Original Research Paper

Medicine

KNOWLEDGE OF PHYSICIANS WORKING IN PRIMARY HEALTH CARE CENTERS TOWARD SCREENING TEST OF CERVICAL CARCINOMA IN IRAQ.

Dr. Nadia Adil Khesro	Family Medicine, Consultant.
Dr. Esraa Thaer Majeed	Family Medicine, Specialist.

ABSTRACT

Background: Cervical cancer is one of the most common and most serious malignancies. In the last five years, cervical cancer is the 2nd most commonly diagnosed cancer in the world, occupying the 2nd frequency in women (after breast cancer).

Objectives: Aim of this study is to evaluate the level of knowledge of physicians about screening program of cervical carcinoma and finding the most common barriers to surmount them.

Methodology: A cross sectional study was carried out on 300 physicians in primary health care centers in Iraq.

Result: The result revealed that most participant physicians' knowledge about when to start screening for cervical cancer in average was ≥21 years of age (81%), and (53.7%) of them revealed the time to have a women first pap smear is after first sexual intercourse. This study shows that mostparticipant physicians' knowledge about intervals between pap smear screening for cervical cancer was 3 years (23.3%).

Conclusion: According to the results, we can conclude that knowledge score regarding screening test of cervical carcinoma is accepted in (70.7%) of physician participate in this study.

Also we conclude that the main barrier to apply screening test for cervical carcinoma is the anxiety problem in patient been of false positive pap smear results and lack of resources for screening implementation.

INTRODUCTION

Cervical cancer is one of the leading causes of morbidity and mortality among gynaecological cancers and is second to breast cancer as the commonest female cancer[1,2].

The major reasons for the high cervical cancer rates mainly in the developing countries are due to lack of effective screening programs, non availability of adequate treatment strategies for pre invasive lesions and lack of awareness among women about the available health care facilities to prevent cervical cancer. [3]

In Iraq, as in most Islamic countries , cervical cancer is comperatively low, it accounts for about 1.5% of total cancer cases in Iraqi females and does not ranked as one of the top of ten cancers .[4,5]

Screening has been proven to be beneficial tool for preventing cervical carcinoma through early identify and removal of premalignant cells, so screening lead to (40-70)% reduction in cervical carcinoma mortality.[6].

Knowledge about cervical cancer and lack of awareness of available screening methods have been identified as the most important factors hindering the use of available cervical cancer screening services.[7,8]

Screening And Early Detection:

Screening is looking for cancer before a person has any symptomps. This can help find cancer at an early stage . When abnormal tissue or cancer is found early, it may be easier to treat[9] By the time symptoms appear, cancer may have begun to spread. According to the National Cancer Institute ,regular screening reduce the risk of developing or dying from cervical cancer decrease by 80%.[10,11]

The goal of a screening protocol is to optimize the detection of lesions at a time when they are treatable while limiting the precancerous benign disease and to prevent invasive carcinoma harm of over treating by diagnosing and treating women with high grade cervical lesions. [12].

Screening Modality:
A-Cervical Cytology:

The Papanicolaou (Pap) smear is an efficient, affordable, and effective method for detecting cytological changes in the uterine cervix. It plays an important role in screening programs, in reducing both the incidence & mortality of invasive cancer.

The goal of routine screening is to detect early cytological changes such as dysplasia and to treat the patient before cervical cancer develops[13].

Result Of Pap Smear

There are two possible results from a Pap smear: normal or abnormal.

Normal Pap Smear

If the results are normal, that means that no abnormal cells were identified. [14]

Abnormal Pap Smear

If the test results are abnormal, this doesn't mean client have cancer. simply means that there are abnormal cells on cervix, some of which could be precancerous. There are several levels of abnormal cells:
• atypia
• dysplasia (mild, moderate, severe).
• carcinoma in situ

Pap tests are very accurate, and regular Pap screenings reduce cervical cancer rates and mortality by 80%. It can be uncomfortable, but the brief discomfort can help protect your health.[13,14]

The main purpose of a Pap smear test is to identify cellular changes in the cervix, which could be caused by HPV. By detecting cervical cancer cells early with a Pap smear, treatment can start before it spreads and becomes a bigger problem. [13]

B- HPV Testing

With the knowledge that significant cervical neoplasia is always associated with HPV, it has been suggested that HPV testing could be used to screen women for cervical neoplasia. [15,16]

• According to American cancer society Guidline for early detection of cancer (2019), the preferred screening tests according to ages :
• Women age (21-29): Pap test every 3 years. HPV testing should not be used unless there is abnormal pap testing.[11]
• Women age (30-65): should have a pap test plus HPV test called (co- testing) done every 5 years, this is a preferred approach. [11,13]

But can also do pap test every 3 years.[13,17]
• Women age (65 years and older): if have regular cervical cancer screening tests in the past 10 years with normal results, can stop the screen. If women with precancerous lesions, should continue testing 20 years after diagnosis such lesions even if testing go past age 65 years. [11,13]

• Women with total hysterectomy for benign reasons, should not be tested.[11]

C-Visual Inspection:
Visual screening is a process on identifying cervical lesions without reliance on cytology (Pap smears). (11,15).

