



ORIGINAL ARTICLE

The Investigation of the Effectiveness of Training and Telephone Recalling To the Studied Women on Their Attendance for Pap smear Screening Test

Ghazal Norouzi¹

¹Shahid Beheshti Medical School, Shahid Beheshti University of Medical Sciences, Tehran, Iran

ABSTRACT

Cervix cancer is the most common cancer after skin, breast and lung cancer among women and cervix cancer is the second most common capital all over the world. Based on significance of study with the aim of investigation of effectiveness of training and telephone recalling to studied women regarding Pap smear screening test on their attendance to conduct Pap smear test. This study is a control semi-empirical intervention study as pre-test and post-test. The study population is all the women referring to Sadderband health center in 2014. The sampling method is random and 25 women are in intervention group and 25 people in control group and they had follow up for two months with phone calls. They were called and the intervention group and after introduction of researcher as the doctor in the center in a conversation of 5-6 min of uniform text, some explanations were given regarding cervix cancer and pap smear position, the test method and its costs. The data collection instrument was questionnaire and the data was obtained by the researcher through phone call and was registered in the questionnaire. The age mean of women in intervention group is 37 years and 35 years in control group and there was no significant difference between two groups in terms of age. Before telephone training, intervention and control groups were investigated in terms of demographic variables and context variables and there was no significance difference between two groups. Also, 56% of respondents had no information of cervix cancer but 64% recognized Pap smear test and 48% found that by Pap smear test, they can avoid cervix cancer. 82.4% of respondents state the most important reasons of not performing Pap smear test as costs, time-consuming, painfulness, the lack of belief in importance of pap smear test and disturbance in sexual intercourse. There was no significant difference between intervention and experiment groups in terms of pap smear test. The barriers to the attendance of women to health centers for Pap smear test (economic costs, time-consuming, disturbance in sexual intercourse and painfulness of pap smear test) should be eliminated to some extent and women should be sensitive to this test.

Keywords: Women health, Cervix cancer, Pap smear, Telephone training

Received 09.11.2014

Revised 11.12.2014

Accepted 05.02.2015

INTRODUCTION

Cervix cancer is one of the main mortality causes of women all over the world and its extension is as new 500 thousands cases are reported and it is the second common cancer among women [1]. Sexual intercourse at young age, variety of people in sexual intercourse without using condom and smoking are dangerous factors of this disease [2]. Cervix cancer due to a long period before invasion, suitable screening plan and effective treatment of initial lesions is recognized as preventive cancer [3].

Unfortunately, about 0.5 million women with cervix cancer are diagnosed all over the world [4], of which 80% are diagnosed in developing countries [5]. Cervix cancer is the seventh cancer all over the world with 529 thousands new cases in 2008. In the communities with active screening plans, in the past 30 years ago, mortality rate of this type of cancer is reduced by 50%. Based on the studies in Sweden, 95% of women were informed about screening plans of cervix cancer and they attended at least one for this text. In 1950s, cervix cancer screening was started by the discovery of smear papanicolaou. By introducing Pap smear as an important measurement for cervix cancer screening, since 1950, this disease prevalence is reduced about 79% [6]. Pap smear is the most effective screening test. Also, most of epidemiologic data show that by introducing Pap smear in an organized screening plan, this cancer and its mortality are reduced significantly in most countries and it is the best reduced trend in Northern European countries. Cervix cancer in Finland, Sweden, Denmark and Island are reduced after 1960 as 50% [7]. Before

development of Pap smear, cervix cancer mortality was reported as 25% in US and it was similar with the mortality rate of this disease in some developing countries [8].

