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Effect of Educational Program on Saudi, Women' Knowledge, Attitude Regarding Cervical Cancer and Early Detection by Pap Test

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Research Article

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Abstract

Background: Cancer is increasingly becoming the disease of the century, especially cervical cancer that is now the second most common Gynecologic malignant tumor worldwide after breast cancer to cause death among the female population.

Methods: This was a quasi experimental study (pretest and post test for the two group) aimed to evaluate the effect of an educational program on women' knowledge, attitude and practice regarding cervical cancer and early detection by pap test.

Duration of the study: This study was carried out from July to December 2006.

Setting: The study was conducted in family medicine at King Faisal specialist hospital and centers Saudi Arabia.

Study Sample: The study sample was composed of 210 which was Total coverage was used, The researcher choose a purposeful, convenient sample of Saudi women between the ages of 15-65 years resident in Riyadh, according to eligibility for examination in the Family Medicine Department where the research took place, during July and December 2006, and who voluntary accepts to participate.

Data Collection: Meanly by a structure self administrative questionnaire, after the base line knowledge, training program was conducted then same questionnaire was filled. Questionnaire was contained two parts: Part one demographic data part two regarding PaP test knowledge. The data obtained from the questionnaire (basic information and knowledge evaluation) were entered into the Statistical Package for Social Sciences, (SPSS) version 16) program using the Independent sample *t*-test to determine whether there is a significant difference at the level 0.05 in the categories listed in the questionnaire. Descriptive statistics (mean, Standard deviation, percentage) was used to describe the study samples and variables. And knowledge scores before and after the educational intervention at p-value <0.05.

Results: The study results showed poor knowledge regarding pap test 88% of women, in both control and study group in base line survey, were statistical significant improvement of knowledge among the study group, regarding the cervical cancer, Important of screening for detection of cervical cancer , the relation between the Pap test and early detection of cancer. Compare to the control group, there was improvement among the intervention group on practicing Pap test rate from (45% to 70%) after the correction the wrong concept and belief addressed by the study during health educational program. An educational program improves patients'

knowledge and attitude regarding cervical screening and its early detection of cervical cancer. The mean knowledge scores improved from 1.73 ± 1.17 to 3.41 ± 1.07 after 3 months which significantly different (P = 0.000 < 0.05).

Discussion: The NHS (National Health Services) Cervical Screening Programme (2001) excluded women under the age of 25 years justifying the reason that the invasive cancer is extremely rare. Although In 1976-1996, a study was carried out which analysed 348,419 women in Bristol. The outcome for every 10,000 women screened aged 20-64; 1564 were found to have abnormal cytology; 818 underwent further biopsy. So we were determent to have our respondent, in the age group 25-64. The knowledge deficits regarding if Pap smear is important, the control population think that Pap smear is not important according to the study by (Julian Peto et al 2004) and (Manjiet al., 1999) stated that once the disease identified by cytology, (Pap smear) simple therapeutic procedure and continuing surveillance could be used to prevent further progress to invasive cancer.

Conclusion: The result of present study revealed that the health educational program was effective on the Pap test. Also; this study proves that educational program can play an important role in educating women, towards Pap test practice and attitude.

Keywords: Cervical cancer; Saudi women; Knowledge

Background

Cancer is increasingly becoming the disease of the century, especially cervical cancer that is now the second most common Gynecologic malignant tumor worldwide after breast cancer to cause death among the female population [1]. This disease originates at the squamocolumnar junction of cervical canal. It most commonly arises in an area known to undergo considerable changes during late fetal life, adolescence and first pregnancy [2].

Problem Statement

Cancer of the cervix is the most common cancer and the leading cause of death from cancer among women in developing countries. It is estimated that world- wide 500,000 cases of cancer cervix occur every year, with 200,000 to 300,000 dying from the disease annually. The great majority of these (80%) are in developing countries [3]. In sub-Saharan Africa the peak age of cervical cancer is 35-45 years, and up to 70% are premenopausal [4].

Problem Identification

Cervical cancer is an important women's health problem, especially in developing countries, where an estimated 190,000 women die from the disease each year [5].

