ORIGINAL ARTICLE

INTERNATIONAL JOURNAL OF RESEARCH IN PHARMACEUTICAL SCIENCES

Published by JK Welfare & Pharmascope Foundation Journal Home Page: www.ijrps.com

Knowledge and awareness about MERS-CoV among the dental students in Chennai

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Article History:

Received on: 30 Jul 2020
Revised on: 20 Aug 2020
Accepted on: 02 Sep 2020

Keywords:

MERS-CoV,
Awareness,
dental,
students

ABSTRACT

Middle East Respiratory Syndrome (MERS) induced by new ß coronavirus MERS-(CoV) had first been described in Saudi Arabia in September 2012. MERS-CoV communication inside the population is often identified with clustered households and cramped communal spaces. The purpose of the study is to assess the knowledge and awareness of MERS-CoV among dental students in India. This was a questionnaire-based cross-sectional survey of 100 dental college students in Chennai. The self-designed questionnaires contained ten questions focused on the knowledge and awareness of MERS-CoV amongst dental college students. Questionnaires were circulated through an online website survey planet. After the responses were received from 100 participants, data were collected and analyzed, .87% are aware of MERS-CoV through media 13% from professional channels. 84%are aware of the clinical manifestation of MERS-CoV. 81% are aware of the mode of transmission of MERS-CoV. 76% are aware of the preventive measures against MERS -CoV. 68%. Are aware of the incubation period of MERS-CoV. 74% aware of PCR as a diagnostic test for MERS-CoV. This study concluded that dental students had strong awareness and knowledge of MERS. Also, there are a few differences in information and behaviours that require change. Large-scale health educational programs on MERS also should be facilitated by professional organizations to expand their reach and to strengthen knowledge to have a positive impact on their behaviour.

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ISSN: 0975-7538

DOI: https://doi.org/10.26452/ijrps.v11iSPL1.3091

Production and Hosted by

IJRPS | www.ijrps.com

INTRODUCTION

Middle East Respiratory Syndrome (MERS) caused by ß coronavirus MERS-(CoV) had first been recognized from Saudi Arabia in September 2012 (Zaki *et al.*, 2012). Since the very first appearance in more than 1,400 cases, nearly 40% of such cases have been identified with mortality in Saudi Arabia (Liew and Look, 2015; Gastañaduy, 2012). MERS-CoV communication within the environment is mainly associated to close community systems and swarmed residential areas. Dromedary camels were viewed as MERS-CoV stocks, and near contact with them implies a danger to MERS acquisition (Dudas *et al.*, 2018b,a). In the context of the Medicinal Services Arrangements, the disease has been shown with acute flare-ups. People of middle and elderly age with comorbid conditions have shown a high risk of MERS-CoV diseases with increased mortality (Ahmed, 2018).

The medical manifestation of MERS-CoV disease ranges from asymptomatic or mild respiratory

symptoms to severe respiratory illness and demise. Clinically, MERS-CoV disease symptoms include fever, cold, and shortness of breath. Pneumonia is a common condition that is not usually present. In addition, gastrointestinal side effects and diarrhoea have been reported (Who Mers-Cov Research Group, 2013).

The presence of symptomless and subclinical MERS-CoV infection within the physiological system or in community services establishments may pose a major risk to overall well-being. As a result, the public healthcare worker's risk of being infected with MERS-CoV may increase the potential for the transmission of disease to patients and other staff of health care. There is now a growing need to find out and spread the far-reaching MERS-CoV awareness program among healthcare workers (Khan *et al.*, 2014).

Dental practitioners are very often susceptible to bioaerosols created during some dental surgical procedures. Such bioaerosols, comprised of reasonably narrow sized particles, can enhance the risk of infection amongst dental practitioners. In fact, masks used by dental practitioners offer inadequate protection against microscopic particles (Dutil *et al.*, 2008; Spencer, 2006). Subsequently, these factors could also be a crucial component of the spread of viral illness among dental healthcare professionals.

Distinct and unique work features allow dentists to come into close contact with patients and particulates during certain dental treatment procedures leading to an increased risk of MERS-CoV transmission from infected people (Checchi *et al.*, 2005). The main objective of this study was, therefore, to evaluate the knowledge and awareness of MERS-CoV among dental students in Chennai.

MATERIALS AND METHODS

This was a questionnaire-based cross-sectional survey done among 100 dental college undergraduate students in Chennai. The self-designed questionnaire comprised of 10 questions focused on the knowledge and understanding of MERS-CoV among dental college students. Questionnaires were been circulated on an online survey website. After the responses were obtained from 100 respondents, the data collected were analyzed.

RESULTS AND DISCUSSION

87% are aware of MERS-CoV through media 13% from professional channels (Figure 1). 84% are aware of the clinical manifestation of MERS-CoV (Figure 2).

