

Original article

Factors associated with cervical cancer knowledge and practice among Bahraini women

Ibtihal Fadhil¹, Batool Hasan G. Baqer², Fatima Faisal Al Hlwachi², Eman Ahmed Dashti, Nawara Essam BehzadAmina A. Jabbar A. Karim, Samara Al Reefy

¹Medical College, Arabian Gulf University, Manama, Bahrain

²College of Medicine and Medical Sciences, Arabian Gulf University, Bahrain

Abstract

The study was conducted to assess the women's knowledge and attitude towards cervical cancer and cervical cancer screening, to support the health education programs in this field. A total sample of 350 women (n = 350), 70 women from each health center was chosen based on a multistage sampling technique according to a number of 21 health centers that serve the population. One health center from each government was selected based on the population it serves, thus the health center with the highest population number was chosen. The main tool of data collection was a face to face interview questionnaire. When assessing the knowledge, attitude, and practice (KAP) of our sample, we observed that approximately equal percentages (70%) of women have heard of both Pap smear and cervical cancer. Only 47.4% had ever had Pap smear and of those 35.1% had it during a period of 5 years or less. The main source of knowledge for those who have done the procedure is the family physician (30.8%). When asked about the reason behind having a Pap smear, the majority (62.3%) had it during postnatal visits. Nevertheless, those that didn't have it, almost half (46.6%) disapproved to do so because they are healthy even after being told that Pap smear is a painless significant procedure. In conclusion, majority of respondents have a good knowledge about cervical cancer but is not reflected in their practice. The results strongly recommend continued health education for the women which can be achieved through the introduction of this topic into the schools' curriculum and planning educational programs within antenatal and postnatal visits.

Keywords: cervical cancer, Pap smear, awareness, women practice, HPV, cancer registry, KAP

INTRODUCTION

Data reported world wide supported the magnitude of cervical cancer as a cause of death among women. In USA a study conducted in the by the American Social Health Association in 2001 estimated that about 14,000 new cases of cervical cancer are diagnosed each year with over 5,000 women dying of cervical cancer each year^[11]. In a more recent data from the

West Virginia Cancer Registry indicates that in 2002 there were 97 new cases of invasive cervical cancer and 35 deaths attributed to the disease^[12]. While in England and Wales, statistics from 2001 showed that the incidence of cervical cancer was approximately 1 in 10,000 women per annum^[13]. In Kenya cervical cancer accounts for 59% of all documented genital cancers^[10].

In UAE, a study conducted in 1998 revealed that cancer of the breast and cervix ranked first and second as causes of mortality among females^[14]. Several studies have documented the most common risk factors for cervical cancer such as age of first sexual intercourse, multiple sexual partners, smok-

Correspondence to: Ibtihal Fadhil, MBChB, MSC, PhD, Fatima Faisal Al Hlwachi, * * Eman Ahmed Dashti, Nawara Essam BehzadAmina A. Jabbar A. Karim, Samara Al Reefy, ifadhil@hotmail.com

ing, HPV infection, HIV infection, co-infection with chlamydia, poor diet, oral contraceptives,

multiple pregnancies, positive family history of cervical cancer, immunosuppression, lower socioeconomic status, and educational level as known predisposing factors that significantly increase the relative risk of developing cervical cancer^[9-15]. Studies have shown that many women have inaccurate perception of the risk of cervical cancer due to failure to modify inaccurate risk perception^[16-21] that affects women's practice toward prevention and screening.

The kingdom of Bahrain

Is one of the GCC countries located in the Middle East. In mid of 2006, Bahrain's population was estimated to be 698,585 of which 235,108 are non-Bahraini nationals^[1,2].

From the total population, 308,993 are females^[1,2]. Cervical cancer is the 2nd most common cancer site for females after breast cancer. It accounts for 10% of all cancer worldwide^[3,4] 2.4% of total cases of cancer in the Arab world^[5].

