Volume : 5 | Issue : 5 | May 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

Research Paper

Saudi Women's Awareness and Practices Towards Cervical Cancer Screening in Primary Health Care National Guard Health Affairs- Al Ahsa

Biostatistics

KEYWORDS : Cervical cancer, Pap smear.

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ABSTRACT

Objectives: To study level and determinants of awareness and screening practices towards cervical cancer among female attendees at Primary Health Care centers in King Abdulaziz Hospital - Al Ahsa, Saudi Arabia.

Methods: All female attendees during the period of the study will be approached through personal contact after prior orientation about the objectives and possible impact of the study and they will be invited to participate.

Result: According to participants (56.0%) of the sample scored poorly in the knowledge score for the signs of cervical cancer, while (50.2%) scored poorly as well in the risk factor of CA.

The most common barriers against Pap smear examination is lack of knowledge (28.4 %) followed by there are no programs identify the examination (20.9%) and fear of examination (18.5 %).

Conclusion:

All over study show more than half of the sample poorly in the knowledge score for the signs of cervical cancer and 50.2% scored poorly as well in the risk factor of CA.

Introduction and Background

Cervical cancer is the fourth leading cause of female genital cancers and the sixth cause of female cancer death in the United States [1].

Globally, it is the most common cause of female genital cancer and female cancer deaths [2]. Over 75% of the annual cases of cervical cancer and its related morbidity and mortality occur in developing countries [2] usually with less comprehensive cervical cancer prevention programs.

The incidence of cervical cancer is low in Saudi women. According to the Saudi registry 2007 report, cervical cancer is the 13th most frequent cancer in Saudi women and the 6th most frequent cancer in Saudi.

This is in contrast to Canada where it is the second most common cancer in this age group [3]. The incidence rate in Saudi Arabia is one of the lowest in the world at 1.9 cases per 100,000 women, accounting for 2.6% of diagnosed cancer cases in women.

Current estimates in Saudi Arabia indicate that every year, 152 women are diagnosed with cervical cancer and 55 die from the disease. It is anticipated that as the population ages increasing, there will be a dramatic increase in the incidence of cervical cancer.

The estimated number of new cervical cancer cases and deaths in 2025 are 309 and 117, respectively [4]. Despite the high mortality from this disease in the developing countries, it is a preventable disease and it is morbidity and mortality could be greatly reduced using preventative health methods such as safe sexual practice and most importantly the Pap test.

Pap smear screening, which identifies cytological abnormalities of the cervical transformation zone, has helped to reduce cervical cancer incidence and mortality rates by 70% in the developed countries [5].

The Pap smear test is currently the most widely used approach for preventing cervical cancer, via a 1–3 yearly screening depending on the environment [6, 7].

The benefits of Pap smear test in preventing cervical cancer has been demonstrated by in countries like Finland, Sweden with National screening programs. As a result, these countries are reported to have the lowest incidence and prevalence of cervical cancer and related morbidity and mortality in the world [8, 9].

Volume : 5 | Issue : 5 | May 2016 • ISSN No 2277 - 8179 | IF : 3.508 | IC Value : 69.48

There is need for intense, well focused cervical cancer education in order to increase awareness because based on studies that assess the level of awareness of the public about risk factors which would be translated into early screening for cervical cancer. In order to design and implement such health education it is important to collect basic data regarding awareness and practice of Saudi women about cervical cancer screening, using the Pap smear.

The aim of this study is to assess the awareness and practice of cervical cancer among Saudi women attending the primary health care centers in King Abdulaziz Hospital - Al Ahsa, Saudi Arabia.

Objectives:
Aim of the Study:
To study level and determinants of awareness and screening practices towards cervical cancer among female attendees at Primary Health Care centers in King Abdulaziz Hospital - Al Ahsa, Saudi Arabia**.**

Specific Objectives:
1. To estimate the magnitude of screening awareness among female at risk of cervical cancer development.
2. To define the magnitude of screening practices towards cervical cancer.
3. To define the variables related to women practices of screening.
4. To assess relaibility of Cervical Cancer Awareness Measure (CAM) version 2.1.

Secondary Objectives:
To offer health education using face to face and pamphlets about the risk factors, proper screening practices and the role of Pap smear in reduction of cervical cancer mortaility.

Methodology:
Study Area/Setting:
The study will be carried out in Al Ahsa King Abdulaziz Hospital, Eastern Province of Saudi Arabia; located 50 km form the Arabian Gulf, 450 km from the capital Riyadh, and populated by about 1.5 million. Al Ahsa is composed of three regions; urban, populated by about 60% of the total population, rural consisting of 23 villages (35% of the population) and "Hegar" Bedouin scattered communities making up the remaining 5%.