The majority of women present in an advanced stage of the disease and the estimated new cancer cervix cases per year are about 470,000 of which about 380,000 (81%) occur in the developing world [6].

Cancer is increasingly becoming the disease of the century, especially cervical cancer that is now the second most common Gynecologic malignant tumor worldwide after breast cancer to cause death among the female population [1]. This disease originates at the squamocolumnar junction of cervical canal. It most commonly arises in an area known to undergo considerable changes during late fetal life, adolescence and first pregnancy [2].

Cervical in Saudi Arabia

Cervical cancer is a leading cause of sickness and death of women worldwide it is the 4th most frequently diagnosed cancer among Saudi women [1]. However, despite the fact that screening for cervical cancer is an inexpensive method proven to reduce the incidence of this disease, the adoption of organized, provincial screening programs are not existence. As a result, many women continue to come in late stage and die needlessly [7] (Table 1).

Cervical intraepithelial neoplasia	No. of Saudi patients /Total cases	Age range	The percentage in developed countries	Age range
CIN 1 and 2	38/3,088=1.2%	23-53	2.60%	25-29
CIN 3	6/3,088=0.19%	35-51	0.50%	35-39

Table 1: CIN in Saudi Arabia.

Source: Manji et al. (1999) [1].

The results of this table suggest that women in Saudi are characterized with lower prevalence of CIN 1, 2 ,3 with a wider age range of (23-53) compared to developed countries [8].

Justification and Rationale of Cervical Cancer

General principles of screening: Criteria for deciding whether or not screening is appropriate include:

- Is the disease a public health problem?
- Is the natural history of the disease understood?
- Is there a recognizable latent or early symptomatic stage?
- Is there an acceptable treatment for the disease?
- Is there consensus on whom to treat?
- Are facilities for screening and treatment available and accessible?

Source: Adapted from PATH 2000[9].

Women who have access to effective prevention programs are less likely to develop cervical cancer than women who do not. It is not surprising then that the incidence of cervical cancer varies dramatically between regions of the world, as well as between different socio-demographic groups within a given region. In the mid-1980s, approximately 40% to 50% of women in developed countries had been screened in the preceding five years, compared to only 5% of women in developing countries (WHO 1986) [10]. Although these data are old, there are few indications that the situation has changed significantly since then in most developing countries. For example, more recently, only 8% of more than 20,000 South African women 20 years of age and older reported having had a Pap smear in the preceding five years [11]. Likewise, in a rural district in India, where more than 120,000 women were interviewed, less than 1% reported having ever been screened. In developed countries where women regularly receive cytologic screening, programs have led to decreased cervical cancer-related mortality [12]. In most developing regions, however, cervical cancer mortality rates have not declined substantially despite attempts to establish screening programs [13].

Objectives of the Research

General objective

- To evaluate the effect of an educational program on women' knowledge, attitude and practice regarding cervical cancer and early detection by pap test.

Specific objectives

- To assess the basic women' knowledge, attitude and practice regarding cervical cancer and early detection by pap test.
- To develop and implement the health educational program for pap test.
- To evaluate the impact of the health educational program on knowledge, attitude and practice regarding cervical cancer and early detection by pap test.

Study Design

The study is a Quasi experimental with pretest and post test two group design.

Duration of the study

This study was carried out from July to December 2006.

Setting

The study was conducted in family medicine at King Faisal specialist hospital and centers Saudi Arabia.

Study Sample

The study sample was composed of 210 which was Total coverage was used, The researcher choose a purposeful, convenient sample of Saudi women between the ages of 15-65 years resident in Riyadh, according to

eligibility for examination in the Family Medicine Department where the research took place, during July and December 2006, and who voluntary accepts to participate.

Inclusion Criteria

a) Any client capable to read and write,
b) Must be married according to culture
c) Client between, 15- 65 years, of age, and women, not have cervical cancer.

Exclusion Criteria

Women, with more than 65 years old and Women, affected by cervical cancer

Tools and Methods of Data Collection

One tool was used in the study. Meanly a structure self administrative questionnaire, after the base line knowledge, training program was conducted then same questionnaire was filled.

