Assessment of The Awareness toward Cancer Cervix, Early Detection and Prevention of Risk Factors among Saudi Males and Females

1 Abdulrahman S. Almajnuni, 1Abdulaziz S. Balubaid, 1Abdulaziz S. Alzhrani, 1Mohammad S. Alkayyal, 2 Hassan saleh allam, 1Abdulaziz S Alghamdi, 3Abdel Magid Aly Abdou *, 3Mamduh Abdel Fatah Sheba *

1- King Abdul-Aziz University Hospital, 2- King Abdul-Aziz University, Faculty of Medicine, Rabigh Branch, 3-* Faculty of Medicine, Rabigh, Jeddah

ABSTRACT
Background: Cervical cancer is the third most common malignancy in women worldwide, and it remains a leading cause of cancer-related death for women in developing countries.

Aim and objectives: The aim of the paper is to assess and increase the awareness toward cancer cervix, early detection and prevention of risk factors among Saudi males and females.

Materials and Methods: A cross-sectional descriptive study was carried out among 740 Saudi males and females above the age of 16 years. The participants were randomly enrolled in this study.

Results: The participants 446 (60.3%) females and 294 (39.7%) males were included in the study. Majority of the participants (n= 547, 73.9%) have heard about cervical cancer but most of them didn’t know that it is a preventable disease (n= 359, 48.5%). We found that; only 17.6% of the study group has heard about HPV Vaccine. It could be attributed to low level of knowledge about the virus itself, since only 19.9% of the population knew about the virus.

Conclusion: There is a great need to increase the educational standards of the society and improve the information and knowledge about this important disease to reduce the number of patients as well as raising the health status of the populations.

Keywords: Cancer Cervix, Prevention, HPV Vaccine.

INTRODUCTION
Cervical cancer is the third most common malignancy in women worldwide, and it remains a leading cause of cancer-related death for women in developing countries (1). Over 500,000 new cases are diagnosed each year. Approximately 80 percent of cervical cancer cases occur in low socioeconomic countries where it is the most common form of cancer (2). Cervical cancer ranks as the 12th most frequent cancer among women in Saudi Arabia (3). The association between cervical cancer and Human Papilloma Virus (HPV) infection have been clearly documented, so prevention of HPV infection will lead to prevention of cervical cancer. Vaccination against HPV should be used for both males and females (4). Survey studies previously done on awareness towards cancer cervix and the role of HPV vaccine were more focused on females (5).

MATERIALS AND METHODS
- A structured questionnaire was designed to assess the awareness of cervical cancer, early detection, and prevention of risk factors in both male and females.
- Pre-testing of the questionnaire was done on 10 respondents, after which necessary changes were made, and the questionnaire was re-administered. The questionnaire was translated from English to Arabic language and distributed as electronic form and hard copies.
- IBM-SPSS version 21 used to generate statistical parameters.

The study was done after approval of ethical board of King Abdul-Aziz University.

RESULTS
Four hundred and sixty-four (60.3%) of the participants were females and 294 (39.7%) males were included in the study. Regarding level of education of the participants most of them were university level 537 (72.6%). Regarding the question, Do you work or study in a medical field, 492 (66.5%) answered by No, while 248 (33.5%) answered by Yes. Regarding the Age of the participants, the minimum age was 16 years old, the maximum was 59 and the mean was 25.9.
Regarding the 6 questions for general knowledge

<table>
<thead>
<tr>
<th>Question</th>
<th>I don’t Know</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>Row N %</td>
<td>Count</td>
<td>Row N %</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>1- Have you ever heard about cervical cancer?</td>
<td>21</td>
<td>2.8%</td>
<td>172</td>
</tr>
<tr>
<td>2- Do you know that cervical cancer is a preventable disease (eg. vaccination and cervical smearing)?</td>
<td>139</td>
<td>18.8%</td>
<td>359</td>
</tr>
<tr>
<td>3- Have you ever heard about human papilloma virus, and its relation to cancer cervix?</td>
<td>108</td>
<td>14.6%</td>
<td>485</td>
</tr>
<tr>
<td>4- Have you heard about a vaccine that can prevent cervical cancer?</td>
<td>125</td>
<td>16.9%</td>
<td>485</td>
</tr>
<tr>
<td>5- Do you know that this vaccine is available for both males and females?</td>
<td>171</td>
<td>23.1%</td>
<td>489</td>
</tr>
<tr>
<td>6- Do you know that infected male can transmit HPV to his wife?</td>
<td>154</td>
<td>20.8%</td>
<td>414</td>
</tr>
</tbody>
</table>

Majority of the participants (n= 547, 73.9%) have heard about cervical cancer but most of them didn’t know that it is a preventable disease (n= 359, 48.5%). More than half of the participants (n= 485, 65.5%) didn’t hear about HPV and its relation to cancer cervix. Question about the awareness regarding vaccine that can prevent cervical cancer. only 17.6% (n=130) of participants were aware that vaccine is available against cervical cancer and only 10.8% (n=80) of participants knew that it’s available for both males and females. Regarding the question about the knowledge that infected male can transmit HPV to his wife, only 23.2% (n=172) knew while the majority of participants n= 414 (55.9%) didn’t.

Cervical cancer is a preventable disease and the cornerstone of prevention (primary prevention) is the HPV vaccine, however only 10.8% of the study population aware that vaccine is available against cervical cancer. We found that; only 17.6% of the study group has heard about HPV Vaccine. It could be attributed to low level of knowledge about the virus itself since only 19.9% of the population knew about the virus.
DISCUSSION

Most cervical infections are either latent or subclinical and therefore asymptomatic. These infections are detected on Pap smear and are reported as either a low-grade squamous intraepithelial lesion (LGSIL) or a high-grade squamous intraepithelial lesion (HGSIL). Further examination with 3-5% acetic acid and colposcopy shows characteristic acetowhite changes and abnormal blood vessels indicative of HPV-triggered dysplasia.

Patients who have neglected to obtain annual Pap testing for several years or more and who have an HGSIL that has progressed to invasive cancer of the cervix may report vaginal bleeding between periods or after sexual intercourse, dyspareunia, and fullness in the pelvis(5).

The HPV vaccine protects preteens, teens, and young adults from Human Papillomavirus (HPV).

Research shows that when boys and girls are vaccinated early - at 11 or 12 - they’re better protected from the serious health problems HPV can cause, including certain cancers and genital warts(4).

The same number was found by a study conducted by Abdulrahim et al. (6) in Mecca – Saudi Arabia. They found only 20.1% of the population have heard about the vaccine. A higher level of awareness was reported in a study conducted by Marek et al. (7) in Hungary; they reported that 35% of the population have heard about the vaccine.

Modifications to screening strategies will also probably be made in the future. Retrospective data
analysis indicate that it may be advantageous to lengthen the Pap smear screening interval from annually to every 2 to 3 years. Results from ongoing studies will help clarify the benefits and risks of lengthened screening intervals. Several other studies to examine the role of HPV DNA testing as a primary screening method for cervical cancer are underway.

In addition to changes in screening strategies, effective therapeutic and preventive vaccines may be developed that have the potential to contribute significantly to the control and prevention of cervical cancer.

CONCLUSION
Our results showed that the majority of the participant's knowledge regarding Human Papilloma Virus prevention measures, transmission and its relation to cause cervical cancer is few. Therefore, there is a great need to increase the educational standards of the society and improve the information and knowledge about this important disease to reduce the number of patients as well as raising the health status of the populations.

REFERENCES
2- pubmedcentralcanada.ca/pmcc/articles/PMC2676497
7- www.sciencedirect.com/science/article/pii/S0264410X1101424