Although cervical cancer is not the main cause of death universally, it remains the major gynaecological cancer in under developed countries^[3,4]. In Bahrain, cancer is the second leading cause of death, causing 12.2% of all deaths^[6]. The leading types of cancer among Bahraini females are breast (26.6%) and lung (9.4%)^[7,8].

On the other hand, cervical cancer is the 6th most common malignancy in women with age standardized incidence rate in 2002 being 4.9/100,00 women 8. In 1995 the national screening programs for breast and cervical cancer started and include clinical breast examination for women aged 30 to 64 years and Pap smears for women aged 35 to 64 years^[7]. From data reported in Bahrain, a total of 5,379 women attending periodic screening visits through maternal and child health services in health centers in Bahrain during 2005, 3,654 had a Pap smear of which one showed neoplastic changes^[9].

Therefore, the aim of this study is to assess women's awareness, attitude towards cervical cancer and pap smear test in order to identify key messages required to support the health education programs in this field.

METHODS

Cross sectional descriptive study was done using sample of married females that are attending the primary care centers in Bahrain during the course of the study.

The sample chosen is based on a multistage sampling technique according to a number of 21 health centers that serve the population in Bahrain. One health center from each governorate was selected based on the population it serves, thus the health center with the highest population number was chosen. Five health centres are selected. All married women attending the selected health centres for childhood immunization were asked to participate in the study.

Data collection took place during health center morning and afternoon working hours. The women were interviewed by the researchers using a semi structured questionnaire. The questionnaire collect data related to women demographic data, knowledge and perception with regards to cervical cancer and the most common risk factors, their knowledge and practice regarding pap smear.

A pilot study was performed on a sample of 20 women followed by minor changes were done on the questionnaire Final data managed using SPSS package version 14 and presented in a descriptive way.

RESULTS

A total of 350 married women attending health centers have participated in the study. Most of them are Bahraini (73.3%). The mean age is 35.5 ± 2.01 years. Over third (35.7%) had completed secondary education. Majority (76.6%), are housewives and (44.9%) having less than 3 children. Half of the women studied have family monthly income is less than 500 BD (50.9%). See table 1

Table 2 shows that majority of the women when assessed their knowledge, regarding cervical screening. we observed that approximately (70%) of women are aware about cervical cancer and screening measure. See table 2

The main source of knowledge for those who have done the procedure is the family physician (30.8%). Table 2

When women asked about the reason behind having a Pap smear, the majority (62.3%) had it during postnatal visits (Table 3).

Nevertheless, those that didn't have it, almost

half (46.6%) disapproved to do so because they are healthy even after being told that Pap smear is a painless significant procedure . See table 4

For practice of pap smear , nearly half 47.4% had ever had Pap smear and of those 35.1% had it during a period of 5 years or less (Table 3).

Women knowledge were asked on the most common risk factors for cervical cancer on scale of 1-4 women responded 1 agree to disagree , table 5 shows that majority of women agreed on of possible detec-

tion of cervical cancer before symptoms appear with Pap smear (68%). Finally, the majority of women agreed upon having multiple partners, smoking, STDs and contraception as being risk factors of cervical cancer, and miscarriage not being risk factors. On the other hand, they disagreed that early marriage, diet, increase in the number of pregnancies and low socioeconomic class are risk factors. In addition, most of them didn't know about HPV (78.3%). (Table 2)

Table 1 : Profile of the studied women

Age group	percent
< 20 yrs	2.0
20-29 yrs	27.4
30 - 39 yrs	33.1
40-49 yrs	21.7
50 & Above	15.7
Nationality	
Bahraini	73.7
Non-Bahraini	26.3
Educational level	
Illiterate	11.7
Primary	10.9
Intermediate	12.6
Secondary	35.7
College & higher studies	29.1
Working status	
Housewife	76.6
Working	23.4
Family Income	
< 500 BD	50.9
500 - 1000 BD	32.3
1001-1500 BD	8.9
> 1500 BD	8.0
No. of children	
<3.00	44.9
3.00 - 5.00	38.0
6.00 - 8.00	14.3
9.00 +	2.9