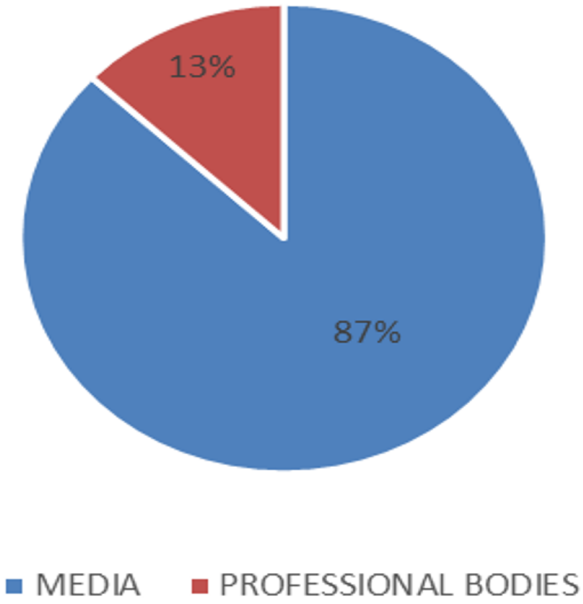

Figure 1: Awareness about MERS-CoV

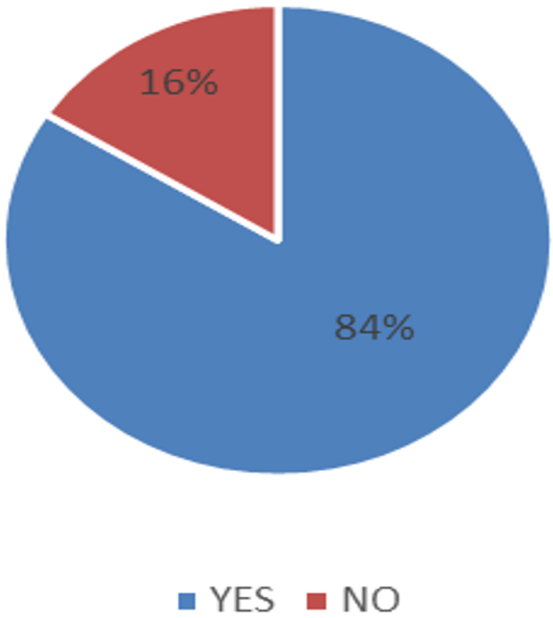

Figure 2: Awareness about the clinical manifestation of MERS-CoV

81% are aware of the mode of transmission of MERS-CoV (Figure 3). 76% are aware of the preventive measures against MERS -CoV (Figure 4).68% are aware of the incubation period of MERS-CoV (Figure 5). 74% aware of PCR as a diagnostic test for MERS-CoV (Figure 6).

In the current study, many dental undergraduate students had acquired the information of MERS from Television. This outcome is supported by previous research in which media (TV) had been the primary source of MERS information among dental students. In addition, the majority of respon-