Study Design:
A cross-secional design will be used to achieve the study objectives.

Sample Size:
A non-probability sampling method will be followed (Convenience sampling) , all Saudi females aging 21 years or more attending the out patients clinics at the National Guard health Facility in Al Ahsa over one month peroid will be taregeted for inclusion (01\09\2013 to 30\09\2013). I chose this time because it is suitable for patients to come primary health care. (The time will be after summer vocation).

Data Management and Analysis Plan:
Data entry and analysis will be carried out using analyzed SPSS version 19.0 (SPSS Inc., Chicago, IL). Analysis will be carried as per CAM protocol. Both descriptive and inferential data analyses will be employed using appropriate statistical tests of significance. Categorical variables will be expressed as proportions and percentage. Knowledge scores will be expressed as mean, standard deviations and medians.

Binary logistic regression analysis model will be generated used to define socio-demographics and other variables that may correlate with levels of knowledge by inclusion of significant variables at univariate analysis.

Confidence interval of 95% and significance level of <0.05 will be applied.

Results:
The total participants in the study are 246 women, all of them are Saudi. The social demographic characteristics of them are represented in tables 1.

About 83% (n: 354) of them are married, 50 (11.7%) unmarried, 12 (2.8%) widowed, and 10 (2.3%) divorced. Those from cities represent (91.0%), other Urban areas 5.15 and (16.0%) from Rural areas (Table 1).

The majority of participants blonging to (25 and 34) years (46.2%), followed by those above 35 years (34.5%). The educational level of respondents for woman and her husband ranged from low to high, but the majority had average education. Half of respondents had monthly income more than Six thousand Saudi Riyals. (47.4%) of respondents do not use any contraceptives (Table 1).

According to participants of the sample (56.0%) scored poorly in the knowledge score for the signs of cervical cancer, while (50.2%) scored poorly as well in the risk factor of CA. (Table2)

There were significantly relationship between the group of average education, cities popuation and a good score knowledge of sings of cervical cancer. The rest of variable found to be not significant. (Table3)

Regarding a good score of risk factor, there were significantly relationship between women age group (25 and 34 years), intrauterine device used and a good score of risk. The rest of variable did not show significant relationship (Table 4).

In maternity history, the mean age at first marriage was 12.9 ± 10.4 and the numbers of children were 3.1 ± 2.9. Regarding family history of cerival cancar the mean history 0.63 ± 0.24. (Table 5).

Among participants it is found that (82.0%) had never been exposure to Pap smear while only (18.0%) of them had at least one Pap smear and (12.2%) the reason for Pap smear is due to infection and the only (16.7%) of them recommended by doctors (Chart 1) (Table 6,7).

In table 5, the most common barriers against Pap smear examination is lack of knowledge (28.4 %) followed by there are no programs identify the examination (20.9%) and fear of examination (18.5 %) (Table8).

According to women in this study almost half of the women do not know about warning signs of cervical cancer (44.4 %). It is was also observed that two thirds of woman they went to contact doctors immediatelly (66.0%) when they have noticed the warning signs of cervical cancer and approximately half of them surprisingly not aware about the risk factors of cervical cancer specifically. (46.9%) (Chart 2, 3, 4)

According to the knowledge women about expectation of been exposed to cervical cancer they though that rare chance to contract cervical cancer (73.2%). while (67.8%) of participants women the chance through that she could be exposed to cervical cancer past years is zero and (58.2%) of them think that will not going to developed cervical cancer in coming 10 years (Table 9).

Cornbrash's alpha calculated and found (54.9%).
Sample characteristics of 426 women at Primary Health

Care National Guard Health Affairs- Al Ahsa. (Table 1)

Variable	Total (%)
Age (years)	
15 – 24	82 (19.2)
25 – 34	197 (46.2)
35 +	147 (34.5)
Education level (wife)	
Low	82 (19.2)
Average	204 (47.8)
High	136 (31.9)
Education level (husband)	
Low	40 (9.3)
Average	269 (63.1)
High	74 (17.3)
Social Status	
Unmarried	50 (11.7)
Married	354 (83.0)
Divorce	10 (2.3)
Widow	12 (2.8)
Location	
City	388 (91.0)
Rural	16 (3.7)
Urban	22 (5.1)
Housing type	
Villa	176 (41.3)
Rent house	116 (27.2)
Apartment	134 (31.4)
Monthly income (Saudi riyal)	
1000-2999	79 (18.5)
3000-5999	130 (30.5)
more than 6000	217 (50.9)
Use of contraceptives	
no use	202 (47.4)
Combination pill	102 (23.9)
Progestin-only pill	27 (6.3)
Depo Provera	9 (2.1)
intrauterine device	43 (10.0)
Condoms	43 (10.0)