Based on country report of cancer cases record, cervix cancer is reported to 7.1% among Iranian women in various provinces [6]. One of the effective preventive behaviors of this disease is performing Pap smear test. Pap smear test is an effective screening method to evaluate cellular changes of cervix before turning into invasive cervix cancer and it is recommended for one, two or three years among women aged 20-65 years old. This can reduce the mortality of cervix cancer to 90%. Generally, this test aims to achieve the start or the lack of disease. From economic aspects, cervix cancer imposes many costs on family and society. These costs include diagnostic radiology expenses, blood tests, surgery and operation room, radiotherapy and other medical and health cares and the costs of performing pap smear are less. On the other hand, life expectancy in these patients depends upon disease diagnosis stage [10]. Also, regarding the importance of Pap smear test, we can say the lack of regular screening is with the double or six times danger of cervix cancer [4]. Unfortunately, many women don't receive pap smear for many reasons and the most important reasons of not doing pap smear is the fear of cervix cancer, painfulness of test and relevant shame [11]. Jalalvandi and Khodadustan in the study reported that only 17% of Iranian women in Arak performed pap smear test regularly [10]. Also, Baghianimoghadam in a study in Yazd stated that only 14% of investigated women performed Pap smear test more than once [12]. Onsori et al in a study on women in Parand and Robotkarim found that there was a significant association between increasing age and information of people regarding this test and education and awareness of the mentioned test [13]. As cervix cancer is the second common gynecological cancer and its best and most exact screening method is pap smear, training and encouraging women to use this health service is of great importance. As it was said before, the women don't use this effective and cheap service presented in all state health centers as well. In the similar studies to find the economical and effective method to improve using this test is group training as class or using recalling e-mail or pamphlet. This study investigated the training and telephone recalling to patients effectiveness. It is hoped this study can present useful results to increase women participation in Pap smear test and improving their health and their society.

METHODS

This study is a control semi-empirical intervention study of pre-test and post-test. The study population is all women covered in SaadDarband health center in 2014. The sampling method is random and 25 women are in intervention and 25 people in control group and they are followed up for two months. Data collection instrument is questionnaire and the information is obtained by phone by the sample and recorded in the questionnaire. The questionnaire has two parts: First section includes 6 questions in demographic and context information and the participants information regarding age, education, marital status, number of children, one's job and job of household head and the second part is including the questions of severity of information regarding Pap smear test and the reasons of not doing it. After data collection, the data are analyzed by SPSS software, version 16.

$P < 0.05$ is considered as significance level. The study method is as in the book formulated by midwife of SaadDarband health center, all studied women for this test are recorded based on country protocol, of which 25 people are considered as intervention and 25 people as control group as randomly. By the information in each file, each of them was called and the intervention group was explain after introduction of researcher as the doctor in the center in a conversation of 5-6 min of uniform text and some explanations were given regarding cervix cancer and pap smear position, the test method and its costs. One month later in a telephone call, the test was asked (in state or private center) and if she hasn't performed it yet, the reason was asked and some explanations were given again and after one month after the second call, they were called again and test was followed up. For control group in the first contact, only among general questions of one's health, his conclusion criterion was assured by an indirect question and 2 months later in a recall, the test was followed up again.

FINDINGS

This study was conducted on 25 women in intervention group and 25 women in control group. The mean age of women in intervention group was 37 years and 35 years in control group and there was no significant difference in terms of age in two groups. Before telephone training plan, intervention and control groups were investigated in terms of demographic and context variables and there was no difference in this regard between two groups and the results are shown in Table 1.

Table 1- The comparative investigation of context variables among control and intervention groups

Variable Group		Total N (%)	Intervention group N (%)	Control group N (%)	Significance level
Marital status	Single	0	0	0	0.806
	Married	50(100%)	25(50%)	25(50%)	
Education	Illiterate	1(2%)	0	1(100%)	0.857
	Elementary	11(22%)	7(63.6%)	4(36.4%)	
	Guidance	3(6%)	2(66.7%)	1(33.3%)	
	High school Diploma	23(46%)	9(39.1%)	14(60.9%)	
	Pre-University	(24%)12	7(58.3%)	5(41.7%)	
Job	Housewife	46(92%)	24(52.2%)	22(47.8%)	0.307
	Employed	4(8%)	1(25%)	3(75%)	
Household head job	Un-employed	1(2%)	1(100%)	0	0.300
	Businessman	20(40%)	13(65%)	7(35%)	
	Governmental work	29(58%)	12(41.4%)	17(58.6%)	
Age	21-30	12(24%)	4(33.3%)	8(66.7%)	0.519
	31-40	21(42%)	12(57.1%)	9(42.9%)	
	41-50	14(28%)	8(57.1%)	6(42.9%)	
	51-60	3(6%)	1(33.3%)	2(66.7%)	

