

## Omani Healthcare Professional Students' Knowledge and Precautionary Practices of COVID-19

Omar Al-Rawajfah, PhD, RN, FAAN<sup>1</sup>

Khalid A. Al-Mugeed, MSN, RN<sup>2</sup>

Fawwaz Alaloul, PhD, MSN, MPH, RN<sup>3</sup>

Hajar Mohammed Al-Rajaibi, PhD, MD<sup>3</sup>

*(1)College of Nursing/ Adult and Critical Care Department, Sultan Qaboos University/ College of Nursing, Muscat, Oman*

*(2)Near East University Faculty of Nursing, Nicosia, Nicosia, Cyprus*

*(3)Sultan Qaboos University, Muscat, Oman*

**Purpose:** The spread of COVID-19 pandemic has created drastic challenges in healthcare education. Of the most important challenges is the preparedness and willingness of the healthcare professional students to be trained and work within infectious disease outbreaks. Therefore, assessing knowledge, attitude, and practices of healthcare students regarding any infectious outbreak became a fundamental step to set an effective plan related to their preparedness. The purpose of this study was to assess the level of COVID-19 knowledge, attitude, and precautionary practices among medical and nursing students in Oman.

**Methods:** A cross-sectional design was used. Data were collected using the Web-based survey method. The sample was recruited from the largest college of Medicine in Oman, while the nursing sample was recruited from two different nursing colleges in Oman. The study was ethically approved by the principle investigator's affiliated institution. The study tool was developed based on the most recent advisory COVID-19 recommendations from the WHO and the CDC, and validated by two professors of infection control background

**Results:** A total of 222 students filled the survey, with an overall response rate of 18.5%, with a mean age of 21.9 ( $SD = 2.4$ ) years. Of the total sample, 55% were medical students and 59.9% were females. A (4.5%) of the students reported that they are very well-prepared to deal with COVID-19 cases. A (75.4%) of the students reported that social media is their main source of information about COVID-19. The mean knowledge score was 16.5 ( $SD = 4.2$ ), which represents 66% of the highest possible score. Medical students scored higher knowledge level ( $M = 17.9$ ,  $SD = 3.6$ ), than nursing students ( $M = 14.7$ ,  $SD = 4.2$ ,  $p < 0.01$ ). The students expressed different perceptions toward COVID-19 infection. A (40.1%) of students perceived COVID-19 as fatal disease. Likewise, 58.5% believed that infected persons should be isolated in healthcare settings. Further, (84.7%) of the students expressed their worries about spreading the infection to their family. Participants reported high level of public precautionary behavior ( $M = 44.1$ ,  $SD = 5.0$ ), which represents 84.6% of the highest score. Medical students reported higher level of public precautionary practices ( $M = 45.1$ ,  $SD = 4.1$ ), than nursing students ( $M = 43.0$ ,  $SD = 5.8$ ,  $p < 0.01$ ). Finally, Pearson correlation showed a significant positive relationship between the total knowledge and precautionary practices scores ( $r = 0.52$ ,  $p < 0.001$ ).

**Conclusion:** This study suggests that in time of infectious outbreak, more efforts should be done toward preparing the healthcare students to deal with the outbreak. Preparing students with the right knowledge, attitude, and precautionary practices during the COVID-19 outbreak is very essential in facilitating a healthy academic environment. This can be achieved by incorporating lesson plans in the curriculum and sharing real-life scenarios. Furthermore, directing students to seek information from reliable sources is very important. Most of the time, the public is looking at healthcare students as sources of information and role models. Thus, healthcare students can play a major role in increasing public awareness about COVID-19 precautionary practices.

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**Title:**

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**Keywords:**

COVID-19 knowledge, COVID-19 precautionary practices and Healthcare students' preparedness

**Abstract Summary:**

Are we prepare our healthcare students enough to deal with COVID-19 or possible future infectious diseases outbreaks? To which extend our healthcare students are practicing the precautionary behaviors protect themselves and other from the infection?

**Late Breaking Reason:**

Findings from this study can inform healthcare professional educators about the preparations of the healthcare students to deal with COVID-19 or possible future outbreaks.

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First Primary Presenting Author

***Primary Presenting Author***

Omar Al-Rawajfah, PhD, RN, FAAN, RN, PhD  
Sultan Qaboos University/College of Nursing  
College of Nursing/Adult and Critical Care Department  
Associate Professor and Dean College of Nursing  
Muscat  
Oman

**Author Summary:** Dr. Rawajfah is a nursing leader and academician. He is known advocate of infection control through his research and mentorship of faculty and students in this area.

Second Author

Khalid A. Al-Mugeed, MSN, RN  
Near East University Faculty of Nursing, Nicosia  
Lecturer  
Nicosia  
Cyprus

**Author Summary:** Mr. Al-Mugeed is a novice researcher who is very enthusiastic about nursing research. He is conducting his PhD studies and he is interested in infection control issues.

Third Author

Fawwaz Alaloul, PhD, MSN, MPH, RN  
Sultan Qaboos University  
Associate Professor  
Muscat  
Oman

**Author Summary:** Dr. Fawwaz Alaloul is senior nursing academician and researcher. He has severed in different international nursing colleges. He supervised many graduate students. My area of research focuses on psychosocial aspect of care.

Fourth Author

Hajar Mohammed Al-Rajaibi, PhD, MD  
Sultan Qaboos University  
Assistant Dean for Undergraduate Studies  
Muscat  
Oman

**Author Summary:** Dr. Al-Rajaibi is a medical academician. She is interested in medical

education and interprofessional collaboration and education. She is serving as assistant dean for undergraduate studies.