C.1- Visual Inspection Without Acetic Acid Application:
Promote in low-resource settings, this approach has been found not sufficiently accurate in identifying precursor lesions and cancer. (11,18) **C.2- Visual inspection after application of 3-5% acetic acid(VIA):** VIA, sometimes referred to as DVI (direct visual inspection), offers a low technique, low-cost method of screening for dysplasia.(14,18)

SUBJECT AND METHODS
Study design:
A descriptive cross sectional study.

Time Of The Study:
This study was carried out during the period between 1st February to 1st of July 2021.

Setting Of The Study:
The study was conducted in Baghdad/ Iraq and the Primary Health Care Centers Centers were chosen randomly.

Sample Size And Sampling Technique:
A total of 300 physicians in Primary Health Care Centers were selected to participate in the study on a convenient base.

Inclusion Criteria:
Physicians of both sexes in six sectors of Primary Health Care Centers in Baghdad /Iraq.

Exclusion Criteria:
Physicians whom refused to participate in this study for any reason.

Ethical Consideration
1. The manager of Primary Health care centers were visited first before starting data collection in each center for permission.
2. Verbal consent was approved from each physician before giving questionnaire and explains that this information will be used for research purpose only.

Statistical Analysis:
Data were presented in simple measures of frequency, and percentage. The significance of difference of different percentages (qualitative data) were tested using Pearson Chi-square test (χ^2 test). Statistical significance considered whenever the P value was equal or less than 0.05.

RESULT
Table (1) Distribution of studied group according to socio-demographic characters. A total sample studied was 300 doctors, the highest proportion of participant age (30-39) years is (68%), females (65.7%), general practitioner (40%) and (50.3%) of them have (5-9) years of experiences.

		No.	%
Age (years)	<30y	25	8.3
	30---39	204	68.0
	40---49	50	16.7
	=>50y	21	7.0
	Mean±SD (Range)	35.7±6.9 (25-59)	
Gender	Male	103	34.3
	Female	197	65.7
Job description	General practitioner	120	40.0
	Family Medicine specialist	66	22.0
	Family Medicine resident	72	24.0
	Other specialties	42	14.0
Year of practice	<5y	24	8.0
	5---9	151	50.3
	10---14	67	22.3
	=>15y	58	19.3

Table (2): Distribution of the participant physicians' knowledge about cervical cancer 's screening program.

Most of the participant physicians (97%) revealed that reasons for need of cervical cancer screening program was to detect cervical cancer early, (81%)of them revealed that age to begin screening was >21 years, (58.7%) revealed effectiveness of pap smear was very effective.

Around (53.7%) of the participant physicians revealed that timing to recommend to women to have first pap smear is after sexual intercourse regardless of age, (68%) revealed the time that women should wait 1 year for next pap smear if previous was normal. (94%)revealed if pap smear is abnormal, colposcopy should performed.

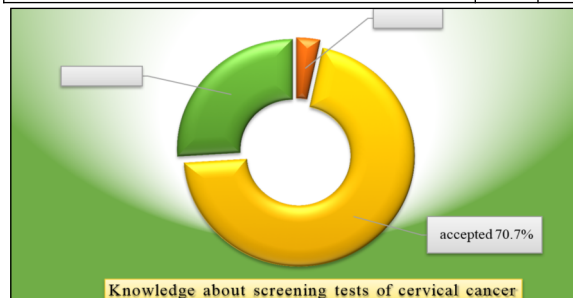| Knowledge about screening;		No.	%
Reasons for need of cervical screening program;			
1-Cancer can be detected early		291	97.0
2-Cervical carcinoma is increased		284	94.7
3-Early detection save life		281	93.7
4-Essential parts of woman health care		210	70.0
Age to begin screening	<21y	57	19.0
	≥21y	243	81.0
Effectiveness of PAP smear	Very effective	176	58.7
	Somewhat effective	119	39.7
	Do not know	5	1.7
Timing to recommend for woman to have her first PAP test	In late adolescent (16---19 years)	126	42.0
	After sexual intercourse regardless of age	161	53.7
	After birth of first child	13	4.3
Time that woman should wait for next PAP smear if the previous was normal	1--6 months	12	4.0
	1 year	204	68.0
	3 years	80	26.7
	Others	4	1.3
When PAP test is abnormal you would perform colposcopy.(no)		282	94.0

Figure (1) Knowledge About Screening Tests Of Cervical Cancer.