Table 2- The descriptive results of intervention group questions

Item	Response	F	%
Cervix cancer awareness	Yes	4	16%
	No	14	56%
	To some extent	7	28%
Awareness about pap smear	Yes	16	64%
	No	5	20%
	To some extent	4	16%
Awareness of avoiding cervix cancer by pap smear test	Yes	2	48%
	No	2	8%
	I don't know	5	20%
	I don't know	6	24%
The most important reason of not performing pap smear	Fear	1	5.9%
	Shame	1	5.9%
	No access	1	5.9%
	Others	14	82.4%
Awareness of next period of pap smear test	True	6	75%
	False	1	12.5%
	I don't know	1	12.5%

Table 3- The experience of performing pap smear test after education intervention among two mentioned groups

Group Variable		Total N (%)	Intervention group N (%)	Control group N (%)	Significance level
Pap smear test	Yes	9(19.1%)	5(55.6%)	4(44.4%)	0.569
	No	38(80.9%)	21(55.3%)	17(44.7%)	

The information in Table 2 shows that 56% of respondents had no information of cervix cancer but 64% know pap smear test and 48% know that pap smear test can avoid cervix cancer. 82.4% of respondents consider the most important reason of not performing pap smear test is other choices as costs, time

consuming, painfulness, not believing in the importance of pap smear and disturbance in sexual intercourse.

Table 3 shows the record of performing Pap smear test after educational intervention among the studied groups as it is 55.6% in intervention group and 44.4% in control group and there is no significant difference between them.

DISCUSSION AND CONCLUSION

Cervix cancer is one of the most common cancers in developing countries and the second common cancer of women in the world. This disease is prevented considerably but it is one of the most common mortality rate of cancer among women in developing countries. It is also the cause of 10% of mortalities of cancer among women [15]. About 80% of patients live in developing countries and annually there are about new 450 thousands invasive cervix cancer about 1 case per min in these countries and as the cause of mortality rate of more than 275 thousand people. About 2% of women suffer from this cancer before 80 years old [16]. Pap smear test is one of the most important parts of women tests and if it is done correctly and interpreted well in 98% cases, is a good guidance to diagnose cervix cancer [17]. As many of patients live in 30 or 40 decades of their life, they play important role in improving and supporting family and this disease has great impact on society [13]. The findings of various researches show that women participation in screening plans and awareness and their performance in these plans are different in various communities. Although in the past 60 years, pap smear had considerable success in various countries regarding screening and early cervix cancer diagnosis, cervix cancer is the fifth common cancer in Iran. As pap smear test is performed since 1991 in Iran health system, it is an effective, cheap test in screening cervix cancer, the various studies show the lack of acceptance of this test by women. In a study done to determine awareness of women in Arak city, less than half of participants were aware of pap smear and they performed it and only 5.17% performed pap smear regularly with the distance less than 36 months [18]. The most important limitations of the present study are economic costs, time-consuming of pap smear test, disturbance in sexual intercourse and painfulness of pap smear test. As shown in the results, before intervention, there was no significant difference between intervention groups and control and after doing intervention, pap smear test conduction was not significantly increased among the participants of intervention group and it showed the lack of effect of plan to improve pap smear test among women. Pirzade and Mazaheri in the study as face to face training sessions and semi-empirical study among 70 women attending two health centers in Kuhdasht of Lorestan and it was done in two groups (65 women in intervention groups and 35 women in control groups). The interventions were done only in three sessions for intervention group. Each training session was 45-60min. The results were not consistent with the findings of the present study [14].

