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Research Article

**THE KNOWLEDGE AND ATTITUDE OF PRIMARY HEALTH  
CARE PATIENTS TOWARD CORONAVIRUS IN  
SAUDI ARABIA**

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**Abstract:**

**Background:** The Middle East respiratory syndrome (MERS) is a virus infection causes by a coronavirus affects respiratory system. Coronaviruses are transmittable infection to humans, and was found in 2012 in Saudi Arabia. Unfortunately, Saudi Arabia remains on the top of this dangerous respiratory infection which is also associated with high mortality rate. **Objective:** To evaluate the knowledge and attitude among Saudis population towards Middle East respiratory syndrome. **Methods:** A cross-sectional study based on questionnaires was distributed randomly on 300 Saudi participants in public health care centers in Saudi Arabia in the period from November 2018 to December 2018. Participants included criteria; Saudi, aged 20-50 years old, males and females. **Results:** Total 300 participants were filled the questionnaires, more than one-third of participants aged 20-30 years old. Regarding the knowledge we found that majority of participants 100% have heard about the MERS-corona Virus. Majority of participants (79%) knew that it was caused by a virus and the most of them were aware that it was transmitted by camels (68%). high numbers of participants do not know about how transmission happens (28%), and how to prevent this disease (47%). in addition, one-third of participants do not know the signs and symptoms of corona virus (35%). In addition, low numbers of participants obtain their information from public campaigns. **Conclusion:** It was found that the level of knowledge about MERS-Corona Virus amongst the Saudi population was relatively low and needs to increase the level of awareness towards MERS-Corona Virus. More campaigns should be conducted to fill the gaps.

**Keywords:** MERS; Coronavirus; knowledge; attitude; KSA.

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**INTRODUCTION:**

The “Middle East Respiratory Syndrome Coronavirus” (MERS-CoV) is a viral respiratory infection that was first reported in Saudi Arabia in 2012. It is a causative agent for a dangerous type of respiratory tract contamination which is associated with high mortality. Unfortunately, the virus spread to other countries which have camels such as Qatar, United Arab Emirates and Kuwait. Camels were found to be the main source for MERS-Corona Virus [1]. The large majority of infected patients with MERS-CoV developed an extreme intense respiratory disease, fever, shortness of breath and cough Which ended with respiratory failure and causes morbidity and mortality [2]. Also, there are many nonspecific symptoms related to this infection like gastrointestinal disease, including diarrhea, nausea, and vomiting. The medical symptoms of MERS range from asymptomatic or mild illness to sever respiratory distress disorder and multi-organ failure leading to death. The incubation time for MERS is between 5 to 14 days [3]. In 2012 first Saudi citizen had infected with corona and in april 2014 first American was infected [4]. Saudi Arabia is more prone to spread MERS-Corona Virus. A huge number of Muslims visit Saudi Arabia to perform Al-Hajj which takes place once every year. Ministry of Health in Saudi Arabia have asked the visitors to wear masks in order to stop the spread of

the MERS- coronavirus. Health authorities additionally asked for individuals participating in Hajj to use a napkin while coughing and wheezing, and take the essential vaccinations. Thus, it is important to enhance the general awareness and education of people in general about this infectious disease and to practice protections [5].

This study aimed to evaluate the level of awareness of Saudi population towards MERS- Corona Virus infection.

**METHODS:****Study Design**

A cross-sectional study based on questionnaires was distributed randomly on 300 Saudi participants to evaluate the level of awareness towards corona infection

**Study Subjects**

The target population for this study was visitors of primary health clinic in Jeddah. Including criteria; both genders, aged 20-50 years old and Saudis. 300 participants filled the surveys in the period November 2018 to December 2018.

**Statistical analysis**

Data entering and analysis was done by using SPSS software.

**RESULTS:****Table 1: shows the participants' ages**

Questions	Number	Percentage
Age?		
20-30	114	38%
31-40	105	35%
41-50	81	27%

Total 300 surveys were distributed and filled randomly among Saudis participants. The majority of participants were aged 20-30 years old (38%), whom aged 31-40 years old were (35%) and whom aged 41-50 years old were (27%). (table 1).

**Table 2: shows the general knowledge of general population:**

Questions	YES	NO
Do you know corona virus?	100%	0%
Is it caused by virus only?	79%	21%
Is it transmitted by camels?	67%	33%
Can treat supportively?	36%	64%
Method of transmission?	72%	28%
Prevent the disease?	53%	47%
Signs and symptoms?	65%	35%

Regarding the general knowledge of included participants, results showed that majority of participants 100% have heard about the MERS-corona Virus. Majority of participants (79%) knew that it was caused by a virus and the most of them were aware that it was transmitted by camels (68%). Also, majority of them (64%) did not know that this disease might be treated with supportive treatment.

### DISCUSSION:

This research done to assess the level of awareness among Saudi population toward MERS-CoV.

Many researches have analyzed the different levels of information, attitude, and practices about contagious infectious, such as severe acute respiratory syndrome and the influenza strain H1N1. Furthermore, there is shortage of knowledge among participants.

In our study, majority of participants have low level of awareness of corona virus and its prevention strategies.

Participants should have essential information about the symptoms such as (sneezing, shortness of breath and fever) and the methods of transmission by direct contact with a sick and healthcare provider, also elderly people with high risk of infections must take their regular vaccinations to help boost their immunity especially during outbreak.

The Saudi Health Ministry has made strategies to decrease the incidence of this disease. Education regarding the modes of transmission, prevention methods and treatment options are of most extreme significance.

Moreover, a large number of individuals go to Saudi, Kingdom for Umrah and Hajj, therefore it is important to increase awareness about the disease [6].

In this study 300 participants were given surveys to assess the level of awareness regarding awareness

regarding the virus and its prevention, it showed low level of knowledge about sources of infection and prevention. Main source of information was internet.

### CONCLUSION:

This current study was conducted to find out the level of awareness about MERS-Corona Virus infection among Saudi population of various ages carried out among the general population in Saudi Arabia. The results showed that the level of awareness was low.

So, people in Saudi Arabia should be highly educated to avoid close or indirect contact with patients and camel body liquids. In addition, campaigns should take place in increasing the level of awareness and to fill the gaps.

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