Table 2 : Women knowledge and perception regarding cervical cancer

Women Knowledge	Yes (%)	No (%)
Have you ever heard of Pap smear	68.0	32.0
Have you ever heard of cervical cancer	70.9	21.1
Source of Knowledge		
Family/ Friends	21.8	
Your Family Physician Dr.	30.8	
Gynaecologist.	19.2	
Nurse	3.0	
Newspaper/ Television/ Internet	20.1	
Others	5.1	

Table 3 : Women attitude and practice on cervical cancer screening

Have you ever had a pap smear	Percent
None	52.6
Had one in less than 5 years	12.3
Had one in more than 5 years	35.1
Reason for having pap smear	
during postnatal visits	60.8
During periodic tests	23.5
Due to genital problems	13.3
Other reasons	2
Who would you like to perform the test for you?	
Family Physician/ GP	16.0
Gynaecologist	63.9
Nurse	6.0
Doesn't matter	8.3
None of the above	5.7
Causes for not having pap smear	
The test is painful	13.2
I feel shy	17.6
I feel healthy	46.2
husband refusal	11.0
Fear of results	12.1

Table 4 : Women believes and perception on cervical cancer and common risk factors (percent)

	Agree	Disagree	Not Sure	Don't Know
21) Women have cervical cancer with no symptoms	37.1	36.0	7.4	19.4
22) It is possible to cure this cancer	51.7	25.4	10.0	12.9
23) It is possible to detect cervical cancer before symptoms appear with Pap Smear	68.0	11.1	7.1	13.7
24) Early detection of cervical cancer is good for treatment outcome	83.7	5.1	4.6	6.6
25) Do the following cause cervical cancer				
Early age of marriage	21.4	53.7	10.6	14.3
Multiple Partners (Husband)	58.3	18.9	10.0	12.9
Married	31.7	40.9	10.9	16.6
Smoking	57.7	22.3	9.7	10.3
STD	65.7	9.4	9.4	15.4
No. of Pregnancies	38.6	36.0	10.6	14.9
Contraceptives	53.4	14.3	12.3	20.0
low socioeconomic Class	26.3	51.7	8.9	13.1
HPV (Human Papilloma Virus)	11.4	4.9	5.1	78.6
Miscarriages	39.7	28.6	10.9	20.9
Diet	44.9	30.6	10.0	14.6

DISCUSSION

Our results regarding women's knowledge about cervical cancer and screening measure was positive, majority of the women 70.9% and 76.6% have replied positively, respectively. While other studies in Bahrain reported a similar findings^[21]. On contrary, a study conducted in Kenya, noted that 35% of Kenyan women have never heard of cervical cancer^[10]. Similarly in other study performed in Ibadan, showed that only 33.5% of the sample was aware of Pap smear^[16]. This reflects that women in Bahrain have a greater knowledge regarding this aspect.

The fact that majority agreed that it is possible to cure this cancer (51.7%), and over two third agreed that it is possible to detect it before symptoms appear with Pap smear (68%), again majority (83.7%), agreed that early detection is good for treatment outcome. While it is difficult to explain this positive conception especially the practice doesn't reflect the positive knowledge of the women.

Women knowledge on the most common predis-

posing factor for cervical cancer, majority of women agreed on the factors such as having multiple partners, smoking, STDs, and contraception as being risk factors of cervical cancer. On the other hand, It is also important to note that 78.6% of women didn't know what HPV is and its relation to cervical cancer. This also corresponds to a study done in USA which showed that only 40% of women have ever heard of HPV^[18]. This might be as a result of lack of integration of this information in school curriculums or inability of the physicians to correct the social misunderstanding. that early marriage, diet, increase in the number 70.9% and 76.6% have replied positively, respectively; pregnancies and low socioeconomic class are risk factors. Other significant finding noted that women lacked knowledge about the fact that women can have cervical cancer without symptoms.