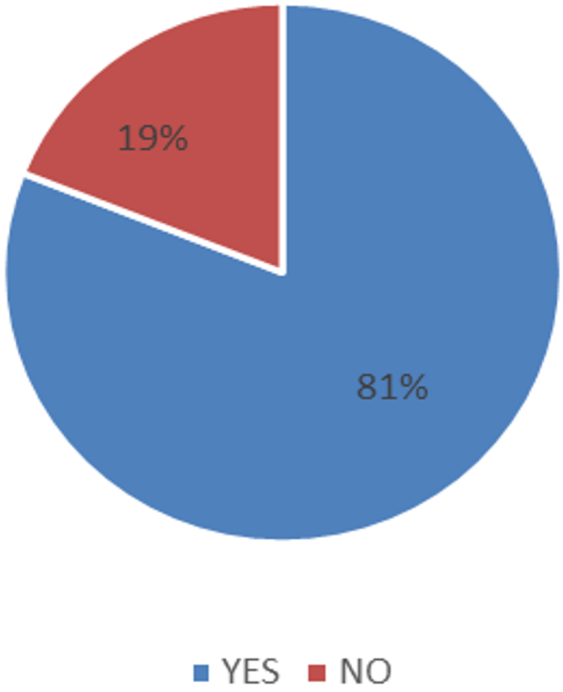

Figure 3: Awareness of mode of transmission of MERS

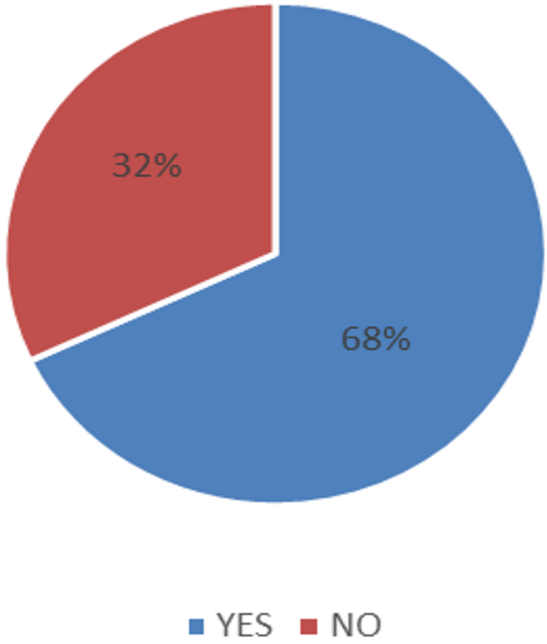

Figure 5: Awareness of incubation period of MERS

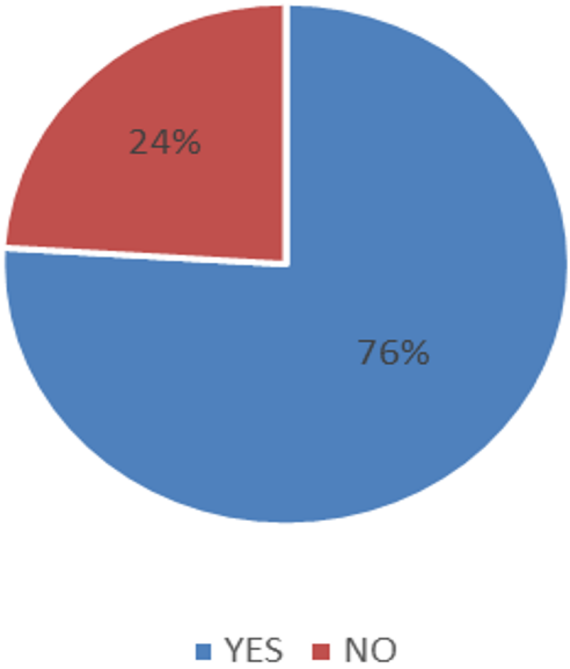

Figure 4: Awareness of preventive measure against MERS

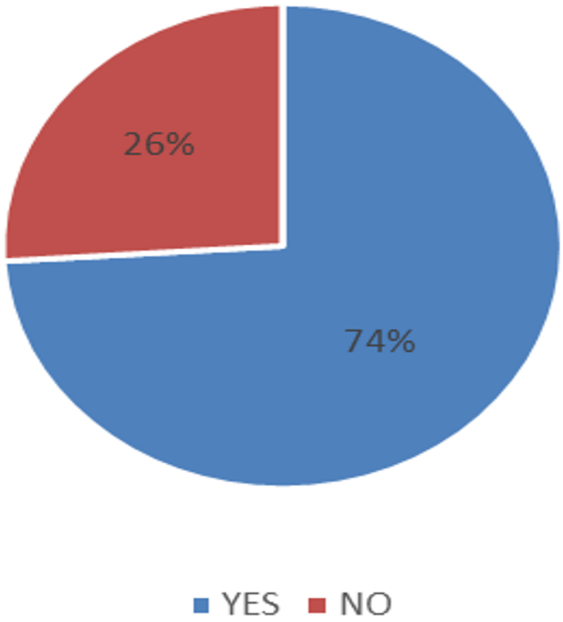

Figure 6: Awareness of PCR as a diagnostic test for MERS

dents correctly responded to questions about the probability of transmission of MERS-CoV infection, the symptoms, and morbidity of MERS-CoV infection, as well as the significance of hand washing in the risk reduction of disease transmission. These research results are similar to those observed in previous studies (ALdowyan *et al.*, 2017; Baseer *et al.*, 2016).

The focus is more on symptoms and prevention

that may have enhanced the understanding of MERS among dentists. Dental Health Professionals (DHPs) were well informed about the MERS-CoV term of infectivity. In addition, dental students have provided sufficient information on MERS treatment (Lacaze and baynam, 2019). In the present investigation, the attitude was seen within the positive spectrum. The strongest attitude of dental undergraduate students was towards the use of protective barrier methods (Jeon and Kim, 2016; Corti *et al.*, 2015).

Dental Health Professionals (DHP) strongly reacted to the investigation concerning their dynamic cooperation in the infection control program, which could reduce the prevalence of MERS-CoV. The class and skills of the DHPs have been seen as a major relationship with this subject. Dental undergraduates have displayed a relatively positive uplifting disposition about this. This result is contradictory to the attitudes displayed by health care practitioners in Al-Qassim Hospitals (Abbag *et al.*, 2018; Khan *et al.*, 2017).

Ideal treatment and insightful examinations are expected to distinguish between the occurrence and the severity of MERS-CoV (Park *et al.*, 2016).

In addition, the institutional readiness for potential prevention of MERS will concentrate on a high-prepared system for early identification of the source and affected patients, the establishment of a reasonable number of airborne detachment chambers, the appropriate training of the wearing and doffing of health care personnel with personal protection equipment, an adequate number of all-around social insurance programs to treat patients in an efficient manner to manage the patients infected with MERS-CoV (Lee *et al.*, 2016; Park *et al.*, 2016).

CONCLUSION

This study concluded that dental students had strong awareness and knowledge towards MERS. Also, there are a few differences in information and behaviours that require change. Large-scale health educational programs on MERS also should be facilitated by professional organizations to expand their reach and to strengthen knowledge in order to have a positive impact on their behaviour.

Funding Support

The authors declare that they have no funding support for this study.

Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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