(0) 0.0	$(0) \ 0.0$				
Educational Level:							
primary school (n=25)	(17) 68.0	(6) 24.0	(2) 8.0				
secondary school(n=48)	(33) 68.8	(11) 22.9	(4) 8.3	4.206	0.536		
high educational level (n=27)	(21) 77.8	(2) 7.4	(4) 14.8				

Table (4): showed that there is no statistical significant difference between women knowledge regarding early detection of cervical cancer and their age, marital duration & educational level before using guideline.

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Table (5): Relation between Women Knowledge Regarding Early Detection of Cervical Cancer and Their Bio-Social Demographic Characteristics After Using Guideline (no=100)

	7				
Bio-Social Demographic Characteristics	Incorrect N=13	Incomplete Correct N=25	Complete Correct N=62	\mathbf{X}^2	P value
Age (years):					
> 32 (n= 25)	(9) 36.0	(2) 8.0	(14) 56.0	1	0.003**
32 – (n=36)	(2) 5.5	(19) 76.0	(15) 41.7	16.33	
37- (n=28)	(1) 3.6	(1) 3.5	(26) 92.9	10.33	
42 – (n=8)	(1) 12.5	(2) 25.0	(5) 62.6	1	
47- 52 (n=3)	(0) 0.0	(1) 33.3	(2) 66.7	1	
Marital duration by years:					
1- (n=12)	(1) 8.3	(0) 0.0	(11) 91.7		
6- (n=57)	(11) 19.3	(25) 43.9	(21) 36.8	1	
11- (n=29)	(1) 3.4	(0) 0.0	(28) 96.6	4.379	0.223
16-20 (n=2)	(0) 0.0	(0) 0.0	(2) 100.0	1	
Educational level:					
primary school (n=25)	(0) 0.0	(1) 4.0	(24) 96.0	1	0.000**
secondary school (n=48)	(13) 27.1	(1) 2.1	(34) 70.8	51.17	
high educational level (n=27)	(0) 0.0	(23) 85.2	(4) 14.8		

Table (5): showed that there is a highly statistical significant difference between women knowledge regarding early detection of cervical cancer and their age and educational level.

Table (6): Relation Between Women Knowledge Regarding Early Detection of Cervical Cancer and Their Obstetric History After Using Guideline (no=100).

	7	Women 's knowledge			
Obstetric History	Incorrect n=13	Incomplete Correct n=25	Complete Correct n=62	X^2	P value
Gravida					
Gravida 1(n= 5)	(1) 20.0	(1) 20.0	(3) 60.0		
Gravida 2 (n=37)	(4) 10.8	(4) 10.8	(29) 78.4	25 (15	0.002**
Gravida 3 (n=42)	(5) 12.0	(17) 40.5	(20) 47.6	25.615	
More than 3 (n=16)	(3) 18.75	(3) 18.75	(10) 62.5	1	
Parity (n=83)					
Para 1 (n=5)	(1) 20.0	(1) 20.0	(3) 60.0		
Para 2 (n=32)	(2) 6.25	(4) 12.5	(26) 81.25	36.216	0.004**
Para 3 (n=36)	(2) 5.6	(7) 19.4	(27) 75.0		0.004**
More than 3 (n=10)	(2) 20.0	(2) 20.0	(6) 60.0	1	

Table (6): revealed that there is a highly statistical significant difference between women knowledge regarding early detection of cervical cancer and their obstetric history.

Discussion:

The fact cervical cancer has an impact on women health around the world. Indeed, early detection tests for cancer can help reduce deaths from the disease and may limit the need for extensive treatment, which can cause substantial side effects and longer-term health issues. Thus, using nursing guideline help in dissemination & improving awareness regarding cervical cancer screening tests, how the women can arrived and used this services, and expanding the use of & access to tests that

have been shown to reduce cervical cancer mortality (*Winer*, 2014).

The Bio-socio demographic characteristics of the studied women

revealed that more than one third of them were between 32 to 37 years old, Concerning marital status all the studied women are married. Regarding women marital duration, more than half of studied women martial duration ranged between 6 to 10 years. This finding was agreed with Nada, Awaad and El Ayaat., (2013), who conducted a study on Knowledge of Cervical Cancer and Its Socio-demographic Determinants among Egyptian Women & Reported that (53.0%) of study sample at the age of 30 to 35 & (3.5%) were divorced women, while (96.5%) were married women. Adding to, about half (48.0%) of studied women have secondary school.

This study finding was incongruent with *Sharma & Rahi*, (2012), who carried out a study to evaluate the women's knowledge and its association

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with the socioeconomic-demographic profile among the women in Jammu region & found that educational status was also taken into consideration in which the major proportion (58.7%) of the females had undergone primary education. This contrast could be explained by the women of Jammu have limited knowledge about susceptibility of cervical cancer and therefore there is an urgent need to upgrade the health standard of women of Jammu region. Thus Prevention efforts should be focused on improving social the awareness, enforcing education strategies to reduce risk factors.