Score Knowledge of sings CA and risk factors CA of 426 women at Primary Health Care National Guard Health Affairs- Al Ahsa (Table 2)

Score	Good score (%)	Poor score (%)
Knowledge of CA signs	186 (43.7)	240 (56.3)
Risk factor of CA	212 (49.8)	214 (50.2)

Relationship between variable and knowledge score of cervical cancer. (Table 3)

Variable	Total	Good score No. (%)	P value
* Education level (wife)			
Low	82	24 (13.0)	0.0000
Average	204	81 (43.8)	
High	136	80 (43.2)	
Location			
Urban	388	176 (45.4)	0.039
Rural	16	6 (37.5)	
Migration	22	4 (18.2)	
Monthly income (Saudi Riyal)			
1000-2999	79	42 (53.2)	0.023
3000-5999	130	45 (34.6)	
more than 6000	217	99 (45.6)	

Relation between variable and Risk factor score of cervical cancer. (Table 4)

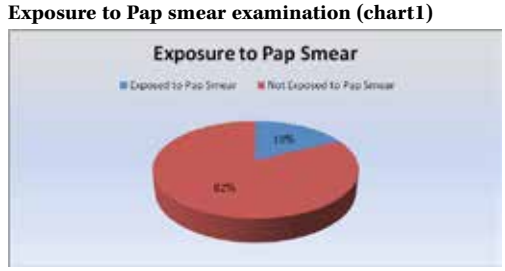
Variable	Total	Good score No. (%)	P value
Age (Years)			
15 – 24	82	28 (13.2)	0.005
25 – 34	197	109 (51.4)	
35 +	147	75 (35.4)	
Use of contraceptives			
no use	202	93 (46.0)	0.026
Combination pill	102	56 (54.9)	
Progestin-only pill	27	7 (25.9)	
Depo Provera	9	5 (55.6)	
intrauterine device	43	28 (65.1)	

Maternity history of 426 women at Primary Health Care National Guard Health Affairs- Al Ahsa. (Table 5)

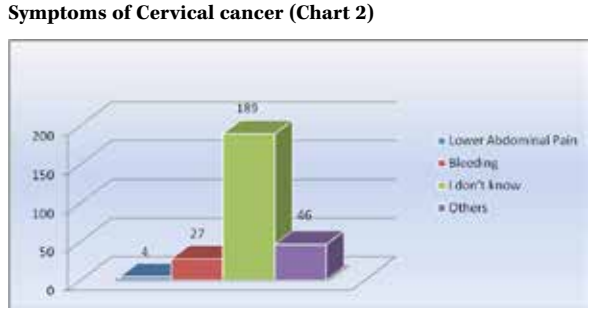
Maternity history	Mean ± SD
Age for first marriage	15.9 ± 10.4 years
number of abortions	0.62 ± 1.31 abortions
Number of times the normal lobour	3.0 ± 3.0 normal lobour
number of children you have	3.1 ± 2.9 child
Is there an any family member ever exposed to cervical cancar	0.63 ± 0.24

Pap smear examination

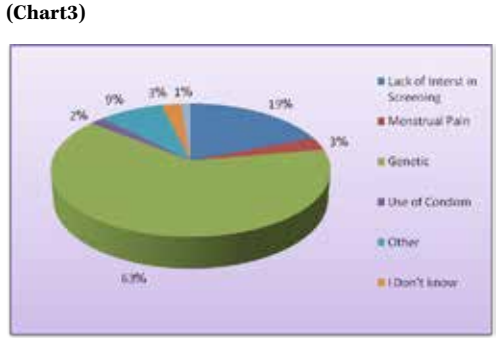
Exposure to Pap smear examination (chart1)



Participants Perception Regarding Warning Signs and Symptoms of Cervical cancer (Chart 2)



Factors Increasing the Chance to Develop Cervical Cancer (Chart3)



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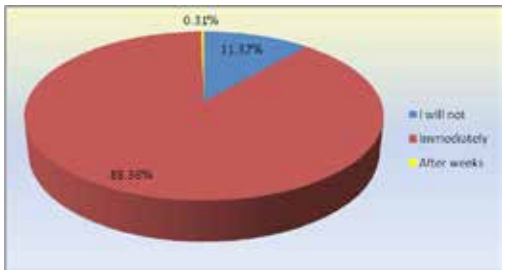
Health Care Seeking In Terms of Time (Chart4)



Discussion:
This study has its own importance as it is conducted in Arab context where culturally difficult to talk about gynecology and obstetrics problems. There are several issues related to this resistant behavior and one of those is the stigma of reporting glow symptoms. Most of the Arabic countries lack the basic infrastructure for cancer diseases services.

