

Nurses Knowledge Regarding Prevention Protocol of COVID-19 in Emergency Departments

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Abstract

Corona virus disease (COVID-19) pandemic, caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2), and is considered a global challenge.

This short review intends to investigate the knowledge of nurses regarding prevention protocol of COVID-19 in emergency departments. The searching was carried out in electronic data bases: Google scholar, PubMed and World Health Organization (WHO). Most of the reviewed studies stated a good level of knowledge, attitude and a practice among nurses regarding COVID-19. The community education is needed to improve the knowledge, practice and attitude of the people. Also, continuous training for all healthcare workers to help them to be more effective in controlling of the COVID-19 pandemic.

Keywords: *Coronavirus, COVID-19, Prevention Protocol, Emergency Department.*

Introduction

Novel 2019 coronavirus disease (COVID-19) is a respiratory infection breed by the virus SARS-Cov-2, which was recently detected after an outbreak began in Wuhan, China, in December 2019⁽¹⁾.

The COVID-19 was stated a pandemic by the World Health Organization (WHO) on March 11, 2020, after the identification of more than 118 000 cases in 114 countries⁽²⁾. The common clinical symptoms of patients with COVID-19 may include: fever, fatigue and dry cough, occasionally accompanied by nasal congestion,

runny nose, malaise, tachypnea, shortness of breath and sore throat⁽³⁻⁵⁾. The COVID-19 is mainly transmitted through direct person-to-person transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and it occurs through close-distance contact by respiratory droplets; virus released in the respiratory secretions when a person with infection coughs, sneezes, or talks can infect another person if it makes direct contact with the mucous membranes. Also, infection can occur if a person touches an infected surface and then touches his eyes, nose or mouth^(4,6,7).

The COVID-19 is spreading in our community. Person to stay safe should take some precautions such as: physical distancing (**maintain at least a 1-metre distance between yourself and others** to reduce your risk of infection when they cough, sneeze or speak). Wearing a mask (clean your hands before you put your mask on, as well as before and after you take it off, make sure it covers both your nose, mouth and chin), and mask

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should be changed every 6 hours or earlier if it becomes soiled, and N95 respirators may be used for suspected or confirmed positive patient⁽²⁾. Also, keeping rooms well ventilated, avoiding crowds, washing your hands for at least 20 seconds with soap and water or hand sanitizer with at least 60% alcohol, and coughing into a bent elbow, terminal cleaning was done after the patient had vacated the room, it was thoroughly cleaned before next admission. Proper biomedical waste segregation was done as per the guidelines^(8,9).

The COVID-19 is highly infectious disease, and there has not yet been any vaccine or effective treatment that has received approval. So, the best solution to avoid being exposed to the virus will be the simultaneous application of preventive methods⁽¹⁰⁾.

The China CDC issued a guideline to promote awareness of the prevention and control of COVID-19 among the general population. The key messages of the guideline include how to select and wear face masks, adequate hand washing habits, preventive protocol in different locations (include at home, on public transportation, and in public space), disinfection methods and medical observation at home⁽⁴⁾.

This short review intends to assessment the major literature that study the knowledge of nurses about prevention protocol of COVID-19 in emergency department.

Method

Search methods: The electronic searching was conducted in a different database: Google scholar, PubMed, and WHO. Key search terms used: Coronavirus COVID-19, prevention Protocol.

The studies that focused on the topic of prevention protocol of COVID-19, were published in English between 2019 and 2020 were included in the review. While, studies published before 2019 were excluded.

Search outcome: Exploring of literature yield about 50 studies for review, after reading the studies about 25 study were excluded and 25 studies met the inclusion criteria.

Discussion

Regarding the clinical features of patients infected

with 2019 novel coronavirus in Wuhan, China. Most affected patients were men had underlying diseases including diabetes, hypertension and cardiovascular disease. The common symptoms at the onset of illness were fever, cough, and myalgia or fatigue. Less common symptoms were sputum production, headache, hemoptysis and diarrhea^(3,4).

The precautions in the preventing and controlling the outbreak of COVID-19 in non-isolated areas in a general hospital were reported and it was recommended that there is no hospital-acquired COVID-19 infection among hospital staff. Also, the rates for wearing masks, checking epidemiological history and disinfecting medical supplies were 100% in the hospital. The accuracy of wearing masks among patients and their families was 73.79% and the percentage of commitment to hygiene of their hands was 40.78%⁽⁴⁾.

The prevention of infection with airborne pathogens and exposure to particulates matter and aerosols (environmental pollutants and allergens) can be facilitated through the use of disposable face masks. The effectiveness of such masks at excluding pathogens and pollutants depends on the intrinsic ability of masks to resist penetration of airborne pollutants^(2,8,9).

The level of knowledge regarding the prevention protocol of COVID-19 was ranged between fair to good as reported in this study⁽¹¹⁾. Healthcare worker especially nurses have good knowledge, good practice and a positive attitude concerning COVID-19 in emergency departments. And, they perceived that poor knowledge about transmission and limited infection control material were the main barriers to infection control⁽¹²⁾.

The professional training that the nurses received, the level of nurse experience and education were found as factors that affecting the nurse's knowledge and practice level regarding the prevention protocol of COVID-19^(13,14).

A recent study found gaps in specific aspects of knowledge and practice that should be focused on in any future awareness and educational campaigns. Also, the study showed that nurses were using less reliable sources of information; and this need to be addressed immediately as it ultimately affects. The health care system has to provide a comprehensive training program

to promote all prevention protocol of COVID-19^(12,15).

Conclusion

Most of the reviewed studies stated a good level of knowledge, attitude and a practice among nurses regarding COVID-19. The community education should have effect through a commitment to use all strategies that may improve the knowledge, practice, and of the people. Continuous training has to be provided for all healthcare workers to help them to be more effective in diagnosis and management to control such pandemic.

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