REFERENCE

1. Aldrich T, Becker D, Garcia SG, Lara D. (2005). Mexican physicians' knowledge and attitudes about the human papillomavirus and cervical cancer: a national survey. *Sex Transm Infect*, 81(2): 135-41.
2. Price JH, Easton AN, Telljohann SK, Wallace PB. (1996). Perceptions of cervical cancer and Pap smear screening behavior by women's sexual orientation. *J Community Health*, 21(2): 89-105.
3. Berek JS, Novak E. Berek and Novak's gynecology. (1199) Philadelphia: Lippincott Williams & Wilkins, 1232: 2007.
4. Nieminen P, Kallio M, Hakama M. (1995). The effect of mass screening on incidence and mortality of squamous and adenocarcinoma of cervix uteri. *Obstet Gynecol*, 85(6): 1017-21.
5. Winkler J, Bingham A, Coffey P, Handwerker WP. (2008). Women's participation in a cervical cancer screening program in northern Peru. *Health Educ Res*, 23(1): 10-24.
6. World Health Organization. (2006). Cervical Cancer Screening Programmed Managerial Guidelines. Geneva: WHO.
7. Kitchener, HC, Castle PE, Cox JT. (2006). Chapter 7: Achievements and limitations of cervical cytology screening. *Vaccine*, 24: 63-70.
8. Scott, J. et al. (2006). Translated by Teimoru et al., Midwifery and Denforth women diseases. Tehran. Tayeb edition. 1, 648.
9. Center for disease control Non communicable Deputy Cancer Control Office. (2008). Iranian Annual of National Cancer Registration Report. Tehran: Ministry of Health and Medical Education, p. 26-34.
10. Jalalvandi, M. Khodadostan, M. (2005). Knowledge and practice of married women about Pap smear. *Iran Journal of Nursing*, 18(41-42): 139-44.
11. Fylan, F. (1998). Screening for cervical cancer: a review of women's attitudes, knowledge, and behaviour. *Br J Gen Pract*, 48(433): 1509-14.
12. Baghyani Moghaddam, MH. (2003). Survey on knowledge, attitude and practice of 15-49 years age group married women related to Pap smear test in Yazd city in 2001. *Journal of Mazandaran University of Medical Sciences*, 13(40): 79-85.

13. Onsoni, Kh., Zandi, Q., Abdolahi, M., Siri, Masume. (2013). The investigation of the awareness of women in Parand and Robatkarim regarding Pap smear test. Cellular biotechnological-Mololic journal of fourth period, NO. 13, Winter.
14. Pirzadeh, A, Mazaheri, MA. (2012). The effect of education on women's practice based on the health belief model about pap smear test. Int J Prev Med. 3(8): 585-90
15. Ferlay, J., Shin, HR., Bray, F., Forman, D., Mathers, C., Parkin, DM. (2010). Estimates of worldwide burden of cancer in 2008: GLOBOCAN 2008. Int J Cancer, 127(12):2893-917.
16. Kabir, M., Jliyasu, Z., Abubakar, IS., Mahboob, S. (2005). Awareness and practice of cervical cancer screening among female health professional in Murtala Mohammed specialist hospital, Kano. Niger Postgrad Med. 12(3):179-182.
17. Pernoll, M. (1987) Benson, Rolphe Current Ob. & Gy. diagnostic treatment, California, Lonye medical.
18. Jalalvandi, M. (2005). Khodadustan, The investigation of the awareness and performance of married women regarding pap smear. Iran nursing journal. 41, 42.

CITATION OF THIS ARTICLE

Ghazal Norouzi. The Investigation of the Effectiveness of Training and Telephone Recalling To the Studied Women on Their Attendance for Pap smear Screening Test. Bull. Env. Pharmacol. Life Sci., Vol 4 [5] April 2015:57-61