

Knowledge, Attitudes and Practice about Pap Smear among Women Referring to A Public Hospital

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Abstract

Objective: The Pap smear is a reliable, inexpensive and effective screening test for cervical cancer; the second most common cancer among women worldwide. We aimed to determine women's knowledge, attitudes and practice towards Pap smear and barriers for the screening in a public hospital.

Materials and methods: This study, was carried out on 350 outpatient married women referring for a visit at the clinics of the Alzahra educational hospital, Rasht- Iran, 2011. A questionnaire including demographic characteristics (24 questions), knowledge (14 questions), attitudes (11 statements) and practice (10 questions) towards Pap smear was completed by interview with the women. The data were analyzed using SPSS ver.13.

Results: Mean age of participants was 32 (SD 12) years. Of the respondents, only 44.3% were aware of the Pap smear and 27.1% had had it at least once in their life. The most common reason for having the test was physicians' or other health workers' advise and for not having the test was no recommendation by health providers and lack of knowledge about Pap smear. Embarrassing, fear of the test result or economic problems mentioned by only 12 (4.2%) as the main barrier. Mean (\pm SD) knowledge score of the women who had heard about the Pap smear was 59.4 (24.3) and attitudes score of all participants was 48.5 (11.6) from possible range score of 0-100. Women with a history of Pap smear had had higher awareness and attitudes score.

Conclusion: The knowledge and practice of the women was inadequate and need to be promoted. Considering the main reason mentioned by the participants for not having the test, all health providers should educate and encourage women to do regular Pap smear.

Keywords: Pap Smear, Knowledge, Attitudes, Practice, Barriers

Introduction

Cervical cancer is the second most common cancer among women worldwide and is a major health

problem in developing country (1, 2). Its incident rate was estimated to be 2.2 and mortality rate 1.0 in 100,000 women in Iran, 2008 (3).

This cancer can be prevented because of the long pre-invasive period (4) and its prevention and early detection by screening tests can contribute to the achievement of the Millennium Development Goals (5). The Papanicolaou smear is a reliable, inexpensive and effective screening test for cervical cancer (6, 7). Active

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participation of the target population is required for success of the screening program (8). Therefore, it is important to know reasons for women's non-participation in the screening programme (9).

Results of several studies show wide variation in terms of participation, knowledge and attitudes about cervical cancer and Pap smear (10, 11). Therefore, needs assessment in any society is essential to any plan to promote health behavior in this area (12). There are limited number of studies on knowledge, attitude and practice of women about Pap smear in the country and we found no study about Pap smear in the city of Rasht. This study aimed to determine the knowledge, attitudes and practice of women in the Rasht towards Pap smear, barriers for their participation in the screening and also relationship between the knowledge, attitudes and practice.

Materials and methods

This study was carried out on 350 outpatient women referring for a visit at the clinics of the Alzahra educational hospital, Rasht, 2011. Inclusion criteria were: married; lack of speech and hearing problems; lack of history of any cancer.

Considering $p=27\%$ for having Pap smear at least once (based on results of a study by Ahmadi et al (13)), $d = 0.05$, and a significant level of 95%, 302 sample was required for the study.

The study participants were selected through sequential sampling method. Data were collected via face-to-face interviews by one trained interviewer using a structured questionnaire.

The questionnaire included 24 questions about participant's demographic and fertility characteristics, 14 questions to assess the level of knowledge, 11 statements related to attitudes towards Pap smear, and 10 questions focused on the behaviour and practice of the participants.

The knowledge question was completed by only those who had heard about the Pap smear, while the attitude statements by all of the subjects (those who had heard and not heard about the Pap smear). For those who claimed to have not heard something about Pap smears, before bringing up the attitude questions, the researcher explained briefly about Pap smear (i.e. Pap smear detects cervical cancer. It is taken after placement of women in lithotomy position and insertion of a speculum into vagina and then the specimen is sent to the pathology lab).

Content validity of the questionnaire was determined using the comments of eight experts including gynecologists and midwifery faculty members and its reliability using test-re-test.

