

Perform Pap smear test and Factors affecting on the prevalence of cervical cancer in women at Qazvin, Iran

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Abstract

Background: After breast, skin and lung cancers, cervical cancer is the most common cancer in women and is a kind of cancer that can be diagnosed with Pap smear method in pre malignancy stage. Awareness of screening methods of this cancer, have great influence in reducing the incidence and mortality of it.

The aim of this project was to determine awareness, attitude and function of married women, who referred to health centers of Qazvin, about Pap smear and cervical cancer in 2018.

Method and Material: In this cross-sectional study (descriptive-analytical), 300 married women, who referred to health centers of Qazvin in 2018, were selected by classified sampling method and then simple random selection. The study was a questionnaire with 4 part including demographic questions, functional test, attitude and awareness resulting from national Pap smear plan of health minister, which was distributed and completed after confirming the validity and reliability with coordination centers with the help of trained people. The data were analyzed with SPSS 22 software.

Result: In this project that the highest age group were women with 35-45 years (58%) with the average age of (36±8) years, awareness about introducing and recognition of pap smear and cervical cancer were 41% and 46% respectively. 44% of them have at least once experienced pap smear. 24% of this number have followed up again after one year. 73% of participants of this project were agree with the test and early diagnosed of cervical cancer.

Conclusion: In order to assess the effect of factors influencing awareness, attitude and function of the women about the cervical cancer and pap smear test, using multiple regression model, it was determined that there is a significant relation between level of awareness and factors including: age, economic situation, job and education ($p=.05$). also there is a significant relation between function and attitude and factors including education, age and awareness about disease. This represents a change in policy and education and health infrastructure in the field of knowledge of cancer and the use of modern methods of teaching.

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Background

The most common cancer in the women then breast, skin and lung cancers is cervical cancer. This disease kind of cancer that can be diagnosed with Pap smear method in pre malignancy stage. Awareness of screening methods of this cancer, have great influence in reducing the incidence and mortality of it. The aim of this project was to determine awareness, attitude and functional test of married women, who referred to health centers of Qazvin University of medical science, about Pap smear and cervical cancer in 2018. W.H.O in 2010 diagnosed 7.3 million new cases of cancer in the world that 59% of these numbers were for developing countries [1]. This number increased to 22 million in 2016. This disease is the third cause of death in developing countries [2]. According to the records of W.H.O 25% of women death is caused by malignant tumor that 18% of these numbers were because of cervical cancer [3]. Because on the latest finding 85% of all cervical cancer causes (493000 cases per year) and also 85% of deaths caused by this disease (273500 cases per a year) were recorded in developing countries [4]. At present time this cancer is responsible for 4.2 million deaths among women between the ages of 25 to 65 in developing countries while this number is 3.0 million in developed countries [5]. In Iran cervical cancer is a common kind of cancer with the outbreak percentage of 64.6 among other cancers [6]. The pre-cancer stage of this disease is long and if the patient were to be treated the survival rate is almost 100 percent [7]. The role of screening in the first diagnoses of this disease is highly important [8]. The role of doing Pap Smear is early diagnosis of changes in pre-cancer stage [9]. Screening by Pap Smear is simple cheap and mostly reliable for diagnosis of pre-malignant changes cervical cancer [10]. The Obstetricians College in U.S has recommends this test [11]. Every woman after the age of 18 or after sexual activity has to take a Pap Smear test per a year. If the test results of Pap Smear and Pelvic examination in 3 years in a row were natural then increasing the distance between the tests by the doctor orders is permitted [12]. By presenting Pap smear as an act of screening. The outbreak of cervical cancer since 1950 has decreased by 79% and

the number of deaths has decreased by 70% [13]. With consideration of high detection power of Pap smear test and suppleness of it, it is expected that all women attend regularly for this test while in developing countries the number of attendances is not optimal [14]. Even though the Pap Smear has entered Iran's hygiene system since 1991 the studies show that it isn't welcomed in Iran [15]. During the studies which were conducted in Yazd only 51.14% of women regularly take the test (at least once every 3 years) [16]. A study on Farsan women shows that women between the ages of 30_40 (80%) have the most awareness and women between the ages of 15_19 (64%) have least awareness about Pap Smear test that shows the value of awareness examination [17]. Also the information s of a research shows the connection between awareness and cancer screening is not totally clear and needs more studying [18]. On this research we tried to find the most effective reasons on awareness, view and women function about Pap smear and cervical cancer as much as possible and help hygienic managers about improving cervical cancer.

Method and Material

This research is a cross-sectional study that is analyzed by SPSS20 software. This descriptive research is analyzed to show the level of awareness; view and 300 married women function that attended to health centers of Qazvin University of medical science about Pap smear and cervical cancer in 2018.