Regarding the practice of women towards cervical cancer, results show that 47.4% have had a Pap smear even though 68% have heard about it, proving the lack of practice in relation to knowledge.

In addition, 35.1% of those who have done it did so in a period of 5 years or less. Majority of women (30.8%) within the different educational levels states that their family physician was the primary source of knowledge about Pap smear, followed by family or friends (21.8%). This might be due to the number of visits to the family physician from all family members from all levels of society when encountered by any health problem and the trust put in them by the community. This fact reflects the vital role of family physicians in passing the health messages for women.

Of those who had Pap smear, 60.8% had it during postnatal visits. Same findings reported in other study in Bahrain carried out on government female school teachers to assess their attitude towards breast and cervical cancer^[15].

Regarding women preference for who carry out the test, our results show that majority of our sample would like a gynecologist to do the test for them (64%). Similar results were noted in a survey conducted in Sharjah that the majority (91.11%) want the screening of cervical cancer to be carried out by gynecologists^[15,19,20].

As the number of children increases, the knowledge of women increases except for females with more than nine children. This result reflects that women's knowledge increases with experience or might be caused for increased visits to the doctor about obstetrics and gynecological, and get to know about Pap smear and screening required in postnatal programs in Bahrain.

In incongruity with our hypothesis that knowledge about cervical cancer increases with increased education level, results show that the highest level of knowledge was amongst secondary education level rather than advanced studies. This proves that knowledge about cervical cancer is related to experience rather than educational level.

Women perception on if Pap smear is simple, painless procedure and important in detection of cervical cancer, 65.1% of females agreed to do it. This shows that most females that haven't done Pap smears have a misunderstanding of the test, either believing that it is a painful and a very complicated procedure or not realizing its immense importance in diagnosis and treatment of cervical cancer. And of those who didn't agree to do it stated that they are healthy and don't need it.

CONCLUSION

In conclusion, this study has assessed knowledge, attitude and practice of married Bahraini women towards cervical cancer. From the obtained data, it is possible to conclude that the majority of respondents have a good knowledge about cervical cancer but is not reflected in their practice. Women stated that their main source of information was their family physician even though most of them preferred their gynecologist to perform the Pap smear for them. Data revealed that there is no direct relation between educational level of women and their knowledge about cervical cancer but rather their number of children did, proving that their knowledge is a result of experience and multiple visits to the family physician.

Postnatal examination plays an important role in encouraging the practice of women towards cervical cancer which introduces them to better health care services in Bahrain. Many reasons held women back from doing Pap smear. The main cause was their perception as being healthy no need to perform the test. Other reasons mentioned such as feeling shy, fear of pain, disapproval of their partner and fear of upsetting results.

Overall knowledge of women in Bahrain about the risk factors contributing to cervical cancer seemed to be based on social misbeliefs rather than medical based evidences. In the same context women lacked knowledge about the role of HPV as a major risk factor due to their ambivalence about it.

RECOMMENDATIONS

The role of appropriate and correct knowledge about cervical cancer should be emphasized due to its effect on women's practice and attitude. This can be achieved through the introduction of this topic into the schools' curriculum.

Based on the fact that family physicians are the major source of knowledge about cervical cancer and main risk factors, this role can be further emphasized when planning education programs. Family physicians should aim at playing an even bigger role through their further emphasis on the importance of Pap smear to women especially those attending antenatal and postnatal clinics. Work-shops that address what Pap smear is and its importance can also be arranged with family physicians explaining these facts

to selected groups of females especially those who are primigravidas. National campaigns that aim towards increasing awareness should be organized. Brochures and leaflet should be distributed in the health centers and public areas. The role of media should not be underestimated since TV and radio programs can contribute a great deal in such campaigns.

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