Knowledge questions had three options. To calculate knowledge score, correct answers were given score 1 and incorrect or "unsure" answers were given score 0. Attitude statements had four options which were rated on a 1-3 points. To produce a total knowledge and attitudes score, the scores were summed and then were converted to 0-100 to make the total scores more informative. Higher score reflects a higher knowledge or better attitudes about Pap smear. Total knowledge score was classified into three level; scores 0-33.3 " weak ", scores of 33.4-66.6 level of " medium " and a score of 66.7 or higher level of " good ". Attitudes score was classified into 0-50 " negative attitude " and 50 and upper " positive attitude ".

We used the SPSS ver.13 for data analysis. Chi-square test was used to determine the relationship between the knowledge and attitudes and practice.

The study was approved by the Ethics Committee at Tabriz University of Medical Sciences and all participants gave informed consent before participation.

Results

Mean age of the participants was 32 (SD 12) year, the majority (93%) were housewife and withdrawal was most common method (47%) used by them for contraception. Other characteristics of the participants are presented in table 1.

Less than half of the respondents (44.3%) had heard about Pap smear. Among those, gynecologists or other health providers were mentioned as the greatest main source of information (Table 1).

Only 95 (27.1%) of the women had had Pap smear at least once. Among those, 84 (88.4%) have had only once, 9 (9.5%) twice and 1(1.0%) three times within the last 6 years. Most women (99%) reported their preference to have their Pap smear test by a woman, and 43.4% preferred to have it at a private clinic (data not presented in table).

The most common reason for participating in cervical cancer screening was physicians' or other health care workers' advice and the most common reason for non-participation was no physicians' recommendation and lack of knowledge about Pap smears (Table 2).

Table 1: Demographic characteristics of the study participants (n= 350)

	n (%)	
Age (year)	≤20	59 (16.9)
	21-30	114 (32.6)
	>30	177 (50.6)
Age at first marriage (year)	≤15	68 (19.4)
	16-20	172 (49.1)
	21-25	73 (20.9)
	≥26	37 (10.6)
Gravid	0	32 (9.1)
	1-3	248 (70.9)
	≥4	70 (20.0)
Contraception	Withdrawal	166 (47.4)
	Hormonal methods	49 (14.0)
	Condom	27 (7.7)
	IUD	17 (4.9)
	Others	59 (16.9)
	Menopause	32 (9.1)
Occupation (Housewife)	324 (92.6)	
Place of residence (Urban)	190 (54.3)	
Having insurance	184 (52.6)	
Education level	Illiterate	64 (18.3)
	Primary and Guidance	191 (54.6)
	High school and college	95 (27.1)
Reason for referring to clinic	Vaginal infection	108 (30.9)
	Prenatal care	102 (29.1)
	AUB	40 (11.4)
	Presentation of diagnostic tests	30 (8.6)
	Abdominal pain	29 (8.3)
	Urinary problem	16 (4.6)
	Others	25 (7.1)
	Family and Friends	22 (6.3)
Main source of information	Midwives	27 (7.7)
	Gynecologists	46 (13.1)
	General physicians	3 (0.9)
	Public Health Center workers	35 (10.0)
	Books/ newspapers/ Internet	22 (6.2)
	Not heard about Pap smear	195 (55.7)

Mean (SD) of knowledge score of the women who had heard about Pap smear was 59.4 (24.3) from the possible range of 0-100. Among those who had heard about Pap smear, 26 (16.8%) had weak knowledge, 66 (42.6%) medium knowledge and 63 (40.6%) good knowledge about it; only 48 (30.9%) were aware that cervical cancer can be detected by Pap smear before manifestation of its symptoms, 46 (29.7%) knew that Pap smears can reduce deaths from cervical cancer and 50 (32.2%) knew that a Pap smear should be continued after menopause (Table 3). There was a significant relationship between knowledge level of the women

with a history of Pap smear ($p < 0.001$). History of Pap smear among women with good knowledge was 79.4%, with medium knowledge 54.5% and with weak knowledge 34.6%.