Tool consists of two parts: Part one structured self administrative questionnaire:

Which includes: Demographic data such as (age, sex, education, occupation and family health history)?

- Part two consisted, Clients knowledge, health beliefs and practice towards Pap test, definition, causes, risk factors, signs and symptoms, complications, investigations, prevention and control.

Validity of Data

Three steps were taken to enhance the content validity of the study questionnaires. First, a relevant literature review was done with the purpose of choosing number of variables for the study that might influence effect of health education program for Pap test. Second, the content validity of the tools (Pap test Knowledge and practice) for this study was conducted by a group of specialists including nurse educators, experienced researchers. Third, the questionnaire was pre-tested in a pilot study.

Educational program design

The program was designed to improve client's knowledge and practices of Pap test, included content related to a booklet which was prepared and distributed after the program implementation for the intervention group. Its content developed on after interviewing of pertinent literature related to Pap test and Cervical cancer. These aspects were as the follows:

- Definition of cervical cancer.
- Causes of hypertension.
- Classification of cervical cancer.
- Signs and symptoms of cervical cancer.
- Complications of cervical cancer.
- Investigations: Pap test and cervical caner
- Requirements for Pap test.

(Education programs discuss more in Implementation phase)

Ethical Considerations

Approval from research center office of research affairs was taken to family medicine manager to conduct the Research and the confidentiality of the participants was assured. And this will be for the study only, Respondents was informed that have the right to withdraw at any time if they wished.

Data Analysis: Data Analysis

Data were entered into the computer Statistical Package for Social Sciences, (SPSS) version 16) program using the Independent sample *t*-test to determine whether there is a significant difference at the level 0.05 in the categories listed in the questionnaire. Descriptive statistics of central tendency was used to obtain (mean, Standard deviation, frequency) was used to describe the study samples and variables and knowledge scores before and after the educational intervention at p-value <0.05.

Data Presentation

Data was presented in a form of tables and figures.

Results

Table 2 shows it can be seen that the majority were in age groups (25-34) 36.5% and age group (35-44) 41.9%. There were minor variations between study group and control group. These variations were insignificant, P>0.05 Chi-square =3.61, p=.60, insignificant.

Age	Control Group	Study Group	Total
15-24	23	7	30
%	11.00%	7.00%	9.70%
25-34	80	33	113
%	38.10%	33.00%	36.50%
35-44	84	46	130
%	40.00%	46.00%	41.90%

45-54	18	12	30
%	8.60%	12.00%	9.70%
55-64	4	1	5
%	1.90%	1.00%	1.60%
=> 65	1	1	2
%	0.50%	1.00%	0.60%
Total	210	100	310

Table 2: Distribution of study population and control groups by age.

Chi-square =3.61, p=.60, insignificant.

Table 3 shows the level of education which was 15.8% elementary, 32.9% secondary, 27. % high school, 19.4% university and 4.8% classified as others. There were minor variations between study and control groups which were insignificant (P>0.05).

Education level	Control group	Study group	Total
Elementary	37	12	49
	17.60%	12.00%	15.80%
Secondary	71	31	102
	33.80%	31.00%	32.90%
High	50	34	84
	23.80%	34.00%	27.10%
University	41	19	60
	19.50%	19.00%	19.40%
Other	11	4	15
	5.20%	4.00%	4.80%
Total	210	100	310
	100.00%	100.00%	100.00%

Table 3: Distribution of study population and control groups by educational level.

Chi-square=4.3, p=.360, insignificant.

The majority were married (82.9%) into two groups, (81.4%) of the control group and (86.0%) of the study group. This variation was insignificant, P=0.42.

Marital status	Control group	Study group	Total
Married	171	86	257
%	81.40%	86.00%	82.90%
Single	9	6	15
%	4.30%	6.00%	4.80%
Devoiced	23	6	29
%	11.00%	6.00%	9.40%
Widow	7	2	9
%	3.30%	2.00%	2.90%
Total	210	100	310
%	100.00%	100.00%	100.00%

Table 4: Distribution of study populations and control groups by marital status

Chi-square=2.7, p=.42, insignificant.