Table(3): Distribution of barriers to the participants physicians in primary health care centers toward cervical cancer screening program. It revealed that main barriers in cervical cancer screening program for (93.7%) physicians participate in the study in primary health care centers is anxiety problems in patients because of false positive pap smear results.

Potential barriers for PHC physicians to participate in screening program		No.	%
Anxiety problems in patients because of false positive PAP smear results	Important	281	93.7
	Not	19	6.3
False feeling of safety from potential false negative PAP smear test results	Important	262	87.3
	Not	38	12.7
Physicians lacks of time	Important	124	41.3
	Not	176	58.7
Difficulty to discuss screening procedures with patients	Important	238	79.3
	Not	62	20.7
Lack of knowledge of physicians of screening programs	Important	266	88.7
	Not	34	11.3
Lack of resources for screening implementation	Important	267	89.0
	Not	33	11.0

DISCUSSION:
This study revealed that the participant physicians' knowledge about screening tests of cervical cancer as (26%)good, (70.7%) accepted and (3.3%)poor knowledge.

This study revealed that reasons for need for cervical cancer screening as (97%) of the participant physicians showed that cervical cancer can be detected early, (94.7%) of them showed the reasons due to cervical cancer is increased, (93.7%) of them showed early detection can save life and (70%) of them showed that is essential part of women health care.

This agree with the study done by Padmanabhan B., Saad G., Nawal O.

et al. in United Arab Emirates in 2015. (19)

This study showed that (81%) of participant physicians revealed that age to begin screening is ≥21 years of age and this study was agree with a study done by Michelle D. and Saran F. in United States in New York 2015 in which it showed the age at onset to begin screen ≥21 years of age. (20)

The study showed the effectiveness of pap smear as : (58.7%) of participant physicians revealed it as very effective, (39.7%) of them revealed it as somewhat effective and (1.7%) of them don't know about its effectiveness.

This study showed timing to recommend for women to have her first pap test as: (42%) of the participant physicians revealed it in late adolescent (16-19) years, (53.7%) of them revealed it after first sexual intercourse regardless of age and (4.3%) of them revealed it after birth of first child.

This study is near to the study done by Aldrich T., Becker D., Garcia SG., et al. in Mexico in (2014). (21)This study show time that women should wait for next pap smear if previous was normal as: (4%) of the participant physicians reveal it every (1-6)months, (68%) of them reveal it every 1 year, (26.7%) of them reveal it every 3 years and (1.3%) of them reveal other times.

This study is similar to a study done by Analia R., Lenido D. and Mona S. in Brazil in 2014 . (22)

This study revealed that the participant physicians' knowledge about screening tests of cervical cancer as (26%)good, (70.7%) accepted and (3.3%)poor knowledge in compare with a study done by Coskun S., Can H., and Turan S. in two southern cities of Turkey in 2013 in which a sample of (327) physicians show low knowledge and inadequate screening practice (34%)good, (19%) accepted and (57%) as poor knowledge, so the physicians should be better informed about the importance of screening for cancers, given their preventive roles for the general populations.(3)

The study show the main potential barriers for primary health care physicians to participate in screening programs as: the anxiety problems in patient because of false positive pap test results (93.7%), lack of resources for screening implementation (89%) and least common barrier as physicians lack of time (41.3%) , This agree with study done by Abdi A.,Samara A. and Esperenza D. in Pakistan in February 2016 .(23)

CONCLUSION
This study revealed that the participant physicians' knowledge about screening tests of cervical cancer as (26%)good, (70.7%) accepted and (3.3%)poor knowledge.

We found that the main barriers to apply screening tests for cervical cancer were pap tests as anxiety problems in patient because of false PAP tests results and lack of resources for screening implementation.

Recommendation:
Physicians activate their health educational role toward cervical cancer in clarifying the nature of the disease consequences by early detection and intervention and treating the underlying cause comorbid conditions.

The need for increasing the awareness about cervical cancer. We should add the screening program of cervical cancer in primary health care centers in Iraq because we can early detect the disease for better prognosis.