Table 2: Reasons cited for having and not having Pap smear by the women

	n (%)	
Reasons for having Pap smear (n=95)	Physician' or other health providers' advice	76 (80.0)
	Self-study about Pap smear	14 (7.14)
	Discomfort in the genital tract	3 (3.2)
	Getting information from the Mass-media	2 (2.1)
Reasons for not having Pap smear (n=255)	No physicians' or other health providers' recommendation	133 (52.2)
	Lack of knowledge about Pap smears	55 (21.6)
	Negligence, despite having knowledge about Pap smear	28 (11.0)
	Not feeling any discomfort	14 (5.5)
	Embarrassing	8 (3.1)
	Lack of time	6 (2.4)
	Imagination that Pap smear is painful	5 (2.0)
	Fear of the test result	3 (1.2)
Not important to your health	2 (0.8)	
Economic problem	1 (0.3)	

Mean (SD) of attitudes score of all the participants was 48.5 (11.6) from the possible range of 0-100. 143 (40.9%) of the women believed that Pap smear is unnecessary if there is no signs and symptoms and 167 (47.7%) believed that the Pap smear is uncomfortable or embarrassing (Table 4). Women with positive attitudes had significantly higher history of Pap smear compared women with negative attitudes (38.2% vs. 14.6%, $p < 0.001$). There was a significant relationship between the knowledge and attitudes ($p = 0.01$). Positive attitude in women with good knowledge was 68.3%, with moderate knowledge 75.8% and with weak knowledge 46.2%.

Discussion

The results indicate the women's inadequate knowledge and practice about Pap smear. Less than half of the women had heard about the Pap smear, and only about a quarter of them have had a Pap smear at least once. Even among those who had heard about the Pap smear, only 40% had good knowledge about Pap smear.

Table 3: Frequency distribution of responses to knowledge statements among women who had heard about Pap smear (n= 155)

statements	true	false	unsure
Pap smears is most helpful way to detect pre-cancer and cancer of cervix	112 (91.6)*	0 (0)	13 (8.3)
Women should have Pap smears at least every three years	130 (83.8)*	2 (1.2)	23 (14.8)
Pap smear is not able to detect pre-cancerous cells before manifeastation of its symptoms	17 (10.9)	48 (30.9)*	90 (51.0)
The purpose of the Pap smear is to detect abnormal cells in the cervix	92 (59.3)*	1 (0.6)	62 (40.0)
Pap smear is not successful in reducing incidence and mortality of cervical cancer	21 (13.5)	46 (29.7)*	88 (56.7)
Pap smear is able to detect all types of female genital cancer	54 (34.8)	29 (18.7)*	72 (46.4)
Pap smear is a non-invasive and relatively inexpensive method	112 (72.2)*	8 (5.1)	35 (22.5)
Women should have Pap smear since the onset of sexual activity	112 (72.2)*	7 (4.5)	36 (23.2)
In Pap smear cervical cells are examined	104 (67.0)*	4 (2.5)	47 (30.3)
Pap smears can be performed at both menstrual and non-menstrual period	9 (5.8)	107 (69.0)*	39 (25.1)
A woman should not have sex 24 hours before having a Pap smear	95 (61.2)*	3 (1.9)	57 (36.7)
Pap smears should be discontinued after menopause	24 (15.4)	50 (32.2)*	81 (52.2)
If someone is having a normal Pap smear, she does not need Pap smears in the future	5 (5.8)	107 (69.0)*	39 (25.1)
There is no need to have a Pap smear if it is not administered by a doctor	18 (11.6)	114 (73.5)*	23 (14.8)

* Correct answer

Table 4: Frequency of agreement with each of attitude statements about Pap smear

statment	All women (n=350)	Women heard about Pap smear (n=155)	Women not heard about Pap smear* (n=195)
It is painful to have a Pap smear	38 (10.9)	21 (13.5)	17 (8.7)
Having Pap smear is unpleasant and/ or embarrassing	167 (47.7)	73 (47.1)	94 (48.2)
It is difficult to take time off to go and have a Pap smear	22 (6.3)	13 (8.4)	9 (4.6)
It is difficult to get to the Pap smear clinic	40 (11.4)	14 (9.0)	26 (13.3)
Being busy and the priotizing other things is a bariior to have a Pap smear	41 (11.7)	14 (9.0)	27 (13.8)
Pap smear is unnecessary if there is no signs and symptoms	143 (40.9)	27 (17.4)	116 (59.5)
It is unnecessary to go only for Pap smear test	117 (33.4)	27 (17.4)	90 (46.2)
Going for Pap smear screening is too expensive	65 (18.6)	18 (11.6)	47 (24.1)
I am afraid that something wrong will be detected if I go for Pap smear test	29 (8.3)	20 (12.9)	9 (4.6)
I am uneasy about talking about cancer	120 (34.3)	58 (37.4)	62 (31.8)
I would be worried if I was found to have early signs of cancer	65 (18.6)	45 (29.0)	20 (10.3)

