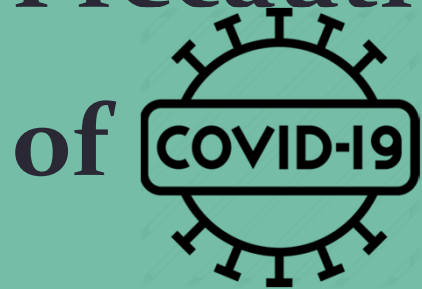


CREATING

HEALTHY WORK ENVIRONMENTS



Omani Healthcare Professional Students' Knowledge and Precautionary Practices



Dr. Omar Al Rawajfah, PhD, RN, FAAN



Background



- In March 11, 2020, the WHO declared that the COVID-19 outbreak has reached the pandemic level.
- The spread of the pandemic has created drastic challenges and changes in all aspects of life, especially in healthcare professionals' education.
- It is important to assess the healthcare students' preparedness level, in terms of knowledge, attitude and practices regarding any emerging infectious outbreak.

Study Objective



- In Oman, no studies have been conducted to assess healthcare professional students' knowledge, attitude and practices related to the emerging COVID-19 pandemic.
- This study aimed to assess the preparedness level of medical and nursing students to care for COVID-19 patients.



Study Methods



- This study used a cross-sectional, descriptive design. The study involved data collection using the Web-based survey method.



- **Settings and Sampling**

- Two nursing BSN and One medical programs participated in the study
- Initial invitations
 - 500 Medical students
 - 700 Nursing students



Study Methods

- The study was ethically approved by Sultan Qaboos University.
- **Study Instrument**
 - Developed based on the most recent available recommendations by the WHO and the CDC (2020)
 - Student's demographics
 - COVID-19 knowledge: 25 questions with the response options 'true', 'false', or 'I don't know'
 - Precautionary practices, 13 items with a 4-point Likert scale ranging from 1 (never) to 4 (always)



Study Methods

- **Study Instrument**

- The study tool was reviewed and validated for content by two professors of infectious diseases and an infection control background.
- All items were in the English language as it is the instructional language for both medical and nursing programs.
- Using the current study sample, the internal consistency coefficients were 0.76, 0.79, for knowledge, and practice subscales, respectively.



Data Analysis



- Data were analyzed using SPSS®-PC Version 23.
- Descriptive statistics, including frequencies, percentages, means and standard deviations, were used.
- Independent t-test and one-way ANOVA were used to compare mean total knowledge and practice scores across different variables.
- Pearson's correlation was used to test for possible association between the total knowledge and practice scores.



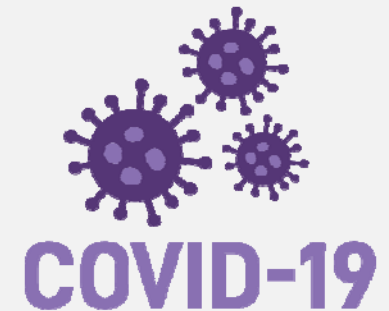
Results



Characteristic	Number of Students (%) N = 222
Mean of Age (SD)	21.9 (2.4)
Mean GPA (SD)	3.0 (0.57)
Gender	
Female	133 (59.9)
Male	89 (40.1)
Academic Program	
Medical	122 (55)
Nursing	100 (45)
Academic Level	
1 st year	30 (13.5)
2 nd year	39 (17.6)
3 rd year	30 (13.5)
4 th year	57 (25.7)
5 th year	41 (18.5)



Results..



Family member or a friend with COVID-19

Yes	117 (52.7)
No	105 (47.3)

Information about COVID-19 from the college

Yes	144 (64.9)
No	78 (35.1)

Satisfaction with actions taken by your college related to COVID-19

1 – 3	54 (24.3)
4 – 7	111 (50)
8 – 10	57 (25.7)

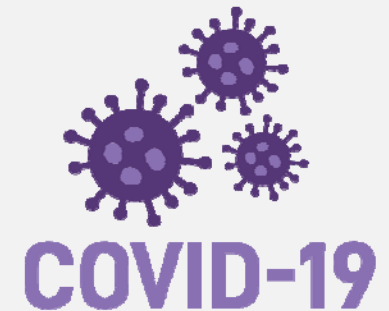
Attend formal lectures related to COVID-19

Yes	69 (31.1)
No	153 (68.9)

Are you prepared to deal with COVID-19 or similar pandemic

Not at all prepared	22 (9.9)
Somewhat prepared	118 (53.2)
Well prepared	82 (36.9)

Results...



COVID-19 Knowledge

- **Clinical manifestations**

- 55 % thought it is similar to seasonal flu
- 63% correctly identified mode of transmission
- 79% correctly answered when to seek help in case of direct contact with a suspected case



- **Diagnosis and Prevention**

- 95% correctly identified High risk group
- 73% incorrectly answered the requirement of N95 mask.