Furthermore this study added the inside of Arab women regarding the preventable causes of gynecology and obstetrics cancer that is cervical cancer the results showed that women have low level of knowledge and even if they have higher level of knowledge and understand the importance of this problem but because the fear of stigma do not accept to visit physician for examination.

The majority of Saudi women between (25 and 34) years (46.2%) and the educational level of respondents had average education. Half of respondents had monthly income more than Six thousand Saudi Riyals. (47.4%) of respondents do not use any contraceptives and (83%) of them are married. The majority of respondents were from cities represent (91%). In similar work that is done in King Abdu-Aziz University Hospital Khalid H. Sait reported an awareness level of 67% among the respondents, however, the sample structure was different since it included non-Saudi women in his research alongside the fact that the education level of the sample and the distribution level was different. No personnel interviews and the questioner were provided through various contacts. [10]

This shows that demographic and social tendencies results in similar health care practice, as in our results it was the second reason because of which women would not have the examination.

Among participants it is found that (82.0%) had never been exposure to Pap smear while only (18.0%) had at least one Pap smear and (12.2%) the reason for Pap smear is due to infection and the only (16.7%) of them recommended by doctors. On other a study was in contact in the University of Ibadan in Nigeria showed that among the sample which represents university students or graduates women only 33.5% were aware of the Pap smear examination, with awareness being mostly among the medical students. The fact that the study is conducted within literate population the results are very poor. This study was conducted by OA Ayinde, AO Omigbodun and AO Ilesanm. [13]

In maternity history, the mean age at first marriage was 12.9 ± 10.4 and the numbers of children were 3.1 ± 2.9. regarding family history of cervical cancer the mean history 0.63 ± 0.24 when compared with what was reported federal civil servants showed almost the same, the number of children that respondents had as at the time of this study yielded a mixed picture when measured with the level of awareness about cervical cancer (not statistically significant) and Pap smear test (statistically significant). [15]

The fact that almost half of the sample did not answer this question, reassures the idea of cultural and social perception plays a role in health care attitudes and especially in the case of prevention of cervical cancer.

When looking at the respondents in terms of the knowledge regarding the expectations for cervical cancer;

Age-wise, 73% answered it is rare to have women in their age with cervical cancer, while 18.5% said it is same as other cancers, 5% considered their age group is highly probable for developing the cancer, while 1.4% considered their age group at much higher risk.

On a personal level, two thirds of the women never thought of their chances for developing the cancer, while one quarter 25.4% thought of it. 4% of the women thought of the idea often and 1% considered that they thought of it more often.

As for future expectation, 58% said there is no likelihood to develop the cancer, while 38% see some possibility for that, and 2% think it is probable, non-thought it is almost sure to have the cancer.

In a summery, more than half of the sample 56% scored poorly in the knowledge score for the signs of cervical cancer, while just over the half 50.2% scored poorly as well in the risk factor of CA.

In Turkey within two cities a more detailed study of the awareness and knowledge of cervical cancer and prevention, showed better results but not satisfactory enough; half the women (57.1%) were not aware of the causes of cervical cancer. And those who knew them stated that they had obtained this knowledge from the media, internet, posters at hospital and the trainings given by health staff. Most women (70.0%) knew the frequency of cervical cancer and who should have a test performed (65.6). However, only half of them know how often this test should be conducted (56.3%) [15]

In a study to measure the knowledge and awareness of both breast cancer and cervical cancer among the minorities within Asian American Pacific Islander groups in California, large numbers of the groups have heard of the Pap smear test, the study reported that 87.3% of Cambodians, 92.5% of Laotians, 97.3% of Thais and 86.3% of Tongans. This study is quite interesting due to the fact the many of the women in the sample did not live long enough in the US. The study was done by Jeff Dang, Jessica Lee and Jacqueline H. Tran [16]. When compared to the results we got in our work or in [10], an interesting results could be pointed out and that is even though the women among the minorities and among the less educated and some of them could have language difficulties, the percentages of the awareness is very large compared to what we have in Saudi Arabia.

From the P-value tables, within the risk factor scores a statistical significance where $P < 0.05$ is shown among the groups who use contraceptives, and the age groups. While the scores based on location, housing, income, social status and educational levels show no statistical differences.

One more factor of means' statistical significance difference is shown in the knowledge category; where income, educational level of women, and location of living show statistical significance in groups' responses.

The result showed a moderate reliability coefficient.
By looking at the examples of results reported from various researches that were conducted in Europe (Turkey), The Arabic gulf (KSA, and Kuwait), USA and Nigeria, it is clear that various factors affect the awareness and health care practice of indi-

viduals, especially in the case of women and the cervical cancer. Education, national health programs and physicians' awareness and advice are among the most important factors for the improvement of the awareness and positive health care practice.

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