*After explaining the Pap smear

In a study in Kerman 81% of the women were aware about Pap smears and 27% of have had a Pap smear test at least once (13). These rates in a study in Arak were reported 55.5% and 49.6%, (14) and in another study in Iran 60.8% and 41.6% (15), respectively. In a study in Yazd, the history of Pap smears was reported 29.3% (16).

In a study on Vietnamese women born in Australia 87% of the women heard about Pap smear and 75% had had a Pap smear (17). This percentages in a study on the American women-Vietnamese in California were reported 74% and 76%, respectively (18). Idestrom and colleagues in Sweden reported

that 95% of the subjects were aware of the Pap test for cervical cancer screening (19).

These values indicate that the subjects' awareness and performance about Pap smear was very low compared with the results of studies in other countries and even is lower than most studies in other parts of Iran. Also, frequency of women who heard about Pap smear, but did not have it was higher compared with the results of studies in the other countries and some other studies in Iran. The differences could be due to differences in socio-demographic profile and/or study setting, as this study was conducted only on women admitted to one

public hospital mostly to take a treatment but the other studies in Iran were mostly conducted on women referring to various health centers mostly for regular health care.

Results of this study about positive relation between attitudes and performance of the screening is consistent with results of other studies (20, 21). Seow et al believe the means of increasing the acceptance of the Pap smear are culture-specific and must address the appropriate health beliefs and attitudes. Such efforts should include not only influencing awareness and perceptions through public education but also reducing barriers by creating an appropriate environment for the delivery of this important health service (22).

Nearly half the women in this study stated that Pap smear is uncomfortable and embarrassing and 41 percent believed that Pap smear is unnecessary if there is no signs and symptoms. These frequency of negative attitudes are much higher than results of a study on women in Fijian and Hindi which were reported 26% and 19%, respectively (23).

This study documented that common reason for non-participation was no physicians' and other health providers' recommendation and lack of knowledge about Pap smear. These findings are almost consistent with results of the study in Kerman (13).

Coughlin and colleagues reported that reasons for not receiving a Pap smear by women in U.S included lack of physician recommendation, haven't had any problems and too painful and unpleasant to be tested (24). Embarrassing and painfulness of Pap smear procedure were reported as common main reasons for not doing a Pap smear in study in United Arab Emirates(25). However in our study, embarrassing mentioned by only a few women as the main barrier.

Some studies have shown that physician recommendation to do a cancer screening test is one of the strongest independent predictors of a woman's decision to be screened (26, 27). This is also consistent with our results.

Results of this study indicate an urgent need to intervene to promote the performance. Considering lack of knowledge mentioned as most common main reason for the poor performance and recommendation of physicians or other health staff as the most common reason mentioned to have the test, all health staff should consider every contact with the women as an opportunity to educate and encourage them to do regular Pap smear. The staff should inform their clients on the purpose and importance of this

screening and benefits of early detection and treatment of cervical cancer. Research is recommended to identify provider performance on client education in this area, barriers for their good performance and how to promote provider performance.

Using other suitable and inexpensive information, communication and educational methods like Mass-media may also be useful to educate women in this area and their effectiveness should be studied.

Because of low literacy of most participants in this study, we collected all data using face-to-face interview. In order to prevent reporting bias by the participants, we tried to do all interviews in a private area after complete explaining of purpose of study. However, it may affected some of the results, specially the attitude part.

Conclusion

The knowledge and practice of the women was inadequate and need to be promoted. Considering the main reason mentioned by the participants for not having the test, it is essential that all health providers consider every contact with the women as an opportunity to educate and encourage them to do regular Pap smear.

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