On that course the questionnaires (made by the researcher) was used. The validity of those questionnaires was confirmed. The data was included of 4 parts such as: 1- demographic questions 2-functional questions 3-three optional awareness questions (yes, no) 4-attitude questions that were on Likert 5 degree scale then the questionnaires were given and completed by trained people with the coordination of health centers of Qazvin University of medical science. Analyzing the data was performed by SPSS20 program and statistical formulas. In this research we used simple random sampling among applies. Funds from the questionnaires were uploaded in SPSS20 analyzing system, and then one

of the statistical formulas was used with the help of statistical professor.

Findings

On this research that the majority of the age category was women between the ages of 20-30 with the average age of (31±6) the level of awareness about familiarity and knowing Pap smear was 41% and cervical cancer was 46%. 44% have done Pop Smear exam at least once and 24% of these applied again. View of 73% of the participants in the studies was positive and resulted in early recognition.

Table 1: Frequency and sig-relation age's group of women with performance Pap smear test.

Age group	Pap smear	frequency	percentage	p-value
Under 20 years	yes	13	%29	0.004
	no	32	%71	
20-30 years	yes	123	%76	
	no	40	24%	
30-40 years	yes	50	81%	
	no	12	19%	
Over 40 years	yes	26	87%	
	no	4	13%	

Table 2: Frequency of pregnancy women and sig-relation with performance Pap smear

Number of pregnancy	Frequency	Percentage	P-value
None	20	11%	0.000
Once	60	31%	
Twice	65	34%	
Three times	32	17%	
Four times	8	4%	
Five times	5	3%	

Table 3: Frequency of performance Pap smear test in the women

Pop smear	Frequency	Percentage
Positive	190	64%
Negative	110	36%
Sum	300	100%

Table 4: Number of performance of Pop Smears test

Number of Pop smear	frequency	percentage
Once	26	28.3
Twice	16	17.4
More than three times	14	15.2
Not done	36	19.1

Table 5: Summary results of stepwise logistic regression to predict the Pap test performance

Variable	β	β (SE)	OR	CI-(95%-Interval)		P value*
Pap test Knowledge	0.28	0.35	1.13	14.05	16.11	<0.04
Cervical cancer knowledge	0.23	0.18	1.09	13.79	15.83	<0.03
age	0.03	0.01	3.27	17.91	19.01	0.000

Table 6: Mean score of knowledge about Pap test and cervical cancer in women

Variable	History of pap smear	Mean SD	P value*
Knowledge about Pap test	yes	3.21±1.83	<0.03
	no	2.05±0.88	
Cervical cancer knowledge	yes	4.63±0.93	<0.02
	no	2.46±1.8832	

Results

Cervical cancer is one of the most important kinds of cancer among women [19]. Early recognition of it is highly effective in reducing the number of deaths and decreasing the rate of the disease, Therefore knowing this method could be effective. The prevalence of cervical cancer is increasing because using Pap smear test more regularly and more comprehensively than in the past [20]. According to the American Cancer Society (2012), the Pap smear test is a routine cancer screening method that should be done every 3 years, and a Pap smear with an HPV DNA test is recommended as a screening method every 5 years [21]. In the present study, most of the low knowledge was detected in patients in the age group between Under 20 years and

60 years. Low attitude and low using test were found in 8% and 9% of the women in this age group, respectively. The study reported that most of the low knowledge cases 13%, in their study was in the age group of 20–29 years, followed by 35.96% in the age group of 20–29 years [22]. High attitude was found in 67% (age group of 30–40 years) and high using test in 79% (age group of 30–40 years). Other study reported that high using test was the most common knowledge, found in 47% of their individuals, followed by attitude in 34% of the cases [23]. For positive knowledge and using test, the average age of the women was 36 years.

The education and effectiveness: level of education (diploma) 39% and Masters and higher 24%. In the conducted research most participants didn't have women diseases (relative abundance of 72.8) and few participants were sick (relative abundance of 27.2). In this study most participants took Pap smear (relative abundance of 59.8) and the remaining participants (relative abundance of 40.2) didn't take Pap smear. Most number of taken Pap smear exams was once (relative abundance of 28.3) and the lowest taken exams three times (relative abundance of 15.2) and for those who didn't take the exam (relative abundance of 19.1).

Conclusion

Pap smear testing is a very useful, method, and safe procedure for detecting cervical cancer. It should be established as a routine screening procedure to reduce the treatment burden, morbidity, and mortality. Every woman above the age of 30 years should undergo routine cervical cancer screening, even into the postmenopausal period. The Pap test has been regarded as the gold standard of cervical screening programs. The community should be educated about the Pap smear test, including its goal and the required frequency of application, by widespread educational and media programs. Most women who visited an outpatient clinic are not aware of cervical cancer screening. Thus, there is a need to spread cancer screening programs to help prevent mortality and morbidity due to cervical cancer [24-28].

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