Table 5 shows that the majority were unemployed (68.7%).Employment were high among study (40.0%) than control group (27.1%). This variation was significant, p<0.05.

Are you an employee?	Control group	Study group	Total
Yes	57	40	97
%	27.10%	40.00%	31.30%
No	153	60	213
%	72.90%	60.00%	68.70%
Total	210	100	310
%	100.00%	100.00%	100.00%

Table 5: Distribution of study population and control groups by employment.

Chi-square=5.209, p=.022 significant

Table 6 shows that knowledge of Pap smear was higher among the study (85.0%) than the control group (31.4%). This variation was highly significant (p=.00002).

	Control group	Study group	Total
Yes	66	85	151
%	31.4%	85.0%	48.7%
No	144	15	159
%	68.6%	15.0%	51.3%
Total	210	100	310
%	100.00%	100.00%	100.00%

Table 6: Distribution of study population and control groups by Knowledge of Pap smear.

Chi-square=77.81, p=.00002, significant

Table 7 shows that (97.0%) of the study group think that pap smear is important while versus (65.7%) of the control group. This variation was highly significant (P=0.0002).

	Control group	Study group	Total
Yes	138	97	235
%	65.7%	97.0%	75.8%
No	72	3	75
%	34.3%	3.0%	24.2%
Total	210	100	310
%	100.0%	100.0%	100.0%

Table 7: Do you think Pap smear is important?

Chi-square=36.15, p=.0002, significant

Table 8 shows that (89.0%) of the study group think that pap smears help find cervical cancer (33.3%) of the control group. This variation was highly significant (P=0.000).

	Control group	Study group	Total
Yes	70	89	159
%	33.3%	89.0%	51.3%
No	140	11	151
%	66.7%	11.0%	48.7%
Total	210	100	310
%	100.0%	100.0%	100.0%

Table 8: Did Pap smear helps to find cervical cancer?

Chi-square=84.02, p=.000, significant.

Table 9 shows that (70.0%) of the study group know about cervical cancer versus only (13.3%) of the control group. This variation was highly significant (P=0.000).

	Control group	Study Group	Total
Yes	28	70	98
	13.3%	70.0%	31.6%
No	182	30	212
	86.7%	30.0%	68.4%
	210	100	310
	100.0%	100.0%	100.0%

Table 9: Do you know about cervical cancer?

Chi-square=100.61, p=.000, significant.

Discussion

The NHS (National Health Services) Cervical Screening Programme (2001) excluded women under the age of 25 years justifying the reason that the invasive cancer is extremely rare. Although In 1976-1996, a study was carried out which analysed 348,419 women in Bristol [14]. The outcome for every 10,000 women screened aged 20-64; 1564 were found to have abnormal cytology; 818 underwent further biopsy. So we were determent to have our respondent, in the age group 25-64.

The knowledge deficits regarding if Pap smear is important, the control population think that Pap smear is not important according to the study by Julian Peto et al. 2004 and Manji et al. 1999 [1,15] stated that once the disease identified by cytology, (Pap smear) simple therapeutic procedure and continuing surveillance could be used to prevent further progress to invasive cancer. Data show considerable knowledge deficits among control population notably, the questions referring specifically if any relation between cervical cancer and Pap test had one of the highest proportions of knowledge deficits responses. These responses suggest that women don't know linkage between cervical cancer and Pap test. Cervical screening knowledge prevents up to 3,900 cases of cervical cancer per year in the UK [16,17].

Conclusion

The result of present study revealed that the health educational program was effective on the Pap test. Also; this study proves that educational program can play an important role in educating women, towards Pap test practice and attitude.

The study results showed a big gap regarding cervical cancer and screening before the education session. The study, as well, has shown the need for intensive client's education among women undergoing Pap screening. Improving knowledge regarding cervical cancer. Cervical screening may enhance clinical care of the vulnerable population.

Based on the research results, the recommendation will be concerned about the women knowledge and attitude regarding screening:

- Cervical cancer education program
- Offer women cervical smears, guidelines for smear test, follow-up and referrals to specialist clinics.

- Include information about contraceptive pills, smoking cessation and other component of cervical cancer and risk factors
- Future study to know their knowledge and attitude after the program.

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