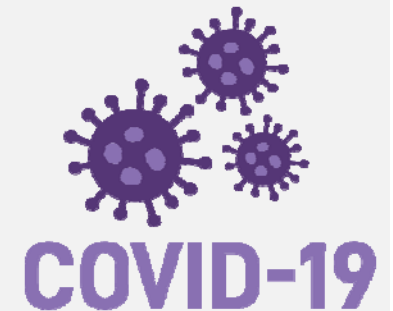
Results....

- **Diagnosis and Prevention**

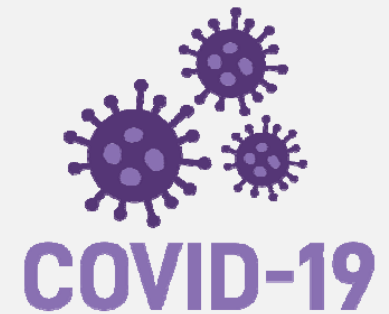
- 90% correctly identified diagnostic test for COVID-19
- 80% incorrectly answered the role of hand sanitizer to prevent the infection.

- **Treatment**

- 46% incorrectly answered that regular Antiviral medications can be used to treat COVID-19
- 84% incorrectly answered that Dexamethasone is a standard treatment for COVID-19
- 60% unable to know the approximate mortality rate of the infected cases in Oman

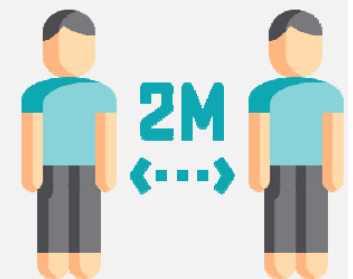
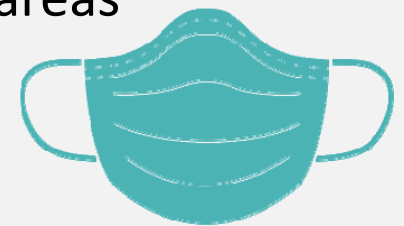


Results.....

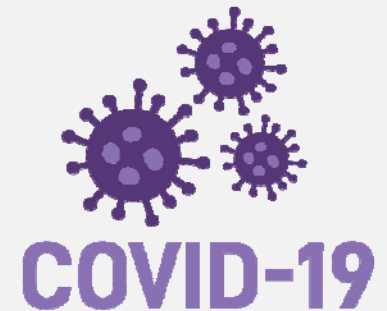


COVID-19 Precautionary Practices

- 82% always wear mask/face cover when I am in public areas
- 55 % always practice social distancing
- 47% always avoid touching the face and the mask
- 67% always encourage others to follow the precautionary practices
- 21% rarely or never monitor COVID-19 symptoms on the surrounding people



Results.....



- **Factors Associated with Knowledge and Practice Scores**
- Medical students scored higher knowledge level ($M = 17.9$, $SD = 3.6$), than nursing students ($M = 14.7$, $SD = 4.2$, $p < 0.01$).
- Medical students reported a higher level of public precautionary practices ($M = 45.1$, $SD = 4.1$), than nursing students ($M = 43.0$, $SD = 5.8$, $p < 0.01$).
- Knowledge and practice levels were statistically different across the different academic levels of the students ($F = 2.44$, $p = 0.035$) and ($F = 2.70$, $p = 0.023$),
- Pearson's correlation showed a significant positive relationship between the total knowledge and precautionary practices score ($r = 0.52$, $p < 0.001$).

Discussion



- The overall knowledge of the health-care students about the current COVID-19 is not optimal, as only about one-quarter of the sample scored more than 75% of the maximum score
- The overall knowledge score in the current study is lower than scores reported from other countries within the region, such as Jordan (Khasawneh et al., 2020), Turkey (Caliskan et al., 2020) and Iran (Taghrir et al., 2020).
- The majority of the students (75%) depend on social media as a major source of information about COVID-19. Although social media is considered convenient and accessible to most of the students, the information posted on it may not be accurate and could mislead the students.

Discussion..



- In the current study, we have included items related to the available treatment options, which are mostly likely of more interest to medical students than nursing students. For example, in the current study, the majority (60.1%) of medical students correctly answered the question related to the use of antiviral therapy in treating COVID-19, compared to 45% of nursing students ($\chi^2 = 5.4, p = 0.02$).
- The current study revealed that the students reported a good level of public precautionary practices.
 - This finding is consistent with other studies around the globe (Hamza et al., 2020; Modi et al., 2020). Previous research (Byszewski et al., 2012; Tagawa, 2016) has shown that health-care students perceived themselves as role models in compliance with health-care instructions.

Conclusion



- The results from this study suggested that in times of infectious outbreak, more efforts should be made toward preparing health-care students to deal with the outbreak.
- Furthermore, directing students to seek information from reliable sources is very important.
- It is important to cultivate role model behavior in health-care students. Within the COVID-19 context, by acting as role models, health-care students can play a major role in public awareness.

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End of the Presentation



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