Regarding distribution of studied women according high risk group for cervical cancer the current study showed that one third of study sample had heavy vaginal discharge. This result was agree with Misra, et al, (2013), who conduct study on prevalence of high risk human Papilloma virus in cervical dysplasia and cancer samples among women in Pakistan & reported that the majority of participants had symptoms of cervical cancer including heavy and offensive vaginal discharge (86%), inter-menstrual bleeding (65%) and post-menopausal bleeding (74%). This agreement could be explained by the onset of sign & symptoms of cervical cancer vary from women to another.

As regard to, distribution of studied women according to follow up of high risk group for early detection of cervical cancer, the present study finding reported that nearly third and around one quarter of study sample perform follow up regarding early detection of cervical cancer every three months and six months respectively. The current study finding was supported by Sartori, et al, (2016), who conduct study on two hundred women the timing for followup visits every 3-4 months within the first 2 years, every 6 months for the next 3 years, and annually thereafter or until 5 year according the discretion of the treating physician and reported that only 26.0% of studied women attended for follow-up visit every 3-4 months. While 15.0% of studied women attended for follow-up visit every 6 months and none of them attended annually. This agreement could be explained by most of studied women limited to attended for screening programs toward early detection of cervical cancer due to administrative failures, particularly, most of them give incorrect addresses. In addition to, most of studied women facing many factors, including limited access to health care services, absence of any symptoms and worry to have a test that detects cancer, inability of them to leave household tasks, family problems such as lack of approval from husbands and cultural attitudes that are fatalistic toward diseases such as cancer.

As regards, comparison between total knowledge score regarding cervical cancer before and after using guideline, The present study finding illustrated a highly statistical significant improvement on women knowledge regarding early detection of cervical cancer after using guideline. This finding is supported by Abu-Raddad & Akala, (2014), who conducted a study on "Comprehensive"

Knowledge, attitude and practice of screening for carcinoma of the cervix among reproductive health clients at three teaching hospitals using guideline for prevention and early detection of cervical cancer in Addis Ababa and reported knowledge improvement of respondent toward screening of cervical represent (71.7%) of respondents, Four hundred women of studied sample agreed that carcinoma of the cervix causes death and forty three(66.4%) of the respondents perceived that any woman can acquire cervical cancer, 488(73.2%) of the respondents agreed that screening helps in the prevention of cervical cancer and 534 (80.1) respondents volunteered to be screened if screening for cervical cancer is free. 459 (68.9%) of respondents report that the procedure causes no harm. This agreement could be explained by a health education methods introduced for women in form of nursing guideline contains information regarding cervical cancer prevention may be the key to changes in women knowledge regarding cervical cancer prevention & early detection.

As regards, Relation between women's knowledge regarding cervical cancer and their socio demographic characteristics. The present study finding reveals a highly statistical significant difference between women knowledge regarding early detection of cervical cancer and their age and educational level and type of occupation after using guideline. The current study finding was in the same line with Kaku, et al., (2013), who conducted a study among 422 randomly selected women aged 18-49 years attending in a major cancer hospital in South India & reported that highly statistical significant association between women knowledge and increased risk of cervical cancer was observed in the women of the age group of 40-50 years

(p-value<0.001). Other highly statistical significant socio-demographic characteristics include low level of education among women was associated with an increased risk of cervical cancer (OR = 3.69; 95% CI = 2.4 5.6; p < 0.0001**). **This significance could be explained by** this corroborates well with earlier findings that women with high screening rates have high level of education.

The current study finding reveals a highly statistical significant difference between women knowledge regarding cervical cancer and their obstetric history after using guideline. These study finding was similar to Smith & Lindsay, (2015), who conducted study on increase risk of Human papillomavirus among multipara women's in Mali and reported that parity was significantly increasing associated with cervical cancer and women with three or more children had a higher risk for cervical cancer (45.9%) than those with 1-2 children (13.6%) (P<0.004).

Conclusion & Recommendations:

Based on the results of the present study, it is concluded that: Nursing guideline affect women's screening follow up for early detection of cervical cancer among high risk group women., Nursing guideline enhance women's knowledge & attitude positively regarding early detection of cervical Based on this finding, the cancer. researchers recommended; there is an urgent need for conduction of educational programs targeting women by trained health care providers to providing information regarding cervical cancer.; Dissemination of cervical guideline among female in gynecological clinical to prevent the risk of cervical cancer.: For further research in this Replication of the research on a large probability sample is recommended to

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achieve more generalization.; increase awareness regarding cervical cancer screening through ccontinuing nursing education programs may contribute to strengthen cervical cancer screening follow up.

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