REFERENCES
1   Jemal A, Siegel R., Ward E, et al (2018). Department of Family Medicine, Faculty of Medicine in Ethiopia. Knowledge about cervical cancer screening among women attending public health centers in Addis Ababa city, Ethiopia.
2   Cervical cancer incidence , mortality and prevalence worldwide in 2018 summary available from http://globocan.iarc.fr/factsheet.asp Accessed on: March 2019.
3   Coskun S, Can H, Turan S (2013). Knowledge about cervical cancer risk factors and Pap smear testing behavior among female primary health care workers: a study from south of Turkey. Asian Pac J Cancer Prev, 14, 6389-92.
4   Iraqi Cancer Registry 2016, annual report. Iraqi Cancer Board , Ministry of Health, Baghdad-Iraq 2016.page 27.
5   Charles C., Samuel N., Glen R., et al.(2015) in Texas .Primary cervical cancer screening with HPV test.
6   Bebis H, Reis N, Yavan T, et al (2012). Effect of health education about cervical cancer and papanicolaou testing on the behavior, knowledge, and beliefs of Turkish women. Int J Gynecol Cancer, 22, 1407-12.
7   Nwankwo KC, Aniebue UU, Aguwa EN, et al. (2011). Knowledge attitudes and practices of cervical cancer screening among urban and rural Nigerian women: a call for education and mass screening. Eur J Cancer Care, 20, 362-7.
8   Alfred F. Tallia, Joseph E. Scherger And Nancy W. Dickey. (editors), (2017). Swanson's family medicine review (7th. Edition). Page (401-407).
9   Louis Kenny, Helen Bickerstaff and Jenny Myers (editors). 2017. Gynaecology by ten teachers, (20th. Edition). Malignant disease of uterus and cervix. P:131-142.
10 Fang Fan and Ivan Damjanov (editors), (2013). Tumors of female genital tract. (2nd. Edition). Berlin, Germany.
11 American cancer society guidline for early detection of cancer. Available at http://www.cancer,org,research ,at 30/5/2018. Archived from original at 2 June 2019.
12 Laurie E., Hamilton ON., Jessica M., et al. (2017), Canada. Cervical cancer screening in low resources-settings. ACOG Committee Opinion. 2017; 624: 1-3.
13 Robert E. Rakel , David P. Rakel (editors), (2016). Textbook of family medicine (9th. Edition). Page: (477-481).
14 Adam Felman / Assistant editor at medical newstoday.UK. Cervical cancer screen , Brayton.http:// www.medicalnewstoday.com , updated at (25/6/2019). Archived from original at 2 July 2019. 7:00pm.
15 Niharika K., Aprana R., Pinaki P., (2015), Odisha/India. Reproductive health research. Community Awareness of HPV screening and vaccination.
16 National cancer institute . Cervical ca.screening. http://WWW.cancer.gov/types/ cervical patient/cervical screen in 18/1/2019. Archived from original in 4 May 2019. 10:30 pm.
17 Paul G., Noel T., Smith J. S. Human Papilloma virus knowledge and vaccine acceptability among a national sample of heterosexual men. http://journals.pagepub.com, published online on June 2019. Archived from original at July 2019.
18 American cancer society for early detection and prevention of cervical cancer at 2017. Available at http://www.cancer.org Archived from original at 20 July 2019.
19 Padmanabhan B., Saad Ghazal A., Nawal Osman, et al. (2015). Department of Obstetric and Gynaecology in United Arab Emirates.A study of knowledge, attitude, and practice of cervical screening among female primary care physicians in the United Arab Emirates.
20 Michelle Davis and Saran Feldman. NewYork, (2015). Making Sense of Cervical Cancer Screening Guidelines and Recommendations.
21 Aldrich T., Becker D., Garcia SG., Mexico. (2014). Mexican physicians' knowledge and attitude about the human papillomavirus and cervical cancer: a national survey article for authors' affiliations Correspondence to:S G Garcı´a, population Council, Panzacola 62, Interior 102, Population Council, Col Villa Coyoaca´n, Mexico DF 04000, Mexico; sgarcı´a@popcouncil.org.mx.
22 Analia R., Lenido D., Mona S., (2014). Department of cancer prevention in Brazil. Cervical Cancer-Related Knowledge, Attitudes, and Practices of Health Professionals Working in Brazil's Network of Primary Care Units.
23 Abdi A. Gele , Samera A Qureshi and Esperanza Diaz (2016) / Pakistan. Barriers and facilitators to cervical cancer screening among Pakistani and Somali immigrant women in Oslo.